

**biolab**  
FOR SPLENDID ISOLATION

**Manual**  
14<sup>th</sup> edition

# Certificate

Standard **ISO 9001:2008**

Certificate Registr. No. **75 100 10307**

TÜV Rheinland InterCert Kft. certifies:


Certificate Holder: **BIOLAB Diagnosztikai Laboratórium Zrt.**  
Öv utca 43.  
H - 1141 Budapest  
Hungary

Scope: production and distribution of microbiological culture media and microbiological plastic disposables.

An audit was performed. Proof has been furnished that the requirements according to MSZ EN ISO 9001:2009 (ISO 9001:2008) are fulfilled.

Validity: The certificate is valid from **2015.06.11** until **2018.06.10**.  
First certification: 2009.

Budapest, 2015.06.11.

  
TÜV Rheinland InterCert Kft.  
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www.tuv.hu



MIR TANÚSÍTÓ  
NAT-4-0054/2011



**TÜVRheinland®**  
Precisely Right.

**Dear Inquirer,**

You are holding the Dehydrated Culture Media Manual of BIOLAB Inc., the leading Hungarian manufacturer and distributor of microbiological products. As a result of our 25 years of continuous development, you can find over 500 products on the following pages. We hope that you will find all necessary information for preparing media.

Our products are manufactured under ISO 9001:2008 quality assurance system and CE marked.

Culture media of Biolab Inc. are manufactured by the newest technology. The extreme stability of the products is assured by the careful choice of top quality raw materials and the multi-level quality control procedures.

This manual is divided into three parts:



**RAW MATERIALS**



**DEHYDRATED CULTURE MEDIA**

Alphabetical list of media



**SUPPLEMENTS**

Budapest, 2015





**RAW  
MATERIALS**



# I. RAW MATERIALS

## BACTERIOLOGICAL AGAR

Bacteriological agar is a gelling agent used in the preparation of culture media and other bacteriological applications. Its main advantage is the absence of inhibitors that could hinder optimal development of microorganisms. In addition, bacteriological agar also possesses other attributes such as transparency, high hysteresis and very reliable reproducibility.

|              |  |
|--------------|--|
| Code Number: | <b>500 g: BAA10500, 1000 g: BAA11000</b> |
| Colour:      | <b>Cream</b>                             |
| Appearance:  | <b>Fine powder</b>                       |

### Physico-chemical characteristics

| Parameter                                | Specification               |
|--|-----------------------------|
| Particle size                            | 80 – 150 mesh               |
| Gel strength (Nikkan) after autoclaving  | 800 – 950 g/cm <sup>2</sup> |
| Loss on drying                           | < 12 %                      |
| Water absorption                         | > 45 ml                     |
| Total ashes                              | < 5 %                       |
| pH (1,5% solution) gel after autoclaving | 6 – 7,5                     |
| Clarity                                  | < 10 NTU                    |
| Viscosity                                | > 10 cps                    |
| Gelling point                            | 33–37 °C                    |
| Melting point                            | 85–95 °C                    |
| Ca                                       | < 1500 ppm                  |
| Mg                                       | < 500 ppm                   |
| Total heavy metals                       | < 20 ppm                    |

### Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 5 000/g     |
| Coliforms                     | absent        |
| <i>Escherichia coli</i>       | absent        |
| <i>Salmonella</i> spp.        | absent        |
| Yeasts and moulds             | ≤ 100/g       |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

### Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## BILE SALT No.3

Bile salt No.3 is prepared by refinement of bile salt in order to meet the demand for use as a selective agent.

|              |   |
|--------------|---|
| Code Number: | <b>100 g: BBS10100, 500 g: BBS10500</b>     |
| Colour:      | <b>White</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter                   | Specification |
|-----------------------------|---------------|
| Solubility in water 2%      | Complete      |
| pH (2% autoclaved solution) | 7,5 – 9,0     |
| Loss on drying              | ≤ 5 %         |
| Residue on ignition         | ≤ 15 %        |
| Sodium cholate              | 45 – 55 %     |
| Sodium deoxycholate         | 45 – 55 %     |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## BACTERIOLOGICAL PEPTONE

It is obtained through the enzymatic digestion of animal proteins and has a wide applications as ingredient of routine media.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: BAP10500, 1000 g: BAP11000</b>    |
| Colour:      | <b>Cream</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 6,2 – 7,3     |
| Loss on drying         | ≤ 6 %         |
| Residue on ignition    | ≤ 16 %        |
| Total nitrogen TN      | 12,0 – 13,5 % |
| α-amino nitrogen AN    | 3,0 – 4,5 %   |
| AN/TNx100              | 22 – 38       |

## CASEIN PEPTONE

It is obtained by prolonged pancreatic digestion of the casein, in order to provide a large content of free amino-acids and small peptides.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: CAP10500, 1000 g: CAP11000</b>    |
| Colour:      | <b>Cream</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter                         | Specification |
|-----------------------------------|---------------|
| Solubility in water (5% solution) | Complete      |
| pH (5% solution)                  | 6,5 – 7,5     |
| Loss on drying                    | ≤ 6 %         |
| Residue on ignition               | ≤ 16 %        |
| Total nitrogen TN                 | 12,5 – 13,5 % |
| α-amino nitrogen AN               | 3,0 – 4,0 %   |
| AN/TNx100                         | 22 – 33       |

# I. RAW MATERIALS

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## GELATINE PEPTONE

Gelatine peptone is manufactured by pancreatic digestion from pork gelatine. Due to the amino-acid composition of the gelatine, the peptone provides high level of proline and hydroxyproline but does not contain tryptophan. Gelatine peptone shows relatively low growth promotion properties and it is designed for non fastidious bacteria. It is compatible with phosphates and it is often used in combination with other peptones in the media formulation.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: GEP10500, 1000 g: GEP11000</b>    |
| Colour:      | <b>Cream</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (2% solution)       | 6.6 – 7.3     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 12 %        |
| Total nitrogen TN      | 13,0 – 17,0 % |
| α-amino nitrogen AN    | 2.0 – 3.5 %   |
| AN/TNx100              | 12 – 27       |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 100/g       |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |
| <i>Staphylococcus aureus</i>  | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## MALT EXTRACT

Malt extract is prepared by means of purification steps in order to achieve a product showing clear solution. It is rich in carbohydrates, mainly maltose. It is intended for the culture of yeasts and moulds.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: MAE10500, 1000 g: MAE11000</b>    |
| Colour:      | <b>Pale-yellow</b>                          |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (2% solution)       | 5,0 – 6,0     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 5 %         |
| Reducing sugars        | 75 – 95 %     |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 5 000/g     |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 100/g       |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |
| <i>Staphylococcus aureus</i>  | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## MEAT EXTRACT

Meat extract is manufactured by a controlled enzymatic hydrolysis of beef with low fat and sinew content and can be considered as complementing the nutritive properties of peptone by contributing minerals, phosphates, energy sources and those essential factors missing from peptone.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: MEE10500, 1000 g: MEE11000</b>    |
| Colour:      | <b>Pale-yellow</b>                          |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 5 – 7         |
| Loss on drying         | ≤ 7 %         |
| Residue on ignition    | ≤ 7 %         |
| Total nitrogen TN      | 12,0 – 14,4 % |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 5 000/g     |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 100/g       |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |
| <i>Staphylococcus aureus</i>  | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**



# I. RAW MATERIALS

## MEAT PEPTONE

Meat peptone (pepsin digested) is manufactured by enzymatic hydrolysis of selected fresh meat. Its good promotion properties make it suitable for the cultures of aerobic and anaerobic bacteria. It is commonly used for production of toxins from organisms such as *Corynebacterium* and *Clostridium* spp.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: MPE10500, 1000 g: MPE11000</b>    |
| Colour:      | <b>Beige</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 6.0 – 7.5     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 15 %        |
| Total nitrogen TN      | 12.0 – 13.0 % |
| α-amino nitrogen AN    | 3.5 – 4.5 %   |
| AN/TNx100              | 27 – 38       |

### Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 5 000/g     |
| Coliforms                     | Absent        |
| Yeasts and moulds             | ≤ 100/g       |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## MYCOLOGICAL PEPTONE

Mycological peptone was developed especially for the culturing and isolation of pathogenic and non pathogenic fungi. This product gives rapidly a luxuriant growth with typical morphology and pigmentation.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: FUP10500, 1000 g: FUP11000</b>    |
| Colour:      | <b>Beige</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 6.0 – 7.0     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 15 %        |
| Total nitrogen TN      | 10.0 – 12.5 % |
| α-amino nitrogen AN    | 3.8 – 5.0 %   |
| AN/TNx100              | 30 – 50       |

### Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## PROTEOSE PEPTONE

Proteose peptone is manufactured from selected fresh meat and animal tissue by enzymatic hydrolysis. Its special formulation enhances the growth properties and makes it very suitable ingredient in the media intended for the productions of bacterial toxins (*Corynebacterium diphtheriae*) as well as in the media for the cultivation of a variety of bacteria having different nutritive needs (gonococci, pneumococci, streptococci, staphylococci).

|              |   |
|--------------|---|
| Code Number: | <b>500 g: PRP10500, 1000 g: PRP11000</b>    |
| Colour:      | <b>Beige</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 6.0 – 7.0     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 18 %        |
| Total nitrogen TN      | 12.1 – 13.2 % |
| α-amino nitrogen AN    | 3.5 – 4.5 %   |
| AN/TNx100              | 29 – 37       |

### Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## SOYA PEPTONE

Soya peptone is manufactured by papain hydrolysis of defatted soya flour. It shows very high nutritive properties, providing rapid vigorous growth of usual micro-organisms, including yeasts and moulds. It contains high content of carbohydrates, therefore it is not suitable for studying sugar fermentation.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: SOP10500, 1000 g: SOP11000</b>    |
| Colour:      | <b>Beige</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

### Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (2% solution)       | 6.7 – 7.5     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 14 %        |
| Total nitrogen TN      | 8.0 – 11.0 %  |
| α-amino nitrogen AN    | 2.0 – 3.5 %   |
| AN/TNx100              | 18 – 44       |

# I. RAW MATERIALS

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## TRYPTONE

Mix of peptides and free amino acids obtained through pancreatic digestion of casein. The product is a good source of organic nitrogen and growth factors in culture media for analytical microbiology and industrial fermentation.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: TRP10500, 1000 g: TRP11000</b>    |
| Colour:      | <b>Cream</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 7.0 – 7.3     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 15 %        |
| Total nitrogen TN      | 12,5 – 13,5 % |
| α-amino nitrogen AN    | 3,0 – 4,0 %   |
| AN/TNx100              | 23 – 27       |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## TRYPTOSE

It is blend of peptones prepared from animal tissues and protein of animal origin, suitable for the media intended for culture of *Streptococcus* spp. and other delicate micro-organisms. Owing to the nutritive properties of its composition, tryptose shows good performances in the isolation and culture of fastidious strains.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: TRY10500, 1000 g: TRY11000</b>    |
| Colour:      | <b>Beige</b>                                |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (5% solution)       | 6.0 – 7.5     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 15 %        |
| Total nitrogen TN      | 12,0 – 13,0 % |
| α-amino nitrogen AN    | 3,5 – 4,5 %   |
| AN/TNx100              | 27 – 38       |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 10 000/g    |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 20/g        |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**

## YEAST EXTRACT

Yeast extract is obtained through autolysis of the cells (enzymatic digestion by its own enzymes) from *Saccharomyces cerevisiae*. Therefore the resulting extract consists of amino-acids, oligo-peptides, carbohydrates, vitamins and purine and pyrimidine bases from nucleic acids. This natural composition of yeast extract, rich in growth factors, make it a widely used ingredient for improving the growth promotion properties of the media. It contains high content of carbohydrates, therefore it is not suitable for studying sugar fermentation.

|              |   |
|--------------|---|
| Code Number: | <b>500 g: YEE10500, 1000 g: YEE11000</b>    |
| Colour:      | <b>Pale-yellow</b>                          |
| Appearance:  | <b>Fine powder, easily soluble in water</b> |

## Physico-chemical characteristics

| Parameter              | Specification |
|------------------------|---------------|
| Solubility in water 2% | Complete      |
| pH (2% solution)       | 6.5 – 7.5     |
| Loss on drying         | ≤ 5 %         |
| Residue on ignition    | ≤ 18 %        |
| Total nitrogen TN      | 8,0 – 10,0 %  |
| α-amino nitrogen AN    | 2,3 – 4,0 %   |
| AN/TNx100              | 23 – 50       |

## Microbiological characteristics

| Parameter                     | Specification |
|-------------------------------|---------------|
| Total aerobic microbial count | ≤ 5 000/g     |
| Coliforms                     | ≤ 10/g        |
| Yeasts and moulds             | ≤ 100/g       |
| <i>Escherichia coli</i>       | Absent        |
| <i>Salmonella</i> spp.        | Absent        |
| <i>Staphylococcus aureus</i>  | Absent        |

**Storage conditions:** Protected from light, at room temperature.

### Warning!

Hygroscopic product. Avoid heat and moisture.

**In vitro diagnostic raw material – for professional use only!**



# **DEHYDRATED CULTURE MEDIA**



## II. DEHYDRATED CULTURE MEDIA

### Alphabetical list of media

#### A-1 BROTH BASE

A non-selective medium for the detection of coliforms.

##### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: A1B20500, 5 kg: A1B25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **31 g** in one litre of distilled water. **Add 1 ml of Triton X-100 Supplement (TXS80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

##### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: A1B30100, 500 ml: A1B30500</b> |
| Tubed media:   | <b>150 x 15 mm: A1B40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9</b>                                |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

##### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 20,5 |
| Lactose         | 5,0  |
| Salicin         | 0,5  |
| Sodium chloride | 5,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

##### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                      | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good with gas production    |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good without gas production |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                   |                       |

**References:** Andrews and Presnell (1972) Appl. Microbiol. 23: 521.

#### ACETAMIDE BROTH

A synthetic differential medium for the enrichment and differentiation of *Pseudomonas aeruginosa*.

##### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ACB20500, 5 kg: ACB25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **3,4 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

##### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ACB30100, 500 ml: ACB30500</b> |
| Tubed media:   | <b>100 x 12 mm: ACB40003 (3 ml)</b>       |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

##### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Acetamide          | 2,000  |
| Sodium chloride    | 0,200  |
| Magnesium sulphate | 0,200  |
| Sodium molybdate   | 0,0050 |
| Ferrous sulphate   | 0,0005 |
| Buffers            | 1,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

##### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, yellow colour with Nessler's reagent         |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited, no colour change with Nessler's reagent |                       |

**References:** ISO 16266

#### ACETATE DIFFERENTIAL AGAR

A synthetic differential medium for the differentiation of *Shigella* spp. from *Escherichia coli*.

##### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ADA20500, 5 kg: ADA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **29 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

##### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: ADA30100, 500 ml: ADA30500</b>  |
| Tubed media:   | <b>100 x 12 mm: ADA40002 (2 ml, slant)</b> |
| Colour:        | <b>Green</b>                               |
| pH (25 °C):    | <b>6,7 – 6,9</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

##### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Sodium acetate     | 2,00  |
| Sodium chloride    | 5,00  |
| Magnesium sulphate | 0,20  |
| Bromothymol blue   | 0,08  |
| Buffers            | 2,00  |
| Agar               | 19,80 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth                           | Incubation time: 24 h |
|-------------------------|------------------------|----------------------------------|-----------------------|
| <i>Escherichia coli</i> | ATCC 25922             | Positive – colour change to blue |                       |
| <i>Shigella sonnei</i>  | ATCC 25931             | Negative – no colour change      |                       |

References: Trabulsi and Ewing (1962) Public Health Lab. 20: 137.

### AEROMONAS AGAR BASE

A selective medium for the isolation of *Aeromonas* spp.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: AEA20500, 5 kg: AEA25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 8,0 (approx.) at 25 °C          |

**Direction:** Suspend 30 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of one vial of **Aeromonas Selective Supplement (AES80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: AEA30100, 500 ml: AEA30500 |
| Tubed media:   | 55 mm: AEA50055, 90 mm: AEA50090   |
| Colour:        | Greenish blue                      |
| pH (25 °C):    | 7,9 – 8,1                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 9,00  |
| Bile salt               | 3,00  |
| Xylose                  | 3,75  |
| Sorbitol                | 3,00  |
| Inositol                | 2,50  |
| Lactose                 | 1,50  |
| Sodium thiosulphate     | 10,87 |
| Sodium chloride         | 5,00  |
| Ferric ammonium citrate | 0,80  |
| L-Lysine                | 3,50  |
| L-Arginine              | 2,00  |
| Bromothymol blue        | 0,04  |
| Thymol blue             | 0,04  |
| Agar                    | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                       | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Aeromonas hydrophila</i>   | ATCC 7966              | Good, opaque green colonies with dark centre |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Tiny, translucent blue/green colonies        |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                                    |                       |

References: Havelaar et al. (1987) J. Appl. Bact. 62: 279.

### ANAEROBE ISOLATION AGAR

A non-selective medium designed to give optimum growth of nutritionally exacting anaerobe micro-organisms.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: AIA20500, 5 kg: AIA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend 46 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If addition of blood is necessary, cool to 50 °C and add aseptically 50 ml of sterile defibrinated blood. Mix well before pouring.

#### Prepared media

|                            |  |
|----------------------------|--|
| Bottled media:             | 100 ml: AIA30100, 500 ml: AIA30500     |
| Plated blood-free agar:    | 55 mm: AIA50055, 90 mm: AIA50090       |
| Plated blood agar:         | 55 mm: AIA50055-BA, 90 mm: AIA50090-BA |
| Colour of blood-free agar: | Yellowish                              |
| Colour of blood agar:      | Ruby red                               |
| pH (at 25 °C):             | 7,1 – 7,3                              |

**Direction:** If necessary, blood may be added to the melted bottled media according to the direction of the dehydrated media. Dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 23,400 |
| Glucose                                 | 1,000  |
| Starch soluble                          | 1,000  |
| Sodium chloride                         | 5,000  |
| L-Arginine                              | 0,500  |
| L-Cysteine                              | 0,500  |
| Growth promoters                        | 0,830  |
| Vitamins                                | 0,011  |
| Buffers                                 | 0,760  |
| Agar                                    | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control of blood-free agar:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>    | ATCC 25285             | Good (under anaerobic conditions) |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

#### Quality Control of blood agar:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Bacteroides fragilis</i>    | ATCC 25285             | Good, without haemolysis (under anaerobic conditions)     |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, with target haemolysis (under anaerobic conditions) |                       |

## II. DEHYDRATED CULTURE MEDIA

### ANAEROBE ISOLATION BROTH

A non-selective medium for the general growth of anaerobic micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: AIB20500, 5 kg: AIB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **33 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: AIB30100, 500 ml: AIB30500</b> |
| Tubed media:   | <b>150 x 15 mm: AIB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 23,400 |
| L-Arginine                              | 0,500  |
| L-Cysteine                              | 0,500  |
| Glucose                                 | 1,000  |
| Starch soluble                          | 1,000  |
| Sodium chloride                         | 5,000  |
| Growth promoters                        | 0,830  |
| Vitamins                                | 0,011  |
| Buffers                                 | 0,760  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>    | ATCC 25285             | Good (under anaerobic conditions) |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

### ANTIBIOTIC ASSAY MEDIA

See: Antibiotic Assay Media (page 136)

NEW PRODUCT

### ANTIBIOTIC ASSAY MEDIUM E

Medium for the microbiological assay of antibiotics according to pharmacopoeia.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: AME20500, 5 kg: AME25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **44,9 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: AME30100, 500 ml: AME30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,8 - 8,0</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes.

#### FORMULA in g/l

|   |      |
|---|------|
| Peptone   | 5,0  |
| Beef extract                                      | 3,0  |
| Disodium hydrogen phosphate x 12 H <sub>2</sub> O | 26,9 |
| Agar  | 10,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|--------------------------|------------------------|--------|-----------------------|
| <i>Bacillus subtilis</i> | ATCC 6633              | Good   |                       |
| <i>Bacillus pumilus</i>  | ATCC 14884             | Good   |                       |

**References:** European Pharmacopoeia

NEW PRODUCT

### ANTIBIOTIC ASSAY MEDIUM No.24

Medium for the microbiological assay of antibiotics according to pharmacopoeia.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: A0220500, 5 kg: A0225000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **26 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: A0230100, 500 ml: A0230500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,5 – 6,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes.

#### FORMULA in g/l

|               |      |
|---------------|------|
| Peptone       | 6,0  |
| Yeast extract | 3,0  |
| Beef extract  | 1,5  |
| Agar          | 15,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** European Pharmacopoeia

## II. DEHYDRATED CULTURE MEDIA

### APT AGAR BASE

A non-selective medium for the cultivation and enumeration of lactic acid bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: APT20500, 5 kg: APT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **59 g** in one litre of distilled water. Add **1 ml** of **TWEEN 80 Supplement (TWS80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: APT30100, 500 ml: APT30500</b> |
| Plated media:  | <b>55 mm: APT50055, 90 mm: APT50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,6 - 6,8</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 20,000 |
| Glucose            | 10,000 |
| Sodium chloride    | 5,000  |
| Sodium citrate     | 5,000  |
| Magnesium sulphate | 0,800  |
| Manganese chloride | 0,140  |
| Ferrous sulphate   | 0,001  |
| Thiamine HCl       | 0,001  |
| Buffers            | 5,000  |
| Agar               | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth | Incubation time: 48 h |
|--------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus fermentum</i> | ATCC 9338              | Good   |                       |

**References:** Evans and Niven (1951) J. Bact. 62: 599.

NEW PRODUCT

### APT BROTH BASE

A non-selective medium for the cultivation of lactic acid bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: APB20500, 5 kg: APB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **46 g** in one litre of distilled water. Add **1 ml** of **TWEEN 80 Supplement (TWS80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into final containers. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: APB30100, 500 ml: APB30500</b> |
| Tubed media:   | <b>150 x 15 mm: APB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,6 - 6,8</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 20,000 |
| Glucose            | 10,000 |
| Sodium chloride    | 5,000  |
| Sodium citrate     | 5,000  |
| Magnesium sulphate | 0,800  |
| Manganese chloride | 0,140  |
| Ferrous sulphate   | 0,001  |
| Thiamine HCl       | 0,001  |
| Buffers            | 5,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth | Incubation time: 48 h |
|--------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus fermentum</i> | ATCC 9338              | Good   |                       |

**References:** Evans and Niven (1951) J. Bact. 62: 599.

### ARGININE BROTH

A selective and differential medium for the cultivation of *Pseudomonas aeruginosa*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ARB20500, 5 kg: ARB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ARB30100, 500 ml: ARB30500</b> |
| Tubed media:   | <b>150 x 15 mm: ARB40010 (10 ml)</b>      |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,9 - 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                  |          |
|------------------|----------|
| Peptones         | 19,50000 |
| L-Arginine       | 10,00000 |
| Glucose          | 0,50000  |
| Sodium chloride  | 5,00000  |
| cresol red       | 0,02000  |
| Bromothymol blue | 0,00750  |
| Brilliant green  | 0,00038  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.



## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, colour change to pink – violet |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Good, colour change to yellow        |                       |

References: Schubert (1989) Zbl. Bakt. Hyg. B 187: 266.

### ASPARAGINE BROTH BASE

A selective medium for the enumeration and detection of *Pseudomonas aeruginosa*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ASB20500, 5 kg: ASB25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **11 g** in one litre of distilled water. Add **8 ml of Glycerol Supplement (GLC80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into final containers. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ASB30100, 500 ml: ASB30500</b> |
| Tubed media:   | <b>150 x 15 mm: ASB40010 (10 ml)</b>      |
| Colour:        | <b>Water clear</b>                        |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |     |
|--------------------|-----|
| DL Asparagine      | 3,0 |
| Magnesium sulphate | 0,5 |
| Buffers            | 7,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

References: APHA (2005) Standard Methods for the Examination of Water and Wastewater, 21<sup>st</sup> ed.

### AZIDE DEXTROSE BROTH, ROTHE

A selective medium for the detection of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ADR20500, 5 kg: ADR25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ADR30100, 500 ml: ADR30500</b> |
| Tubed media:   | <b>150 x 15 mm: ADR40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 20,4 |
| Glucose         | 5,0  |
| Sodium chloride | 5,0  |
| Sodium azide    | 0,2  |
| Buffers         | 5,4  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 51299             | Good      |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited |                       |

References: Greenberg et al. (1985) APHA, Standard Methods for the Examination of Water and Wastewater, 16<sup>th</sup> ed.

### AZIDE DEXTROSE BROTH

A selective medium for the detection of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ADB20500, 5 kg: ADB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ADB30100, 500 ml: ADB30500</b> |
| Tubed media:   | <b>150 x 15 mm: ADB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 19,8 |
| Glucose         | 7,5  |
| Sodium chloride | 7,5  |
| Sodium azide    | 0,2  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 51299             | Good      |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited |                       |

**References:** Mallmann and Seigmann (1950) Am. J. Public Health 40: 286.

### BACILLUS CEREUS (PEMBA) AGAR BASE

A selective and differential medium for the isolation and enumeration of *Bacillus cereus*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: BCA20500, 5 kg: BCA25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend **40 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of Sterile Egg Yolk Polymyxin (PEMBA) Emulsion (EYP80050-01)**. Mix well before pouring.

#### Prepared media

|                          |                                    |
|--------------------------|------------------------------------|
| Bottled media:           | 100 ml: BCA30100, 500 ml: BCA30500 |
| Plated media:            | 55 mm: BCA50055, 90 mm: BCA50090   |
| Colour of bottled media: | Green, transparent                 |
| Colour of plated media:  | Green, homogeneous turbid          |
| pH (at 25 °C):           | 7,1 – 7,3                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 1,00  |
| Mannitol           | 10,00 |
| Sodium pyruvate    | 10,00 |
| Sodium chloride    | 2,00  |
| Magnesium sulphate | 0,10  |
| Bromothymol blue   | 0,12  |
| Buffers            | 2,75  |
| Agar               | 14,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                                    | Incubation time: 48 h |
|--------------------------|------------------------|---|-----------------------|
| <i>Bacillus cereus</i>   | ATCC 11778             | Good, blue colonies with precipitate halo |                       |
| <i>Bacillus subtilis</i> | ATCC 6633              | Moderate, yellow colonies without halo    |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Inhibited                                 |                       |

**References:** Holbrook and Anderson (1980) Can. J. Microbiol. 26: 753.

### BACILLUS CEREUS (PREP) AGAR BASE

A selective and differential medium for the enumeration of *Bacillus cereus*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: BPR20500, 5 kg: BPR25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend **46 g** in 900 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **100 ml of Sterile Egg Yolk Polymyxin (PREP) Emulsion (EYP80100-02)**. Mix well before pouring.

#### Prepared media

|                          |                                    |
|--------------------------|------------------------------------|
| Bottled media:           | 100 ml: BPR30100, 500 ml: BPR30500 |
| Plated media:            | 55 mm: BPR50055, 90 mm: BPR50090   |
| Colour of bottled media: | Red, transparent                   |
| Colour of plated media:  | Orange, homogeneous turbid         |
| pH (at 25 °C):           | 7,1 – 7,3                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 11,000 |
| Mannitol        | 10,000 |
| Sodium chloride | 10,000 |
| Phenol red      | 0,025  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                                    | Incubation time: 48 h |
|--------------------------|------------------------|---|-----------------------|
| <i>Bacillus cereus</i>   | ATCC 11778             | Good, pink colonies with precipitate halo |                       |
| <i>Bacillus subtilis</i> | ATCC 6633              | Moderate, yellow colonies without halo    |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Inhibited                                 |                       |

**References:** Mossel et al. (1967) Appl. Microbiol. 15: 650.

### BACTEROIDES BILE ESCULIN AGAR

A selective and differential medium for the isolation and presumptive identification of *B. fragilis* group.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: BBE20500, 5 kg: BBE25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend **62 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: BBE30100, 500 ml: BBE30500 |
| Plated media:  | 55 mm: BBE50055, 90 mm: BBE50090   |
| Colour:        | Yellowish                          |
| pH (25 °C):    | 7,1 – 7,3                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |      |
|-------------------------|------|
| Anaerobe Isolation Agar | 45,4 |
| Bacteriological bile    | 15,0 |
| Ferric citrate          | 0,5  |
| Esculin                 | 1,0  |
| Gentamicin              | 0,1  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Bacteroides fragilis</i>    | ATCC 25285             | Good, esculin hydrolysis (under anaerobic conditions) |                       |
| <i>Escherichia coli</i>        | ATCC 25922             | Inhibited   |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Inhibited (under anaerobic conditions)                |                       |

**References:** Livingston et al. (1978) J. Clin. Microbiol. 7: 448.

### BAGG BROTH BASE

A selective medium for the cultivation of faecal streptococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BAG20500, 5 kg: BAG25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BAG30100, 500 ml: BAG30500</b> |
| Tubed media:   | <b>150 x 15 mm: BAG40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (25 °C):    | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 20,000 |
| Glucose            | 5,000  |
| Sodium chloride    | 5,000  |
| Sodium azide       | 0,500  |
| Bromocresol purple | 0,015  |
| Buffers            | 5,500  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                        | Incubation time: 24 h |
|------------------------------|------------------------|-------------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, colour change to yellow |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                     |                       |

**References:** Hajna (1951) Public Health Lab. 9: 80.

### BAIRD-PARKER AGAR BASE, PH EUR

A selective and differential medium for the isolation and enumeration of *Staphylococcus aureus* according to PH EUR (Agar Medium O).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BPA20500, 5 kg: BPA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **60 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of Sterile Egg Yolk Tellurite Emulsion (EYT80050)**. Mix well before pouring.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: BPA30100, 500 ml: BPA30500</b> |
| Plated media:            | <b>55 mm: BPA50055, 90 mm: BPA50090</b>   |
| Colour of bottled media: | <b>Yellowish, transparent</b>             |
| Colour of plated media:  | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C):           | <b>6,7 – 6,9</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |    |
|------------------|----|
| Casein peptone   | 10 |
| Beef extract     | 5  |
| Yeast extract    | 1  |
| Sodium pyruvate  | 10 |
| Lithium chloride | 5  |
| Glycine          | 12 |
| Agar             | 17 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth                                 | Incubation time: 48 h |
|-----------------------------------|------------------------|--|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, black colonies with double zones |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 12228             | Poor, black colonies without zones     |                       |
| <i>Escherichia coli</i>           | ATCC 25922             | Inhibited                              |                       |

**References:** European Pharmacopoeia ISO 16266

## II. DEHYDRATED CULTURE MEDIA

### BAIRD-PARKER BROTH BASE

A selective and differential medium for the isolation and enumeration of *Staphylococcus aureus*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BBR20500, 5 kg: BBR25000</b> |
| Colour:                | Yellowish                              |
| Appearance:            | Homogeneous hygroscopic powder         |
| pH before autoclaving: | 7,0 (approx.) at 25 °C                 |

**Direction:** Suspend **43 g** in 950 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of Sterile Egg Yolk Tellurite Emulsion (EYT80050)**. Mix well and dispense aseptically into sterile final containers.

#### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: BBR30100, 500 ml: BBR30500</b> |
| Tubed media:             | <b>150 x 15 mm: BBR40010 (10 ml)</b>      |
| Colour of bottled media: | <b>Yellowish, transparent</b>             |
| Colour of tubed media:   | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C):           | <b>6,9 – 7,1</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                  |    |
|------------------|----|
| Peptones         | 16 |
| Sodium pyruvate  | 10 |
| Lithium chloride | 5  |
| Glycine          | 12 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                       | Incubation time: 48 h |
|------------------------------|------------------------|------------------------------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, colour change to black |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                    |                       |

**References:** Baird-Parker (1962) J. Appl. Bact. 25: 12.

### BAT AGAR

A selective medium for the detection of *Alicyclobacillus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BTA20500, 5 kg: BTA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **29 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes. If adjustment of pH is necessary to pH 4 (approx.), cool to 50 °C and add aseptically 1N sulphuric acid (approx: 1,7 ml) to the medium.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

Once acidified with sulphuric acid, the medium should not be reheated.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BTA30100, 500 ml: BTA30500</b> |
| Plated media:  | <b>55 mm: BTA50055, 90 mm: BTA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>5,1 – 5,3</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 2,000  |
| Glucose             | 5,000  |
| Magnesium sulphate  | 0,500  |
| Calcium chloride    | 0,250  |
| Ammonium sulphate   | 0,200  |
| Mixture of minerals | 0,001  |
| Buffers             | 3,000  |
| Agar                | 18,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                            | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|---|------------------------|-----------|-----------------------|
| <i>Alicyclobacillus acidoterrestris</i> | ATCC 49025             | Good      |                       |
| <i>Escherichia coli</i>                 | ATCC 25922             | Inhibited |                       |
| <i>Staphylococcus aureus</i>            | ATCC 29213             | Inhibited |                       |

**References:** First Standard IFU-Method on the Detection of *Alicyclobacillus* in Fruit Juices. April 2003.

### BILE ESCULIN AGAR

A selective and differential medium for the isolation and presumptive identification of enterococci and group D streptococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BEA20500, 5 kg: BEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BEA30100, 500 ml: BEA30500</b> |
| Plated media:  | <b>55 mm: BEA50055, 90 mm: BEA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                      |      |
|----------------------|------|
| Peptones             | 8,5  |
| Bacteriological bile | 20,0 |
| Ferric citrate       | 0,5  |
| Esculin              | 1,0  |
| Agar                 | 15,0 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good, blackening around the colonies |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited                            |                       |

**References:** Swan (1954) J. Clin. Pathol. 7: 160.

### BILE ESCULIN AZIDE AGAR

A selective and differential medium for the isolation and presumptive identification of enterococci and group D streptococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BES20500, 5 kg: BES25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **55 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BES30100, 500 ml: BES30500</b> |
| Plated media:  | <b>55 mm: BES50055, 90 mm: BES50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Tryptone             | 17,00 |
| Peptones             | 3,00  |
| Yeast extract        | 5,00  |
| Bacteriological bile | 10,00 |
| Sodium chloride      | 5,00  |
| Ferric citrate       | 0,50  |
| Sodium azide         | 0,15  |
| Esculin              | 1,00  |
| Agar                 | 13,35 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good, blackening around the colonies |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited                            |                       |

**References:** Swan (1954) J. Clin. Pathol. 7: 160. ISO 7899-2

### BILE ESCULIN AZIDE BROTH

A selective and differential medium for the differentiation of enterococci and Group D streptococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BIB20500, 5 kg: BIB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **43 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BIB30100, 500 ml: BIB30500</b> |
| Tubed media:   | <b>150 x 15 mm: BIB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Peptones             | 25,25 |
| Bacteriological bile | 10,00 |
| Sodium chloride      | 5,00  |
| Sodium citrate       | 1,00  |
| Ferric citrate       | 0,50  |
| Sodium azide         | 0,25  |
| Esculin              | 1,00  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 51299             | Good, colour change to black |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                    |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited                    |                       |

**References:** Isenberg et al. (1970) Appl. Microbiol. 20: 433.

### BILE ESCULIN BROTH

A selective and differential medium for the differentiation of enterococci and Group D streptococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BEB20500, 5 kg: BEB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **43 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BEB30100, 500 ml: BEB30500</b> |
| Tubed media:   | <b>150 x 15 mm: BEB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                      |      |
|----------------------|------|
| Peptones             | 25,5 |
| Bacteriological bile | 10,0 |
| Sodium chloride      | 5,0  |
| Sodium citrate       | 1,0  |
| Ferric citrate       | 0,5  |
| Esculin              | 1,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 51299             | Good, colour change to black |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                    |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited                    |                       |

**References:** Isenberg et al. (1970) Appl. Microbiol. 20: 433.

### BISMUTH SULPHITE AGAR

A strongly selective medium for the isolation of *Salmonella* spp. including *Salmonella typhi*.

### Dehydrated media

|                          |   |
|--------------------------|---|
| Code Number:             | <b>450 g: BSA20450</b>                              |
|                          | <b>packaging: 450 g agar base + 3 l indicator</b>   |
|                          | <b>4,5 kg: BSA24500</b>                             |
|                          | <b>packaging: 4,5 kg agar base + 30 l indicator</b> |
| Appearance of agar base: | <b>Yellowish, homogeneous hygroscopic powder</b>    |
| Appearance of indicator: | <b>Greenish grey suspension</b>                     |
| pH before autoclaving:   | <b>7,2 (approx.) at 25 °C</b>                       |

**Direction:** Suspend **30 g** agar base in 800 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool down and add aseptically **200 ml of Bismuth Sulphite Indicator (BSI81000)**. Mix well before pouring.

### Warning!

- Before use warm up the indicator to room temperature carefully. The crystals precipitated during chilled stor-age must be redissolved completely. Several refrigeration – warm up process do not cause any damage.
- To ensure homogeneity shake well the indicator before use.
- Immediately after its preparation, the medium has optimal selectivity which gradually decreases over time. For this reason it is not recommended to store the ready to use medium more than 4 days at 2–8 °C.

### Prepared media

|                          |  |
|--------------------------|--|
| Bottled media:           | <b>100 ml: BSA30100, 500 ml: BSA30500</b>      |
| Plated media:            | <b>55 mm: BSA50055, 90 mm: BSA50090</b>        |
| Colour of bottled media: | <b>Yellowish, transparent</b>                  |
| Colour of plated media:  | <b>Light green – cream, homogeneous turbid</b> |
| pH (at 25 °C):           | <b>7,1 – 7,3</b>                               |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                            |        |
|----------------------------|--------|
| Peptones                   | 14,700 |
| Glucose                    | 5,000  |
| Ferrous sulphate           | 0,300  |
| Bismuth sulphite indicator | 6,000  |
| Brilliant green            | 0,016  |
| Buffers                    | 5,000  |
| Agar                       | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Salmonella typhi</i>       | ATCC 19430             | Good, black centre of the colonies usually appears |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, black colonies with metallic sheen           |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited, brownish colonies                       |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Inhibited, greenish to colourless colonies         |                       |

**References:** Wilson and Blair (1972) J. Hyg. Camb. 26: 374.

### BLOOD AGAR BASE

A multi-purpose, non-selective medium for the cultivation of non-fastidious and fastidious micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BAN20500, 5 kg: BAN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

### Prepared media

|                         |   |
|-------------------------|---|
| Bottled media:          | <b>100 ml: BAN30100, 500 ml: BAN30500</b> |
| Plated media:           | <b>55 mm: BAN50055, 90 mm: BAN50090</b>   |
| Colour of bottled agar: | <b>Yellowish</b>                          |
| Colour of plated agar:  | <b>Ruby red</b>                           |
| pH (at 25 °C):          | <b>7,2 – 7,4</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, liver and other extracts) | 22 |
| Sodium chloride   | 5  |
| Agar  | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|---------------------------------|------------------------|--|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good, alpha haemolysis<br>(under micro-aerobic conditions) |                       |
| <i>Streptococcus pyogenes</i>   | ATCC 19615             | Good, beta haemolysis<br>(under micro-aerobic conditions)  |                       |
| <i>Enterococcus faecalis</i>    | ATCC 29212             | Good, without haemolysis                                   |                       |

References: APHA (1972) Comp. of Meth. for the Micr. Examin. of Foods. 3<sup>rd</sup> ed.

### BLOOD AGAR BASE No.2

A modified blood agar possessing enhanced nutritional properties for the cultivation of fastidious and other micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BAL20500, 5 kg: BAL25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

#### Prepared media

|                         |   |
|-------------------------|---|
| Bottled media:          | <b>100 ml: BAL30100, 500 ml: BAL30500</b> |
| Plated media:           | <b>55 mm: BAL50055, 90 mm: BAL50090</b>   |
| Colour of bottled agar: | <b>Yellowish</b>                          |
| Colour of plated agar:  | <b>Ruby red</b>                           |
| pH (at 25 °C):          | <b>7,4 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, liver and other extracts) | 24 |
| Sodium chloride   | 5  |
| Agar  | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|---------------------------------|------------------------|--|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good, alpha haemolysis<br>(under micro-aerobic conditions) |                       |
| <i>Streptococcus pyogenes</i>   | ATCC 19615             | Good, beta haemolysis<br>(under micro-aerobic conditions)  |                       |
| <i>Enterococcus faecalis</i>    | ATCC 29212             | Good, without haemolysis                                   |                       |

References: FDA Bacteriological Analytical Manual (1992) 7<sup>th</sup> ed.

### BLUE AGAR

A differential medium for the differentiation of lactose-positive micro-organisms from lactose-negative ones.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BLU20500, 5 kg: BLU25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **48 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BLU30100, 500 ml: BLU30500</b> |
| Plated media:  | <b>55 mm: BLU50055, 90 mm: BLU50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 20,000 |
| Lactose          | 10,000 |
| Sodium chloride  | 5,000  |
| Bromothymol blue | 0,045  |
| Agar             | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C   | Growth                      | Incubation time: 24 h |
|-------------------------------|--------------------------|-----------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922 (L + control) | Good, yellow colonies       |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028 (L – control) | Good, bluish green colonies |                       |

### BLUE BROTH

A differential medium for the differentiation of lactose-positive micro-organisms from lactose-negative ones.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BLB20500, 5 kg: BLB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BLB30100, 500 ml: BLB30500</b> |
| Tubed media:   | <b>150 x 15 mm: BLB40010 (10 ml)</b>      |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 10,00 |
| Lactose            | 20,00 |
| Sodium chloride    | 4,00  |
| Potassium sulphate | 2,00  |
| Ammonium sulphate  | 1,00  |
| Magnesium sulphate | 0,50  |
| Bromothymol blue   | 0,04  |
| Buffers            | 0,50  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|--------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>  | ATCC 25922             | Positive: Colour change to yellow |                       |
| <i>Proteus mirabilis</i> | ATCC 29906             | Negative: Colour change to blue   |                       |

### BOLTON BROTH BASE

A selective medium for the selective enrichment of *Campylobacter* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BOB20500, 5 kg: BOB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **14 g** in 470 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Selective Supplement, Bolton (CBS80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: BOB30100, 500 ml: BOB30500</b> |
| Tubed media:             | <b>150 x 15 mm: BOB40010 (10 ml)</b>      |
| Colour of bottled media: | <b>Yellowish</b>                          |
| Colour of tubed media:   | <b>Dark red</b>                           |
| pH (at 25 °C):           | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                       |       |
|-----------------------|-------|
| Peptones              | 21,00 |
| Sodium chloride       | 5,00  |
| Sodium metabisulphite | 0,50  |
| Sodium pyruvate       | 0,50  |
| α-Ketoglutaric acid   | 1,00  |
| Haemin                | 0,01  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C.

### Quality Control:

| Test strains                | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|-----------------------------|------------------------|-----------|-----------------------|
| <i>Campylobacter jejuni</i> | ATCC 33291             | Good      |                       |
| <i>Escherichia coli</i>     | ATCC 25922             | Inhibited |                       |

**References:** FDA (1988) Bacteriological Analytical Manual, 8<sup>th</sup> ed.

### BRAIN HEART INFUSION AGAR

A highly nutritious medium for the cultivation of fastidious micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BHA20500, 5 kg: BHA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

**Direction for Vancomycin Screen Agar:** Suspend **25 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Vancomycin (3 mg) Supplement (VSS80004-03)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Prepared media

|                                   |   |
|-----------------------------------|---|
| Bottled media:                    | <b>100 ml: BHA30100, 500 ml: BHA30500</b>     |
| Plated Brain Heart Infusion Agar: | <b>55 mm: BHA50055, 90 mm: BHA50090</b>       |
| Plated Vancomycin Screen Agar:    | <b>55 mm: BHA50055-01, 90 mm: BHA50090-01</b> |
| Colour:                           | <b>Yellowish</b>                              |
| pH (25 °C):                       | <b>7,3 – 7,5</b>                              |

**Direction:** If necessary, supplement may be added to the melted bottled media according to the direction of the dehydrated media. Dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|   |      |
|---|------|
| Nutrient substrate (brain + heart infusion, peptones) | 27,5 |
| Glucose   | 2,0  |
| Sodium chloride                                       | 5,0  |
| Buffers   | 2,5  |
| Agar  | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains BHA                | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|---------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good (under micro-aerobic conditions) |                       |

| Test strains BHA-01          | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 51299             | Good      |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

### BRAIN HEART INFUSION BROTH

A highly nutritious medium for the cultivation of fastidious micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BHI20500, 5 kg: BHI25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BHI30100, 500 ml: BHI30500</b> |
| Tubed media:   | <b>150 x 15 mm: BHI40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.



## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|   |      |
|---|------|
| Nutrient substrate brain + heart infusion, peptones | 27,5 |
| Glucose   | 2,0  |
| Sodium chloride                                     | 5,0  |
| Buffers   | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good   |                       |

**References:** Rosenow (1919) J. Dental Research 205.

### BRILLIANT GREEN (BPLS) AGAR, PH EUR

A selective and differential medium for the isolation of *Salmonella* spp. (other than *S. typhi*) according to PH EUR (Agar Medium L – Brilliant Green Phenol Red Lac-tose Sucrose Agar).

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: BPE20500, 5 kg: BPE25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **58 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly and pour into Petri-dishes immediately!

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BPE30100, 500 ml: BPE30500</b> |
| Plated media:  | <b>55 mm: BPE50055, 90 mm: BPE50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (25 °C):    | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |         |
|---------------------|---------|
| Peptones            | 10,0000 |
| Yeast extract       | 3,0000  |
| Lactose monohydrate | 10,0000 |
| Sucrose             | 10,0000 |
| Sodium chloride     | 5,0000  |
| Phenol red          | 0,0800  |
| Brilliant green     | 0,0125  |
| Agar                | 20,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, red colonies                                 |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, greenish yellow colonies      |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Partially inhibited, red colonies without swarming |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited  |                       |

**References:** European Pharmacopoeia

### BRILLIANT GREEN AGAR BASE, HUMAN

A selective and differentiation medium for the isolation of *Salmonella* spp. (including *S. typhi*) from clinical specimens.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BGH20500, 5 kg: BGH25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **21,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) Brilliant Green Solution, Sterile (BGS80030-DC)**. Mix well before pouring.

#### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: BGH30100, 500 ml: BGH30500</b> |
| Plated media:            | <b>55 mm: BGH50055, 90 mm: BGH50090</b>   |
| Colour of bottled media: | <b>Pink</b>                               |
| Colour of tubed media:   | <b>Bluish</b>                             |
| pH (25 °C):              | <b>7,2 – 7,4</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|              |       |
|--------------|-------|
| Peptones     | 16,50 |
| Lactose      | 10,00 |
| Sucrose      | 1,00  |
| Glucose      | 0,50  |
| Acid fuchsin | 0,08  |
| Agar         | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth   | Incubation time: 48 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Salmonella typhi</i>      | ATCC 19430             | Good, colourless colonies                                  |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Slightly inhibited, red colonies                           |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Partially inhibited, colourless colonies with-out swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited  |                       |

## II. DEHYDRATED CULTURE MEDIA

### BRILLIANT GREEN AGAR BASE, MODIFIED

A selective and differentiation medium for the isolation of *Salmonella* spp. other than *S. typhi*.

#### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: BGM20500, 5 kg: BGM25000 |
| Colour:      | Beige                           |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 6,9 (approx.) at 25 °C          |

**Direction:** Suspend 26,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool quickly to 50 °C and add aseptically the contents of one vial of Sulphamandelate Selective Supplement (SUS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: BGM30100, 500 ml: BGM30500 |
| Plated media:  | 55 mm: BGM50055, 90 mm: BGM50090   |
| Colour:        | Brown                              |
| pH (25 °C):    | 6,8 – 7,0                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |         |
|-----------------|---------|
| Peptones        | 17,000  |
| Lactose         | 10,000  |
| Sucrose         | 10,000  |
| Phenol red      | 0,0800  |
| Brilliant green | 0,0047  |
| Buffers         | 1,6000  |
| Agar            | 14,4000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 48 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, red colonies                                 |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, yellow colonies               |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Partially inhibited, red colonies without swarming |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited  |                       |

**References:** Edell and Kampelmacher (1968) Bull. Wld. Hlth. Org. 39: 487.

### BRILLIANT GREEN BILE (2%) BROTH

A selective and differential medium for the detection of coliforms.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: BBB20500, 5 kg: BBB25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 40 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: BBB30100, 500 ml: BBB30500 |
| Tubed media:   | 150 x 15 mm: BBB40010 (10 ml)      |
| Colour:        | Green                              |
| pH (at 25 °C): | 7,3 – 7,5                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                      |         |
|----------------------|---------|
| Peptones             | 10,0000 |
| Bacteriological bile | 20,0000 |
| Lactose              | 10,0000 |
| Brilliant green      | 0,0133  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good with gas production, colour change to yellow |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good with gas production without colour change    |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited   |                       |

**References:** APHA (1986) Standard Methods for the Examination of Water and Wastewater, 15<sup>th</sup> ed.

### BROLAC AGAR

A differential medium for the differentiation of lactose-positive micro-organisms from lactose-negative ones.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: BRO20500, 5 kg: BRO25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 40 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: BRO30100, 500 ml: BRO30500 |
| Plated media:  | 55 mm: BRO50055, 90 mm: BRO50090   |
| Colour:        | Green                              |
| pH (25 °C):    | 6,9 – 7,1                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                  |       |
|------------------|-------|
| Peptones         | 7,00  |
| Lactose          | 15,00 |
| Sodium chloride  | 5,00  |
| Bromothymol blue | 0,04  |
| Agar             | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C   | Growth                      | Incubation time: 24 h |
|-------------------------------|--------------------------|-----------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922 (L + control) | Good, yellow colonies       |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028 (L – control) | Good, bluish green colonies |                       |

### BROMOCRESOL PURPLE AZIDE BROTH BASE

A selective medium for the confirmation of the presence of enterococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BCB20500, 5 kg: BCB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BCB30100, 500 ml: BCB30500</b> |
| Tubed media:   | <b>150 x 15 mm: BCB40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 20,000 |
| Glucose            | 5,000  |
| Sodium chloride    | 5,000  |
| Sodium azide       | 0,500  |
| Bromocresol purple | 0,032  |
| Buffers            | 5,500  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                        | Incubation time: 24 h |
|------------------------------|------------------------|-------------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, colour change to yellow |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                     |                       |

**References:** Hajna and Perry (1943) Am. J. Publ. Health. 3: 550.

### BROMOCRESOL PURPLE GLUCOSE AGAR

A glucose containing differential medium for the differentiation and enumeration of Enterobacteriaceae.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BPD20500, 5 kg: BPD25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BPD30100, 500 ml: BPD30500</b> |
| Plated media:  | <b>55 mm: BPD50055, 90 mm: BPD50090</b>   |
| Colour:        | <b>Purple</b>                             |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Tryptone           | 10,000 |
| Yeast extract      | 1,500  |
| Glucose            | 10,000 |
| Sodium chloride    | 5,000  |
| Bromocresol purple | 0,015  |
| Agar               | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|-------------------------|------------------------|-----------------------|-----------------------|
| <i>Escherichia coli</i> | ATCC 25922             | Good, yellow colonies |                       |

**References:** ISO 21528-2

### BROMOCRESOL PURPLE LACTOSE AGAR

A lactose containing differential medium for the isolation of coliforms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BPL20500, 5 kg: BPL25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BPL30100, 500 ml: BPL30500</b> |
| Plated media:  | <b>55 mm: BPL50055, 90 mm: BPL50090</b>   |
| Colour:        | <b>Purple</b>                             |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 11,500 |
| Lactose            | 10,000 |
| Sodium chloride    | 5,000  |
| Bromocresol purple | 0,015  |
| Agar               | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, yellow colonies |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, purple colonies |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

## BRUCELLA AGAR BASE

A selective medium for the isolation of *Brucella* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BAB20500, 5 kg: BAB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **22,5 g** in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add aseptically 4 ml of 1:1 mixture of methanol and sterile distilled water to **one vial of Brucella Selective Supplement (BAS80004)** to form suspension. Incubate for 15 minutes at 37 °C. Shake well and add immediately to the agar base together with **35 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) horse serum**. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BAB30100, 500 ml: BAB30500</b> |
| Plated media:  | <b>55 mm: BAB50055, 90 mm: BAB50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,4 – 7,6</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 15 |
| Glucose         | 10 |
| Sodium chloride | 5  |
| Agar            | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Brucella abortus</i> | ATCC 4315              | Good   |                       |

**References:** Farell and Robinson (1972) J. Appl. Bact. 35: 625.

## BRUCELLA AGAR WITH HEMIN + VITAMIN K

A non-selective medium for the cultivation and isolation of anaerobe micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BHK20500, 5 kg: BHK25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

### Prepared media

|                         |   |
|-------------------------|---|
| Bottled media:          | <b>100 ml: BHK30100, 500 ml: BHK30500</b> |
| Plated media:           | <b>55 mm: BHK50055, 90 mm: BHK50090</b>   |
| Colour of bottled agar: | <b>Yellowish</b>                          |
| Colour of plated agar:  | <b>Ruby red</b>                           |
| pH (25 °C):             | <b>7,4 – 7,6</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                   |       |
|-------------------|-------|
| Peptones          | 22,00 |
| L-Cysteine        | 0,50  |
| Glucose           | 1,00  |
| Sodium chloride   | 5,00  |
| Sodium bisulphite | 0,10  |
| Hemin             | 0,01  |
| Vitamin K         | 0,01  |
| Agar              | 14,40 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions) |                       |
| <i>Clostridium peفرingens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Zennette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed., ASM, Washington, D.C.

## BRUCELLA BROTH

A non-selective medium for the cultivation of *Brucella* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BRB20500, 5 kg: BRB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **28 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BRB30100, 500 ml: BRB30500</b> |
| Tubed media:   | <b>150 x 15 mm: BRB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 22,0 |
| Glucose         | 1,0  |
| Sodium chloride | 5,0  |
| Sodium sulphite | 0,1  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Brucella abortus</i> | ATCC 4315              | Good   |                       |

**References:** APHA (1976) Standard Methods for the Examination of Dairy Product, 14<sup>th</sup> ed.

## BRYANT-BURKEY BROTH

A selective medium for the cultivation of lactate fermenting *Clostridia* spp.

### Dehydrated media

|                           |   |
|---------------------------|---|
| Code Number:              | <b>500 g: BBA20500-M</b>                              |
|                           | <b>packaging: 300 g broth base + 200 g supplement</b> |
|                           | <b>5 kg: BBA25000</b>                                 |
|                           | <b>packaging: 3 kg broth base + 2 kg supplement</b>   |
| Appearance of agar base:  | <b>Yellowish homogeneous hygroscopic powder</b>       |
| Appearance of supplement: | <b>White powder</b>                                   |
| pH after autoclaving:     | <b>5,9 (approx.) at 25 °C</b>                         |

**Direction:** Suspend **19 g of Bryant-Burkey Supplement (BSU80200)** in one litre of distilled water and sterilise by autoclaving at 121 °C for 15 minutes. Cool to room temperature and filter the precipitate. Suspend **28 g of Bryant-Burkey Broth Base (BBA20500)** in the filtrate and fill up the solution with distilled water to one litre. Adjust the pH to 6,0 ± 0,1. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Warning!

As the best result is expected in case of freshly prepared lactate, carry out the two steps above successively.

### Prepared media

|                |                                       |
|----------------|---------------------------------------|
| Tubed media:   | <b>150 x 15 mm: BBA40010 (10 ml)</b>  |
| Colour:        | <b>Yellowish with red colour ring</b> |
| pH: (at 25 °C) | <b>5,8 – 6,0</b>                      |

**Direction:** Media in tubes are ready to use.

### Warning!

The medium may be used until approximately 30% of the medium (top layer) has been oxidized, as indicated by a pink colour of the resazurin near the surface. If oxidation has proceeded further, the broth may be reheated once in steam or boiling water, cooled and used.

### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                |         |
|----------------|---------|
| Peptones       | 27,5000 |
| Sodium lactate | 5,0000  |
| Sodium acetate | 5,0000  |
| L-Cysteine     | 0,5000  |
| Resazurin      | 0,0025  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C, but the best is to use it freshly.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 72 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good with gas production (under anaerobic conditions) |                       |

**References:** Bryant and Burkey (1953) J. Dairy Science 23: 30.

## CAMPYLOBACTER AGAR BASE

A selective medium for the isolation of *Campylobacter* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CAA20500, 5 kg: CAA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction for Campylobacter Agar:** Suspend **19 g** in 470 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Growth Supplement (CGS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for selective Campylobacter Agars:** Dissolve the contents of **one vial of Campylobacter Selective Supplement, Blaser-Wang (CBW80004)** or **Campylobacter Selective Supplement, Skirrow (CSS80004)** with 4 ml of sterile distilled water or dissolve the content of **one vial of Campylobacter Selective Supplement, Preston (CPS80004)** with 4 ml of 1:1 mixture of acetone and sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

### Prepared media

|   |   |
|---|---|
| Bottled media:                                    | <b>100 ml: CAA30100, 500 ml: CAA30500</b>     |
| Plated Campylobacter Selective Agar, Blaser-Wang: | <b>55 mm: CAA50055-BW, 90 mm: CAA50090-BW</b> |
| Plated Campylobacter Selective Agar, Skirrow:     | <b>55 mm: CAA50055-SR, 90 mm: CAA50090-SR</b> |
| Plated Campylobacter Selective Agar, Preston:     | <b>55 mm: CAA50055-PR, 90 mm: CAA50090-PR</b> |
| Colour of bottled agar:                           | <b>Yellowish</b>                              |
| Colour of plated agars:                           | <b>Red</b>                                    |
| pH (25 °C):                                       | <b>7,4 – 7,6</b>                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 20 |
| Sodium chloride | 5  |
| Agar            | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|-----------------------------|------------------------|-----------|-----------------------|
| <i>Campylobacter jejuni</i> | ATCC 33291             | Good      |                       |
| <i>Escherichia coli</i>     | ATCC 25922             | Inhibited |                       |

**References:** Bolton and Robertson (1982) J. Clin. Pathol. 35: 462.

### CAMPYLOBACTER AGAR BASE, KARMALI

A selective blood-free medium for the isolation of *Campylobacter* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CAK20500, 5 kg: CAK25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **23 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Campylobacter Selective Supplement, Karmali (CPK80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CAK30100, 500 ml: CAK30500</b> |
| Plated media:  | <b>55 mm: CAK50055, 90 mm: CAK50090</b>   |
| Colour:        | <b>Black</b>                              |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                          |        |
|--------------------------|--------|
| Columbia Blood Agar Base | 42,000 |
| Charcoal                 | 4,000  |
| Hemin                    | 0,032  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|-----------------------------|------------------------|-----------|-----------------------|
| <i>Campylobacter jejuni</i> | ATCC 33291             | Good      |                       |
| <i>Escherichia coli</i>     | ATCC 25922             | Inhibited |                       |

**References:** Karmali et al. (1986) J. Clin. Microbiol. 23: 456.

### CAMPYLOBACTER BLOOD-FREE (CCDA) AGAR BASE

A selective blood-free medium for the isolation of *Campylobacter* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CCA20500, 5 kg: CCA25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **24 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Campylobacter Selective Supplement, CCDA (CCS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CCA30100, 500 ml: CCA30500</b> |
| Plated media:  | <b>55 mm: CCA50055, 90 mm: CCA50090</b>   |
| Colour:        | <b>Black</b>                              |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Peptones            | 24,50 |
| Sodium chloride     | 5,00  |
| Sodium deoxycholate | 1,00  |
| Ferrous sulphate    | 0,25  |
| Sodium pyruvate     | 0,25  |
| Charcoal            | 4,00  |
| Agar                | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|-----------------------------|------------------------|-----------|-----------------------|
| <i>Campylobacter jejuni</i> | ATCC 33291             | Good      |                       |
| <i>Escherichia coli</i>     | ATCC 25922             | Inhibited |                       |

**References:** Bolton et al. (1984) J. Clin. Microbiol. 19: 169.

### CASEIN PEPTONE LECITHIN POLYSORBATE BROTH BASE, USP

An inactivating solution for diluting samples when determining microbial count.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CLP20500, 5 kg: CLP25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in 960 ml of distilled water. Add **40 ml of TWEEN 80 Supplement (TWS80500)**. Mix well and keep the suspension at about 50 °C until the lecithin dissolves completely (20–30 min). The ready broth is yellowish and slightly turbid, but exempt from any precipitate. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CLP30100, 500 ml: CLP30500</b> |
| Tubed media:   | <b>150 x 15 mm: CLP40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                |    |
|----------------|----|
| Casein peptone | 20 |
| Lecithin       | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** United States Pharmacopoeia

### CATC AGAR BASE

A selective and differential medium for the detection of enterococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CAT20500, 5 kg: CAT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **28,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of TTC Solution, Sterile (TTC80030)**. Mix well before pouring.

### Warning!

The medium is heat sensitive. No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CAT30100, 500 ml: CAT30500</b> |
| Plated media:  | <b>55 mm: CAT50055, 90 mm: CAT50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |       |
|------------------|-------|
| Tryptone         | 17,00 |
| Peptones         | 20,6  |
| Sodium citrate   | 15,0  |
| Sodium carbonate | 2,0   |
| Sodium azide     | 0,4   |
| TWEEN 80         | 1,0   |
| Buffers          | 5,0   |
| Agar             | 13,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                     | Incubation time: 48 h |
|------------------------------|------------------------|----------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, ferruginous colonies |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                  |                       |

**References:** Burkwall and Hartman (1964) Appl. Microbiol. 12: 18.

### CETRIMIDE (CN) AGAR BASE

A selective medium for isolation and identification of *Pseudomonas aeruginosa*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CCN20500, 5 kg: CCN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water. Add **10 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CCN30100, 500 ml: CCN30500</b> |
| Plated media:  | <b>55 mm: CCN50055, 90 mm: CCN50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 25,400 |
| Potassium sulphate | 10,000 |
| Magnesium chloride | 1,400  |
| Cetrimide          | 0,200  |
| Nalidixic acid     | 0,015  |
| Agar               | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good growth, fluorescent green colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                               |                       |

**References:** Lowbury and Collins (1955) J. Clin. Pathol. 8: 47.

### CETRIMIDE (CN) AGAR BASE No.2

A selective medium for isolation and identification of *Pseudomonas aeruginosa*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CCT20500, 5 kg: CCT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction for Cetrimide (CN) Agar No.2:** Suspend **25 g** in 500 ml of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of **one vial of Pseudomonas Selective Supplement, CN (PCN80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Cetrimide (CFC) Agar No.2:** Suspend **25 g** in 500 ml of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of **one vial of Pseudomonas Selective Supplement, CFC (CFC80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

**Direction for Cetrimide (PP) Agar No.2:** Suspend **25 g** in 500 ml of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of **one vial of Pseudomonas Selective Supplement, PP (PPP80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                              |   |
|------------------------------|---|
| Bottled media:               | <b>100 ml: CCT30100, 500 ml: CCT30500</b>     |
| Plated Cetrimide (CN) agar:  | <b>55 mm: CCT50055-01, 90 mm: CCT50090-01</b> |
| Plated Cetrimide (CFC) agar: | <b>55 mm: CCT50055-02, 90 mm: CCT50090-02</b> |
| Plated Cetrimide (PP) agar:  | <b>55 mm: CCT50055-03, 90 mm: CCT50090-03</b> |
| Colour:                      | <b>Yellowish</b>                              |
| pH (25 °C):                  | <b>7,0 – 7,2</b>                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 25,0 |
| Potassium sulphate | 10,0 |
| Magnesium chloride | 1,4  |
| Agar               | 12,6 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good growth, fluorescent green colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                               |                       |

**References:** Lowbury and Collins (1955) J. Clin. Pathol. 8: 47.  
ISO 16266; ISO 13720; ISO 11059

### CETRIMIDE AGAR BASE, PH EUR - USP

A selective medium for isolation and identification of *Pseudomonas aeruginosa* according to PH EUR (Agar Medium N – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CAB20500, 5 kg: CAB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water. Add **10 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CAB30100, 500 ml: CAB30500</b> |
| Plated media:  | <b>55 mm: CAB50055, 90 mm: CAB50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |      |
|--------------------|------|
| Gelatine peptone   | 20,0 |
| Potassium sulphate | 10,0 |
| Magnesium chloride | 1,4  |
| Cetrimide          | 0,3  |
| Agar               | 13,3 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good growth, fluorescent green colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                               |                       |

**References:** European Pharmacopoeia

### CHARCOAL AGAR BASE

A selective medium for the cultivation and isolation of *Bordetella pertussis* and *Haemophilus influenzae*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CHA20500, 5 kg: CHA25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction for Bordetella agar:** Suspend 26 g in 450 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated blood** and the content of one vial of Bordetella Selective Supplement (BSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Haemophilus agar:** Suspend **26 g** in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **35 ml of sterile defibrinated blood** and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the content of **one vial of Growth Factor Mixture Hydration Fluid** with 5 ml of sterile distilled water and add aseptically to the **Growth Factor Mixture (GFM80005)**. Mix well and add aseptically to the medium. Mix well before pouring.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: CHA30100, 500 ml: CHA30500</b> |
| Plated Bordetella Agar:  | <b>90 mm: CHA50090-B0</b>                 |
| Plated Haemophilus Agar: | <b>90 mm: CHA50090-HA</b>                 |
| Colour:                  | <b>Black</b>                              |
| pH (25 °C):              | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,000 |
| Starch soluble  | 10,000 |
| Sodium chloride | 5,000  |
| Charcoal        | 4,000  |
| Nicotinic acid  | 0,001  |
| Agar            | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.



## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains BO Agar         | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Bordetella pertussis</i>  | ATCC 8467              | Good      |                       |
| <i>Klebsiella pneumoniae</i> | ATCC 13883             | Inhibited |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited |                       |

| Test strains HA Agar          | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Haemophilus influenzae</i> | ATCC 49247             | Good   |                       |

**References:** Proom (1955) J. Gen. Microbiol. 12: 63.

### CHINA BLUE LACTOSE AGAR

A differential medium for the differentiation of lactose-positive micro-organisms from lactose-negative ones and for enumeration of bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CBA20500, 5 kg: CBA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CBA30100, 500 ml: CBA30500</b> |
| Plated media:  | <b>55 mm: CBA50055, 90 mm: CBA50090</b>   |
| Colour:        | <b>Blue</b>                               |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 8,600  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| China blue      | 0,375  |
| Agar            | 12,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C   | Growth                    | Incubation time: 24 h |
|-------------------------------|--------------------------|---------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922 (L + control) | Good, blue colonies       |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028 (L – control) | Good, colourless colonies |                       |

**References:** Brandt and Sobeck-Skal (1963) Milchwiss. Ber. 13: 1.

### CHLORAMPHENICOL GLUCOSE AGAR

A selective medium for the enumeration of yeasts and moulds.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CGA20500, 5 kg: CGA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CGA30100, 500 ml: CGA30500</b> |
| Plated media:  | <b>55 mm: CGA50055, 90 mm: CGA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,5 – 6,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Yeast extract   | 5,0  |
| Glucose         | 20,0 |
| Chloramphenicol | 0,1  |
| Agar            | 14,9 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** ISO 7954

### CHOCOLATE AGAR BASE

A highly nutritious medium for the isolation and cultivation of fastidious micro-organisms especially *Neisseria* and *Haemophilus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CHO20500, 5 kg: CHO25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction for Chocolate Agar:** Suspend **18 g** in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **35 ml of sterile defibrinated blood** and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dis-solve the contents of **one vial of Growth Factor Mixture Hydration Fluid** with 5 ml of sterile distilled water and add aseptically to the **Growth Factor Mixture (GFM80005)**. Mix well and add aseptically to the medium. Mix well before pouring.

**Direction for Chocolate Agar + Bacitracin:** Dissolve the contents of **one vial of Bacitracin (150 mg) Supplement (BAC80004)** with 4 ml of sterile distilled water and add aseptically to the agar base at 50 °C. Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

**Direction for Chocolate Agar + Vancomycin:** Dissolve the contents of one vial of Vancomycin (13 mg) Supplement (VSS80004-13) with 4 ml of sterile distilled water and add aseptically to the agar base at 50 °C. Mix well before pouring.

### Prepared media

|                                     |   |
|-------------------------------------|---|
| Bottled media:                      | <b>100 ml: CH030100, 500 ml: CH030500</b>     |
| Plated Chocolate Agar:              | <b>55 mm: CH050055-02, 90 mm: CH050090-02</b> |
| Plated Chocolate Agar + Bacitracin: | <b>55 mm: CH050055-03, 90 mm: CH050090-03</b> |
| Plated Chocolate Agar + Vancomycin: | <b>55 mm: CH050055-04, 90 mm: CH050090-04</b> |
| Colour of bottled agar:             | <b>Yellowish</b>                              |
| Colour of plated agars:             | <b>Chocolate brown</b>                        |
| pH (at 25 °C):                      | <b>7,1 – 7,3</b>                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 16 |
| Sodium chloride                         | 5  |
| Buffers                                 | 1  |
| Agar                                    | 14 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Haemophilus influenzae</i> | ATCC 49766             | Good                                   |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited (in case of selective media) |                       |

**References:** Carpenter and Morton (1947) Proc. N. Y. State Assoc. Public Health Labs. 27: 58.

## ChromoBio® CANDIDA

A selective and differential chromogenic medium for isolation and differentiation of major clinical-significant *Candida* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CAN20500, 5 kg: CAN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **48 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CAN30100, 500 ml: CAN30500</b> |
| Plated media:  | <b>55 mm: CAN50055, 90 mm: CAN50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,0 – 6,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                              |      |
|------------------------------|------|
| Peptones                     | 10,0 |
| Glucose                      | 20,0 |
| Chromogenic substrate        | 1,5  |
| Chloramphenicol + gentamicin | 0,5  |
| Agar                         | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains              | Incubation temp: 37 °C | Growth               | Incubation time: 48 h |
|---------------------------|------------------------|----------------------|-----------------------|
| <i>Candida albicans</i>   | ATCC 10231             | Good, green colonies |                       |
| <i>Candida krusei</i>     | ATCC 14243             | Good, pink colonies  |                       |
| <i>Candida tropicalis</i> | ATCC 1369              | Good, blue colonies  |                       |
| <i>Escherichia coli</i>   | ATCC 25922             | Inhibited            |                       |

## ChromoBio® CERESUS BASE

A selective and differential chromogenic medium for the detection of *Bacillus cereus*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CER20500, 5 kg: CER25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **16,5 g** in 450 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

In the meantime add 50 ml of sterile distilled water to one bottle of Cereus Supplement (CES80050). Mix well and soak the suspension about one hour – repeating the mixing a few times – until the lecithin dissolves completely. The ready supplement is homogeneous turbid, but exempt from any precipitate.

Cool the agar base to 50 °C and add aseptically the supplement. Mix well before pouring. To ensure the complete homogeneity repeat the mixing a few times during the pouring again.

### Prepared media

|                         |   |
|-------------------------|---|
| Bottled media:          | <b>100 ml: CER30100, 500 ml: CER30500</b> |
| Plated media:           | <b>55 mm: CER50055, 90 mm: CER50090</b>   |
| Colour of bottled agar: | <b>Yellowish</b>                          |
| Colour of plated agar:  | <b>Yellowish, homogeneous turbid</b>      |
| pH (25 °C):             | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                       |    |
|-----------------------|----|
| Peptones              | 18 |
| Chromogenic substrate | 2  |
| Agar                  | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|--------------------------|------------------------|---|-----------------------|
| <i>Bacillus cereus</i>   | ATCC 11778             | Good, blue colonies with opaque halo            |                       |
| <i>Bacillus subtilis</i> | ATCC 6633              | Partially inhibited, blue colonies without halo |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Inhibited                                       |                       |

### ChromoBio® COLIFORM

A selective and differential chromogenic medium for the simultaneous detection of coliforms and *Escherichia coli* according to ISO 9308-1: 2014.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: COF20500, 5 kg: COF25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise at 100 °C (in water bath or flowing steam) for 30 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: COF30100, 500 ml: COF30500</b> |
| Plated media:  | <b>55 mm: COF50055, 90 mm: COF50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|  |       |
|--|-------|
| Casein peptone                                 | 1,00  |
| Yeast extract                                  | 2,00  |
| Tryptophan                                     | 1,00  |
| Sorbitol                                       | 1,00  |
| Sodium chloride                                | 5,00  |
| Sodium pyruvate                                | 1,00  |
| 6-chloro-3-indolyl-β-D-galactopyranoside       | 0,20  |
| 5-bromo-4-chloro-3-indolyl-β-D-glucuronide     | 0,10  |
| Isopropyl-β-D-1-thiogalactopyranoside          | 0,10  |
| Tergitol 7                                     | 0,15  |
| Sodium phosphate dibasic                       | 2,70  |
| Sodium phosphate monobasic x 2H <sub>2</sub> O | 2,20  |
| Agar   | 13,55 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                    | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, blue colonies       |                       |
| <i>Citrobacter freundii</i>   | ATCC 8090              | Good, red colonies        |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                 |                       |

**References:** Manafi and Kneifel (1989) Zentralbl. Hyg. 189: 225.  
ISO 9308-1: 2014

### ChromoBio® ENTEROCOCCUS AGAR

A selective and differential chromogenic medium for the enumeration of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CEA20500, 5 kg: CEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CEA30100, 500 ml: CEA30500</b> |
| Plated media:  | <b>55 mm: CEA50055, 90 mm: CEA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                       |    |
|-----------------------|----|
| Peptones              | 20 |
| Chromogenic substrate | 3  |
| TWEEN 80              | 1  |
| Buffers               | 5  |
| Agar                  | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth              | Incubation time: 48 h |
|-------------------------------|------------------------|---------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good, blue colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited           |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited           |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited           |                       |

### ChromoBio® ENTEROCOCCUS BROTH

A selective and differential chromogenic medium for the selective enrichment of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CEB20500, 5 kg: CEB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CEB30100, 500 ml: CEB30500</b> |
| Tubed media:   | <b>150 x 15 mm: CEB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                       |      |
|-----------------------|------|
| Peptones              | 10,0 |
| Sodium chloride       | 6,4  |
| Sodium azide          | 0,6  |
| Chromogenic substrate | 3,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth              | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good, blue colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited           |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited           |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited           |                       |

## ChromoBio® LISTERIA

A selective and differential chromogenic medium for the cultivation, differentiation and isolation of *Listeria monocytogenes* according to ISO 11290-1.

### Dehydrated media

|                           |  |
|---------------------------|--|
| Code Number:              | <b>500 g: AL020500</b>                                     |
|                           | <b>packaging: 500 g agar base + 14 x 100 ml supplement</b> |
|                           | <b>5 kg: AL025000</b>                                      |
|                           | <b>packaging: 5 kg agar base + 140 x 100 ml supplement</b> |
| Appearance of agar base:  | <b>Yellowish homogeneous hygroscopic powder</b>            |
| Appearance of supplement: | <b>Yellowish solution</b>                                  |
| pH before autoclaving:    | <b>7,2 (approx.) at 25 °C</b>                              |

**Direction:** Suspend **35 g** agar base in 400 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically **100 ml of Listeria Supplement (LDS80100)**. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: AL030100, 500 ml: AL030500</b> |
| Plated media:            | <b>55 mm: AL050055, 90 mm: AL050090</b>   |
| Colour of bottled media: | <b>Yellowish</b>                          |
| Colour of plated media:  | <b>Yellowish, homogeneous turbid</b>      |
| pH (25 °C):              | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA OF ONE LITRE OF COMPLETE MEDIUM

|                                   |          |
|-----------------------------------|----------|
| Meat peptone                      | 18,00 g  |
| Casein peptone                    | 6,00 g   |
| Yeast extract                     | 10,00 g  |
| Glucose                           | 2,00 g   |
| Lithium chloride                  | 10,00 g  |
| Sodium chloride                   | 5,00 g   |
| Sodium pyruvate                   | 2,00 g   |
| Magnesium glycerophosphate        | 1,00 g   |
| Magnesium sulphate                | 0,50 g   |
| L- $\alpha$ -Phosphatidylinositol | 2,00 g   |
| Chromogenic substrate             | 0,05 g   |
| Ceftazidime                       | 0,02 g   |
| Nalidixic acid                    | 0,02 g   |
| Amphotericin B                    | 0,01 g   |
| Polymyxin B                       | 76,700 U |
| Sodium phosphate, dibasic         | 2,50 g   |
| Agar                              | 12,00 g  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, blue colonies with opaque halo    |                       |
| <i>Listeria innocua</i>       | ATCC 33091             | Good, blue colonies without opaque halo |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                               |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                               |                       |

**References:** Ottaviani et al. (1997) Quinper Froid Symposium Proceedings, P6 A.D.R.I.A. Quinper (F); ISO 11290-1

## ChromoBio® LISTERIA PLUS

A selective and differential chromogenic medium for the cultivation, differentiation and isolation of *Listeria monocytogenes*. *Listeria ivanovii* can also be differentiated from *Listeria monocytogenes* on this medium.

### Dehydrated media

|                           |  |
|---------------------------|--|
| Code Number:              | <b>500 g: LCA20500</b>                                     |
|                           | <b>packaging: 500 g agar base + 14 x 100 ml supplement</b> |
|                           | <b>5 kg: LCA25000</b>                                      |
|                           | <b>packaging: 5 kg agar base + 140 x 100 ml supplement</b> |
| Appearance of agar base:  | <b>Beige, homogeneous hygroscopic powder</b>               |
| Appearance of supplement: | <b>Yellowish solution</b>                                  |
| pH before autoclaving:    | <b>7,2 (approx.) at 25 °C</b>                              |

**Direction:** Suspend **35 g** agar base in 400 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically **100 ml of Listeria Supplement (LDS80100)**. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: LCA30100, 500 ml: LCA30500</b> |
| Plated media:            | <b>55 mm: LCA50055, 90 mm: LCA50090</b>   |
| Colour of bottled media: | <b>Purple</b>                             |
| Colour of plated media:  | <b>Purple, homogeneous turbid</b>         |
| pH (25 °C):              | <b>7,1 – 7,3</b>                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA OF ONE LITRE OF COMPLETE MEDIUM

|                                   |          |
|-----------------------------------|----------|
| Peptones                          | 34,00 g  |
| Special carbohydrate mixture      | 2,00 g   |
| Lithium chloride                  | 10,00 g  |
| Sodium chloride                   | 5,00 g   |
| Sodium pyruvate                   | 2,00 g   |
| Magnesium glycerophosphate        | 1,00 g   |
| Magnesium sulphate                | 0,50 g   |
| L- $\alpha$ -Phosphatidylinositol | 2,00 g   |
| Chromogenic substrate             | 0,05 g   |
| Nalidixic acid                    | 0,02 g   |
| Ceftazidime                       | 0,02 g   |
| Amphotericin B                    | 0,01 g   |
| Polymyxin B                       | 76.700 U |
| Bromocresol purple                | 0,05 g   |
| Buffers                           | 2,50 g   |
| Agar                              | 12,00 g  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 48 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, yellowish green colonies with opaque halo and yellow colouration in the medium         |                       |
| <i>Listeria ivanovii</i>      | ATCC 19119             | Moderate, deep blue colonies with opaque halo but without yellow colouration in the medium   |                       |
| <i>Listeria innocua</i>       | ATCC 33091             | Good, yellowish green colonies with yellow colouration in the medium but without opaque halo |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited  |                       |

**References:** Ottaviani et al. (1997) Quinper Froid Symposium Proceedings, P6 A.D.R.I.A. Quinper (F)

### ChromoBio® LMX

A selective and differential chromo- and fluorogenic medium for the detection of coliforms and differentiation of *E. coli* from other coliforms.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: LMX20500, 5 kg: LMX25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 6,8 (approx.) at 25 °C          |

**Direction:** Suspend 17 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: LMX30100, 500 ml: LMX30500 |
| Tubed media:   | 150 x 15 mm: LMX40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 6,7 – 6,9                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                                   |      |
|-----------------------------------|------|
| Peptones                          | 5,00 |
| Tryptophan                        | 1,00 |
| Sorbitol                          | 1,00 |
| Sodium chloride                   | 5,00 |
| Sodium lauryl sulphate            | 0,10 |
| Chromo- and fluorogenic substrate | 0,23 |
| Buffers                           | 4,70 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |              |                   |
|-------------------------------|------------------------|-----------|-----------------------|--------------|-------------------|
|                               |                        |           | Colour change to blue | Fluorescence | Indole production |
| <i>Escherichia coli</i>       | ATCC 25922             | +         | +                     | +            | +                 |
| <i>Citrobacter freundii</i>   | ATCC 8090              | +         | –                     | –            | –                 |
| <i>Salmonella typhimurium</i> | ATCC 14028             | –         | –                     | –            | –                 |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited |                       |              |                   |

**References:** Manafi and Kneifel (1989) Zentralbl. Hyg. 189: 225.

### ChromoBio® M-CP BASE

A selective and differential chromogenic medium for the enumeration of *Clostridium perfringens*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MCP20500, 5 kg: MCP25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,6 (approx.) at 25 °C          |

**Direction for 100 ml agar:** Suspend 7,1 g in 100 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-01)** and **one vial of M-CP Selective Supplement (MPS80004-01)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 35,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-02)** and **one vial of M-CP Selective Supplement (MPS80004-02)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MCP30100, 500 ml: MCP30500 |
| Plated media:  | 55 mm: MCP50055, 90 mm: MCP50090   |
| Colour:        | Purple                             |
| pH (25 °C):    | 7,5 – 7,7                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                       |       |
|-----------------------|-------|
| Peptones              | 50,00 |
| L-Cysteine            | 1,00  |
| Sucrose               | 5,00  |
| Magnesium sulphate    | 0,10  |
| Chromogenic substrate | 0,06  |
| Bromocresol purple    | 0,04  |
| Agar                  | 14,90 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C, but no longer than 2 or 3 days.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, red colonies with NH <sub>3</sub> exposition (under anaerobic conditions) |                       |
| <i>Escherichia coli</i>        | ATCC 25922             | Inhibited   |                       |

**References:** ISO 6461-1; ISO 6461-2

NEW PRODUCT

### ChromoBio® MLGA

A selective and differential chromogenic medium for the differentiation and enumeration of *E. coli* and other coliforms by membrane filtration.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MLG20500, 5 kg: MLG25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **88 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MLG30100, 500 ml: MLG30500</b> |
| Plated media:  | <b>55 mm: MLG50055, 90 mm: MLG50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                        |      |
|------------------------|------|
| Peptones               | 46,0 |
| Lactose                | 30,0 |
| Sodium lauryl sulphate | 1,0  |
| Sodium pyruvate        | 0,5  |
| Chromogenic substrate  | 0,3  |
| Phenol red             | 0,2  |
| Agar                   | 10,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, green colonies  |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good, yellow colonies |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, red colonies    |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited             |                       |

### ChromoBio® SALMONELLA BASE

A selective and differential chromogenic medium for the detection of *Salmonella* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SAL20500, 5 kg: SAL25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **21,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Salmonella Selective Supplement (SSS80004)** reconstituted with 4 ml sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SAL30100, 500 ml: SAL30500</b> |
| Plated media:  | <b>55 mm: SAL50055, 90 mm: SAL50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 10 |
| Chromogenic substrate                   | 20 |
| Agar                                    | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                         | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, mauve colonies           |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Good, blue colonies            |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited, colourless colonies |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited, green colonies      |                       |

NEW PRODUCT

### ChromoBio® SALMONELLA PLUS BASE

A selective and differential chromogenic medium for the detection of *Salmonella* spp. Comparing with ChromoBio® Salmonella Base the medium has increased selectivity (especially inhibits the *E. coli* efficiently).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SAP20500, 5 kg: SAP25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **22,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Salmonella Plus Selective Supplement (SSP80004)** reconstituted with 4 ml sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SAP30100, 500 ml: SAP30500</b> |
| Plated media:  | <b>55 mm: SAP50055, 90 mm: SAP50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 10 |
| Chromogenic substrate                   | 22 |
| Agar                                    | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                         | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, mauve colonies           |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Good, blue colonies            |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited, colourless colonies |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited, green colonies      |                       |

## ChromoBio® TBX

A selective and differential chromogenic medium for the detection and enumeration of *E. coli*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TBX20500, 5 kg: TBX25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TBX30100, 500 ml: TBX30500</b> |
| Plated media:  | <b>55 mm: TBX50055, 90 mm: TBX50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                       |        |
|-----------------------|--------|
| Peptones              | 20,000 |
| Bile salt             | 1,500  |
| Chromogenic substrate | 0,075  |
| Agar                  | 15,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                                     | Incubation time: 24 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, blue colonies                        |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited                                  |                       |

**References:** Frampton et al. (1988) J. Food Protection 51: 402.

## ChromoBio® URINE

A differential chromogenic medium for the simultaneous detection of all the main micro-organisms that cause urinary tract infections.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: URN20500, 5 kg: URN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **47 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: URN30100, 500 ml: URN30500</b> |
| Plated media:  | <b>55 mm: URN50055, 90 mm: URN50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                       |    |
|-----------------------|----|
| Peptones              | 25 |
| Chromogenic substrate | 6  |
| Agar                  | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, purple – claret colonies       |                       |
| <i>Citrobacter freundii</i>   | ATCC 8090              | Good, red colonies                   |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good, greyish-blue colonies          |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Good, brown colonies with brown halo |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies            |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good, green colonies                 |                       |

## CLAUSEN MEDIUM BASE

A non-selective medium for sterility testing of sterile pharmaceutical preparations. The medium has better growth conditions than thioglycollate and also inactivates a large number of preservatives found in pharmaceutical products.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CLB20500, 5 kg: CLB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **40 g** in one litre of distilled water. Add **3 ml of TWEEN 80 Supplement (TWS80100)** and **5 ml of Glycerol Supplement (GLC80100)**. Mix well and keep the suspension at about 50 °C until the lecithin dissolves completely (20–30 min). The dissolution is ready, when the medium is yellowish and slightly turbid, but exempt from any precipitate. Heat again with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CLB30100, 500 ml: CLB30500</b> |
| Tubed media:   | <b>150 x 15 mm: CLB40015 (15 ml)</b>      |
| Colour:        | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|   |        |
|---|--------|
| Peptones  | 23,700 |
| L-Asparagine  | 1,250  |
| L-Cystine   | 0,500  |
| Glucose   | 6,000  |
| Sodium chloride   | 2,500  |
| Sodium citrate  | 1,000  |
| Sodium thioglycollate   | 0,500  |
| Sodium dithionite   | 0,400  |
| Mg(II), Ca(II), Co(II), Cu(II), Fe(III), Zn(II), Mn(II) salts | 0,410  |
| Lecithin  | 1,000  |
| Resazurin   | 0,001  |
| Buffers   | 2,000  |
| Agar  | 0,750  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Staphylococcus aureus</i>   | ATCC 29213             | Good                              |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Clausen (1956) Acta path. microbiol. scand. 38: 107.

## CLED AGAR

A differential medium for the isolation and enumeration of micro-organisms from urine.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CLA20500, 5 kg: CLA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CLA30100, 500 ml: CLA30500</b> |
| Plated media:  | <b>55 mm: CLA50055, 90 mm: CLA50090</b>   |
| Colour:        | <b>Turquoise green</b>                    |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 11,900 |
| L-Cystine        | 0,128  |
| Lactose          | 10,000 |
| Bromothymol blue | 0,020  |
| Agar             | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, yellow colonies                |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, blue colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, small yellow colonies          |                       |

**References:** Mackey et al. (1966) Br. Med. J. 1: 1173.

## CLED AGAR WITH ANDRADE INDICATOR

A differential medium for the isolation and enumeration of micro-organisms from urine. The double indicator enhances the differentiation of colony characteristics.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CLD20500, 5 kg: CLD25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CLD30100, 500 ml: CLD30500</b> |
| Plated media:  | <b>55 mm: CLD50055, 90 mm: CLD50090</b>   |
| Colour:        | <b>Turquoise green</b>                    |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                   |        |
|-------------------|--------|
| Peptones          | 11,900 |
| L-Cystine         | 0,128  |
| Lactose           | 10,000 |
| Andrade indicator | 0,100  |
| Bromothymol blue  | 0,020  |
| Agar              | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, red colonies                   |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, blue colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, small red colonies             |                       |

**References:** Bevis (1968) J. Med. Lab. Tech. 25: 38.



## II. DEHYDRATED CULTURE MEDIA

### CLOSTRIDIUM DIFFICILE (CCFA) AGAR BASE

A selective medium for the isolation of *Clostridium difficile*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: CCF20500, 5 kg: CCF25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 34,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of **Clostridium Selective Supplement (CDS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring. Because of the sensitivity of some *Clostridium difficile* strains, the amount of cycloserine and cefoxitin is reduced. If you want to compensate the decreased selectivity, treat the specimen with alcohol before inoculation.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: CCF30100, 500 ml: CCF30500 |
| Plated media:  | 55 mm: CCF50055, 90 mm: CCF50090   |
| Colour:        | Brownish                           |
| pH (25 °C):    | 7,3 – 7,5                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 40,00 |
| Fructose           | 6,00  |
| Sodium chloride    | 2,00  |
| Magnesium sulphate | 0,20  |
| Neutral red        | 0,03  |
| Buffers            | 5,80  |
| Agar               | 20,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth   | Incubation time: 48 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Clostridium difficile</i> | ATCC 9689              | Good, yellow colonies (under anaerobic conditions) |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited  |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited  |                       |

**References:** George et al. (1976) J. Clin. Microbiol. 9: 214.

### CLOSTRIDIUM DIFFICILE AGAR BASE

A selective medium for the isolation of *Clostridium difficile*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: CDA20500, 5 kg: CDA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 34,5 g in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 35 ml of sterile defibrinated blood and the contents of one vial of **Clostridium Selective Supplement (CDS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

Because of the sensitivity of some *Clostridium difficile* strains, the amount of cycloserine and cefoxitin is reduced. If you want to compensate the decreased selectivity, treat the specimen with alcohol before inoculation.

#### Prepared media

|                          |                                    |
|--------------------------|------------------------------------|
| Bottled media:           | 100 ml: CDA30100, 500 ml: CDA30500 |
| Plated media:            | 55 mm: CDA50055, 90 mm: CDA50090   |
| Colour of bottled media: | Yellowish                          |
| Colour of plated media:  | Dark red                           |
| pH (25 °C):              | 7,3 – 7,5                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 40,0 |
| Fructose           | 6,0  |
| Sodium chloride    | 2,0  |
| Magnesium sulphate | 0,1  |
| Buffers            | 5,9  |
| Agar               | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Clostridium difficile</i> | ATCC 9689              | Good, greyish white colonies (under anaerobic conditions) |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited   |                       |

**References:** George et al. (1976) J. Clin. Microbiol. 9: 214.

### COLUMBIA AGAR, PH EUR – USP

A multi-purpose non-selective medium for the cultivation of non-fastidious and fastidious micro-organisms according to PH EUR (Agar Medium Q – Harmonised).

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: CLE20500, 5 kg: CLE25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,3 (approx.) at 25 °C          |

**Direction:** Suspend 42 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If addition of supplement is necessary, cool to 50 °C and add aseptically the sterile supplement (e.g. 20 mg/litre gentamicin sulphate according to the pharmacopoeia). Mix well before pouring.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: CLE30100, 500 ml: CLE30500 |
| Plated media:  | 55 mm: CLE50055, 90 mm: CLE50090   |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 7,2 – 7,4                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. If necessary, supplement may be added to the melted bottled medium according to the direction of the dehydrated media. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Casein peptone  | 10 |
| Meat peptone    | 5  |
| Heart infusion  | 3  |
| Yeast extract   | 5  |
| Starch, soluble | 1  |
| Sodium chloride | 5  |
| Agar            | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good                              |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Good                              |                       |
| <i>Clostridium sporogenes</i> | ATCC 19404             | Good (under anaerobic conditions) |                       |

**References:** European Pharmacopoeia

### COLUMBIA BLOOD AGAR BASE

A multi-purpose non-selective medium for the cultivation of non-fastidious and fastidious micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: COL20500, 5 kg: COL25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction for Columbia Blood Agar:** Suspend **42 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

**Direction for Columbia Blood Agar + Ampicillin:** Dissolve the contents of **one vial of Ampicillin (5 mg) Supplement (AMP80004)** with 4 ml of sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

**Direction for Gardnerella Selective Agar:** Dissolve the contents of **one vial of Gardnerella Selective Supplement (GAS80004)** with 4 ml of sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

### Prepared media

|   |   |
|---|---|
| Bottled media:                          | <b>100 ml: COL30100, 500 ml: COL30500</b>     |
| Plated Columbia Blood Agar:             | <b>55 mm: COL50055, 90 mm: COL50090</b>       |
| Plated Columbia Blood Agar + Ampicillin | <b>55 mm: COL50055-AM, 90 mm: COL50090-AM</b> |
| Plated Gardnerella Selective Agar:      | <b>55 mm: COL50055-GA, 90 mm: COL50090-GA</b> |
| Colour of bottled agar:                 | <b>Yellowish</b>                              |
| Colour of plated agars:                 | <b>Ruby red</b>                               |
| pH (at 25 °C):                          | <b>7,2 – 7,4</b>                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 23 |
| Starch, soluble                         | 1  |
| Sodium chloride                         | 5  |
| Agar                                    | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control of Columbia Blood Agar:

| Test strains                    | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|---------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good, alpha haemolysis (under micro-aerobic conditions) |                       |
| <i>Streptococcus pyogenes</i>   | ATCC 19615             | Good, beta haemolysis (under micro-aerobic conditions)  |                       |
| <i>Enterococcus faecalis</i>    | ATCC 29212             | Good, without haemolysis                                |                       |

### Quality Control of Columbia Blood Agar + Ampicillin:

| Test strains                  | Incubation temp: 37 °C | Growth                                     | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good                                       |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Inhibited (under micro-aerobic conditions) |                       |

### Quality Control of Gardnerella Selective Agar:

| Test strains                 | Incubation temp: 37 °C | Growth   | Incubation time: 48 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Gardnerella vaginalis</i> | ATCC 14018             | Good, beta haemolysis (under micro-aerobic conditions) |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Inhibited  |                       |

**References:** Ellner et al. (1966) Am. J. Clin. Pathol. 45: 502.

### COLUMBIA CNA AGAR BASE

A selective medium for the isolation and differentiation of Gram-positive micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CNA20500, 5 kg: CNA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                         |   |
|-------------------------|---|
| Bottled media:          | <b>100 ml: CNA30100, 500 ml: CNA30500</b> |
| Plated media:           | <b>55 mm: CNA50055, 90 mm: CNA50090</b>   |
| Colour of bottled agar: | <b>Yellowish</b>                          |
| Colour of plated agar:  | <b>Ruby red</b>                           |
| pH (at 25 °C):          | <b>7,2 – 7,4</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |       |
|---|-------|
| Nutrient substrate (peptones, extracts) | 23,00 |
| Starch, soluble                         | 1,00  |
| Sodium chloride                         | 5,00  |
| Nalidixic acid                          | 0,01  |
| Colistin                                | 0,01  |
| Agar                                    | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|---------------------------------|------------------------|--|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good, alpha haemolysis<br>(under micro-aerobic conditions) |                       |
| <i>Streptococcus pyogenes</i>   | ATCC 19615             | Good, beta haemolysis<br>(under micro-aerobic conditions)  |                       |
| <i>Enterococcus faecalis</i>    | ATCC 29212             | Good, without haemolysis                                   |                       |
| <i>Escherichia coli</i>         | ATCC 29906             | Inhibited  |                       |

**References:** Ellner et al. (1966) Am. J. Clin. Pathol. 45: 502.

### CZAPEK YEAST EXTRACT AGAR

A selective medium for the cultivation of fungi and soil bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CYA20500, 5 kg: CYA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **55 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CYA30100, 500 ml: CYA30500</b> |
| Plated media:  | <b>55 mm: CYA50055, 90 mm: CYA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,2 – 6,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Yeast extract      | 5,000  |
| Sucrose            | 30,000 |
| Sodium nitrate     | 3,000  |
| Magnesium sulphate | 0,500  |
| Potassium chloride | 0,500  |
| Ferrous sulphate   | 0,010  |
| Zinc sulphate      | 0,010  |
| Copper sulphate    | 0,005  |
| Buffers            | 1,500  |
| Agar               | 14,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Aspergillus niger</i>        | ATCC 16404             | Good   |                       |
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |
| <i>Bacillus subtilis</i>        | ATCC 6633              | Good   |                       |

**References:** Warcup (1950) Nature 166: 117.

### CZAPEK DOX AGAR

A selective medium for the cultivation of fungi and soil bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CZA20500, 5 kg: CZA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **48 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If adjustment of pH is necessary to pH 3,5 (approx.), cool to 50 °C and add aseptically **Lactic Acid Solution (LAS80100)** to the medium in the necessary quantity (approx. 10 ml). Mix well before pouring.

#### Warning!

Once acidified with lactic acid, the medium should not be reheated.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CZA30100, 500 ml: CZA30500</b> |
| Plated media:  | <b>55 mm: CZA50055, 90 mm: CZA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Sucrose            | 30,00 |
| Sodium nitrate     | 3,00  |
| Magnesium sulphate | 0,50  |
| Potassium chloride | 0,50  |
| Ferrous sulphate   | 0,01  |
| Buffers            | 1,00  |
| Agar               | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Aspergillus niger</i>        | ATCC 16404             | Good   |                       |
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |
| <i>Bacillus subtilis</i>        | ATCC 6633              | Good   |                       |

**References:** APHA (1992) Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> ed.

### DEOXYCHOLATE CITRATE AGAR, HYNES, MODIFIED

A selective and differential medium for the isolation of Gram-negative enteric microorganisms. Deoxycholate Citrate Agar, Hynes is more selective than Deoxycholate Citrate Agar, Leifson. The medium supplemented with phenylalanine is suitable to distinguish *Salmonella* spp. from *Proteus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DCH20500, 5 kg: DCH25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **73 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DCH30100, 500 ml: DCH30500</b> |
| Plated media:  | <b>55 mm: DCH50055, 90 mm: DCH50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Peptones            | 26,50 |
| L-Phenylalanine     | 1,00  |
| Lactose             | 10,00 |
| Sodium citrate      | 9,00  |
| Sodium thiosulphate | 5,50  |
| Sodium deoxycholate | 5,00  |
| Ferric citrate      | 1,00  |
| Neutral red         | 0,02  |
| Agar                | 15,00 |

**Note:** The typical composition can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, rose-red colonies                                       |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies with shiny black centre without brown halo         |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Good, brown colonies with matt black centre with brown halo without swarming |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited  |                       |

**References:** Hynes (1942) J. Path. Bact. 54: 193.

### DEOXYCHOLATE CITRATE AGAR, LEIFSON, MODIFIED

A selective and differential medium for the isolation of Gram-negative enteric micro-organisms. Deoxycholate Citrate Agar, Leifson is less selective than Deoxycholate Citrate Agar, Hynes. The medium supplemented with phenylalanine is suitable to distinguish *Salmonella* spp. from *Proteus* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DCC20500, 5 kg: DCC25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **66 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DCC30100, 500 ml: DCC30500</b> |
| Plated media:  | <b>55 mm: DCC50055, 90 mm: DCC50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Peptones            | 26,50 |
| L-Phenylalanine     | 1,00  |
| Lactose             | 10,00 |
| Sodium citrate      | 5,00  |
| Sodium thiosulphate | 5,00  |
| Sodium deoxycholate | 2,50  |
| Ferric citrate      | 1,00  |
| Neutral red         | 0,02  |
| Agar                | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, rose-red colonies  |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good growth, colourless colonies with shiny black centre without brown halo         |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Good growth without swarming, brown colonies with matt black centre with brown halo |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** Leifson (1935) J. Path. Bact. 40: 581.

### DEOXYCHOLATE CITRATE AGAR, PH EUR

A selective and differential medium for the isolation of Gram-negative enteric micro-organisms according to PH EUR (Agar Medium J).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DCE20500, 5 kg: DCE25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **70 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DCE30100, 500 ml: DCE30500</b> |
| Plated media:  | <b>55 mm: DCE50055, 90 mm: DCE50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Meat peptone        | 10,00 |
| Beef extract        | 10,00 |
| Lactose monohydrate | 10,00 |
| Sodium citrate      | 20,00 |
| Sodium deoxycholate | 5,00  |
| Ferric citrate      | 1,00  |
| Neutral red         | 0,02  |
| Agar                | 14,00 |

**Note:** The typical composition can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, rose-red colonies                                      |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies with black centre                                 |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Partially inhibited, colourless colonies with black centre without swarming |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** European Pharmacopoeia

### DEOXYCHOLATE LACTOSE AGAR

A selective and differential medium for the enumeration and isolation of coliform micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DCL20500, 5 kg: DCL25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DCL30100, 500 ml: DCL30500</b> |
| Plated media:  | <b>55 mm: DCL50055, 90 mm: DCL50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 14,500 |
| Lactose             | 10,000 |
| Sodium chloride     | 5,000  |
| Sodium citrate      | 2,000  |
| Sodium deoxycholate | 0,500  |
| Neutral red         | 0,033  |
| Agar                | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, rose-red colonies                           |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good growth, colourless colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** APHA (1992) Compendium of Methods for the Microbiological Examinations of Foods, 3<sup>rd</sup> ed.

### DEXTROSE BROTH

A general purpose enrichment medium that is also suitable for dextrose fermentation studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DEB20500, 5 kg: DEB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers. Durham tubes may be added to the tubes in order to detect gas production. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DEB30100, 500 ml: DEB30500</b>                             |
| Tube media:    | <b>100 x 12 mm: DEB40001 (1 ml),<br/>100 x 15 mm: DEB40005 (5 ml)</b> |
| Colour:        | <b>Yellowish</b>  |
| pH (at 25 °C): | <b>7,2 – 7,4</b>  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 10 |
| Glucose         | 5  |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                        | Incubation time: 24 h |
|------------------------------|------------------------|-------------------------------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good (gas production)         |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good (without gas production) |                       |

## II. DEHYDRATED CULTURE MEDIA

### DEXTRSE TRYPTONE AGAR

A differential medium for the detection and enumeration of mesophilic and thermophilic aerob micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DTR20500, 5 kg: DTR25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **28 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DTR30100, 500 ml: DTR30500</b> |
| Plated media:  | <b>55 mm: DTR50055, 90 mm: DTR50090</b>   |
| Colour:        | <b>Purple</b>                             |
| pH (25 °C):    | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Tryptone           | 10,00 |
| Glucose            | 5,00  |
| Bromocresol purple | 0,04  |
| Agar               | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                       | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|------------------------------------|------------------------|-----------------------|-----------------------|
| <i>Bacillus stearothermophilus</i> | ATCC 12980             | Good, yellow colonies |                       |

**References:** Williams (1936) Food Res. 1: 217.

### DEXTRSE TRYPTONE BROTH

A differential medium for the detection of mesophilic and thermophilic aerob micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DTB20500, 5 kg: DTB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **15 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DTB30100, 500 ml: DTB30500</b> |
| Tubed media:   | <b>150 x 15 mm: DTB40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Tryptone           | 10,00 |
| Glucose            | 5,00  |
| Bromocresol purple | 0,04  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                       | Incubation temp: 37 °C | Growth                        | Incubation time: 24 h |
|------------------------------------|------------------------|-------------------------------|-----------------------|
| <i>Bacillus stearothermophilus</i> | ATCC 12980             | Good, colour change to yellow |                       |

**References:** Williams (1936) Food Res. 1: 217.

### DG18 AGAR BASE

A selective medium with low water activity for the enumeration and isolation of yeasts and moulds, especially the xerophilic moulds.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: D1820500, 5 kg: D1825000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Fill up **175 ml of Glycerol Supplement (GLC80500)** to one litre with distilled water. Suspend **31 g of dehydrated medium** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: D1830100, 500 ml: D1830500</b> |
| Plated media:  | <b>55 mm: D1850055, 90 mm: D1850090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>5,5 – 5,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                                |        |
|--------------------------------|--------|
| Peptones                       | 5,000  |
| Glucose                        | 10,000 |
| Magnesium sulphate             | 0,500  |
| Chloramphenicol                | 0,100  |
| Dichloran                      | 0,002  |
| Potassium phosphate, monobasic | 1,000  |
| Agar                           | 14,400 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Hocking and Pitt (1980) J. Appl. Envir. Micr. 39: 488.  
ISO 21527-2: 2008

## II. DEHYDRATED CULTURE MEDIA

### DIAGNOSTIC SENSITIVITY TEST AGAR

A dual purpose medium for the isolation and antimicrobial susceptibility testing of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DST20500, 5 kg: DST25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend 41 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DST30100, 500 ml: DST30500</b> |
| Plated media:  | <b>55 mm: DST50055, 90 mm: DST50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                       |          |
|-----------------------|----------|
| Peptones              | 10,00000 |
| Veal heart extract    | 10,00000 |
| Glucose               | 2,00000  |
| Sodium chloride       | 3,00000  |
| Adenine sulphate      | 0,01000  |
| Guanine hydrochloride | 0,01000  |
| Uracil                | 0,01000  |
| Xanthine              | 0,01000  |
| Thiamine HCl          | 0,00003  |
| Buffers               | 3,00000  |
| Agar                  | 13,00000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good   |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good   |                       |

**References:** Ericsson et al. (1971) Acta Path. Microbiol. Scan. B. Suppl. 217.

### DIASALM MEDIUM BASE

A semi-solid selective medium for the detection of motile *Salmonella* spp.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: DIM20500, 5 kg: DIM25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>5,5 (approx.) at 25 °C</b>          |

**Direction:** Fill up 20 ml of DIASALM-MSRV Magnesium Chloride Solution (DSM80500) to 500 ml with distilled water. Suspend 20 g of dehydrated medium and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of one vial of Novobiocin (5 mg) Supplement (DSN80004-05) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DIM30100, 500 ml: DIM30500</b> |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                               |        |
|-------------------------------|--------|
| Peptones                      | 27,000 |
| Sucrose                       | 7,500  |
| Lactose                       | 0,500  |
| Magnesium chloride, anhydrous | 10,930 |
| Sodium thiosulphate           | 0,800  |
| Ferrous ammonium sulphate     | 0,200  |
| Bromocresol purple            | 0,080  |
| Malachite green               | 0,037  |
| Buffers                       | 1,200  |
| Agar                          | 2,700  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                   | Incubation time: 24 h |
|-------------------------------|------------------------|--------------------------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colour motile zone |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited                |                       |

**References:** Van der Zee and Van Netten (1992) Proc. Symp. "Salmonella and Salmonellosis". Ploufragan: 69.

### DNASE AGAR

A differential medium for the detection of deoxyribonuclease activity of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DNA20500, 5 kg: DNA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend 40 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DNA30100, 500 ml: DNA30500</b> |
| Plated media:  | <b>55 mm: DNA50055, 90 mm: DNA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                       |    |
|-----------------------|----|
| Tryptose              | 20 |
| Sodium chloride       | 5  |
| Deoxyribonucleic acid | 2  |
| Agar                  | 13 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-----------------------------------|------------------------|--|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, with clear zone (flooded with 1N HCl)    |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 14990             | Good, without clear zone (flooded with 1N HCl) |                       |

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

### DNASE AGAR WITH MANNITOL

A differential medium for the detection of deoxyribonuclease activity of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DNM20500, 5 kg: DNM25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DNM30100, 500 ml: DNM30500</b> |
| Plated media:  | <b>55 mm: DNM50055, 90 mm: DNM50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                       |       |
|-----------------------|-------|
| Tryptose              | 20,00 |
| Mannitol              | 10,00 |
| Sodium chloride       | 5,00  |
| Deoxyribonucleic acid | 2,00  |
| Phenol red            | 0,02  |
| Agar                  | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|-----------------------------------|------------------------|--|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, yellow colonies with yellow halo |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 14990             | Good, red colonies with red halo       |                       |

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

### DNASE AGAR WITH METHYL GREEN

A differential medium for the detection of deoxyribonuclease activity of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DNG20500, 5 kg: DNG25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DNG30100, 500 ml: DNG30500</b> |
| Plated media:  | <b>55 mm: DNG50055, 90 mm: DNG50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                       |       |
|-----------------------|-------|
| Tryptose              | 20,00 |
| Sodium chloride       | 5,00  |
| Deoxyribonucleic acid | 2,00  |
| Methyl green          | 0,05  |
| Agar                  | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth                     | Incubation time: 24 h |
|-----------------------------------|------------------------|----------------------------|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, with colourless halo |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 14990             | Good, without halo         |                       |

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

### DNASE AGAR WITH TOLUIDIN BLUE

A differential medium for the detection of deoxyribonuclease activity of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: DNT20500, 5 kg: DNT25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DNT30100, 500 ml: DNT30500</b> |
| Plated media:  | <b>55 mm: DNT50055, 90 mm: DNT50090</b>   |
| Colour:        | <b>Blue</b>                               |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.



## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                       |      |
|-----------------------|------|
| Tryptose              | 20,0 |
| Sodium chloride       | 5,0  |
| Deoxyribonucleic acid | 2,0  |
| Toluidine blue        | 0,1  |
| Agar                  | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth               | Incubation time: 24 h |
|-----------------------------------|------------------------|----------------------|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, with pink halo |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 14990             | Good, without halo   |                       |

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

### DRIGALSKI GLUCOSE AGAR

A glucose containing selective and differential medium for detection and enumeration of Enterobacteriaceae.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: DAC20500, 5 kg: DAC25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **47 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DAC30100, 500 ml: DAC30500</b> |
| Plated media:  | <b>55 mm: DAC50055, 90 mm: DAC50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 18,400 |
| Bile salt        | 1,500  |
| Glucose          | 10,000 |
| Sodium chloride  | 2,000  |
| Bromothymol blue | 0,150  |
| Crystal violet   | 0,002  |
| Agar             | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, yellow colonies                  |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, yellow colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited                              |                       |

**References:** Ewing (1986) Edwards and Ewing's identifications of the enterobacteriaceae, 4<sup>th</sup> ed.

### DRIGALSKI LACTOSE AGAR

A lactose containing selective and differential medium for detection and enumeration of coliforms.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: DAS20500, 5 kg: DAS25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **66 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: DAS30100, 500 ml: DAS30500</b> |
| Plated media:  | <b>55 mm: DAS50055, 90 mm: DAS50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 17,400 |
| Bile salt        | 1,500  |
| Sucrose          | 17,000 |
| Lactose          | 13,000 |
| Sodium chloride  | 2,000  |
| Bromothymol blue | 0,150  |
| Crystal violet   | 0,002  |
| Agar             | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, yellow colonies                |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, blue colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited                            |                       |

**References:** Ewing (1986) Edwards and Ewing's identifications of the enterobacteriaceae, 4<sup>th</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### DTM AGAR BASE

A highly selective medium for the isolation of dermatophytes.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: DTM20500, 5 kg: DTM25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 5,5 (approx.) at 25 °C          |

**Direction:** Suspend 20 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of DTM Selective Supplement (DTS80004), reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

#### Prepared media

|                |                                     |
|----------------|-------------------------------------|
| Bottled media: | 100 ml: DTM30100, 500 ml: DTM30500  |
| Plated media:  | 55 mm: DTM50055, 90 mm: DTM50090    |
| Tubed media:   | 150 x 15 mm: DTM40006 (6 ml, slant) |
| Colour:        | Orange red                          |
| pH (25 °C):    | 5,4 – 5,6                           |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes or tubes. Media in Petri-dishes and tubes are ready to use.

#### FORMULA in g/l

|            |      |
|------------|------|
| Peptones   | 10,0 |
| Glucose    | 10,0 |
| Phenol red | 0,2  |
| Agar       | 20,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled and tubed media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Inhibited |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Taplin et al. (1969) Arch. Dermatol. 99: 203.

### EC BROTH

A selective and differential medium for the detection of coliforms.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: ECB20500, 5 kg: ECB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 6,8 (approx.) at 25 °C          |

**Direction:** Suspend 40 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: ECB30100, 500 ml: ECB30500 |
| Tubed media:   | 150 x 15 mm: ECB40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 6,7 – 6,9                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 23,0 |
| Bile salts      | 1,5  |
| Lactose         | 5,0  |
| Sodium chloride | 5,0  |
| Buffers         | 5,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                           | Incubation time: 24 h |
|-------------------------------|------------------------|----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good with intense gas production |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good with gas production         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29213             | Inhibited                        |                       |

**References:** Hajna and Perry (1943) Am. J. Public. Health. 33: 550.

### EDWARDS AGAR BASE

A selective medium for the isolation and enumeration of streptococci especially *Streptococcus agalactiae*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: EDA20500, 5 kg: EDA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 41 g in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile defibrinated sheep blood. Mix well before pouring.

#### Prepared media

|                         |                                    |
|-------------------------|------------------------------------|
| Bottled media:          | 100 ml: EDA30100, 500 ml: EDA30500 |
| Plated media:           | 55 mm: EDA50055, 90 mm: EDA50090   |
| Colour of bottled agar: | Purplish                           |
| Colour of plated agar:  | Ruby red                           |
| pH (at 25 °C):          | 7,3 – 7,5                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,000 |
| Sodium chloride | 5,000  |
| Esculin         | 1,000  |
| Thallos acetate | 0,300  |
| Crystal violet  | 0,001  |
| Agar            | 14,700 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth              | Incubation time: 24 h |
|---------------------------------|------------------------|---------------------|-----------------------|
| <i>Streptococcus agalactiae</i> | ATCC 49619             | Good, blue colonies |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited           |                       |

**References:** Edwards (1933) J. Comp. Path. Therap. 46: 211.

### EE BROTH, PH EUR – USP

A selective medium for the cultivation of Enterobacteriaceae according to PH EUR (Broth Medium E – Enterobacteriaceae Enrichment Broth, Mossel – Harmonised).

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: EEB20500, 5 kg: EEB25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise at 100 °C for 30 minutes. Cool quickly!

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EEB30100, 500 ml: EEB30500</b> |
| Tubed media:   | <b>150 x 15 mm: EEB40010 (10 ml)</b>      |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                                      |        |
|--------------------------------------|--------|
| Gelatin peptone                      | 10,000 |
| Bacteriological bile                 | 20,000 |
| Glucose monohydrate                  | 5,000  |
| Brilliant green                      | 0,015  |
| Potassium phosphate, monobasic       | 2,000  |
| Sodium phosphate, dibasic, dihydrate | 8,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                        | Incubation time: 24 h |
|------------------------------|------------------------|-------------------------------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, colour change to yellow |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited                     |                       |

**References:** Mossel et al. (1963) J. Appl. Bact. 26: 444.  
European Pharmacopoeia

### ELLIKER BROTH

A selective medium for the cultivation of streptococci and lactobacilli.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ELB20500, 5 kg: ELB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **49 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ELB30100, 500 ml: ELB30500</b> |
| Tubed media:   | <b>150 x 15 mm: ELB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 25,5 |
| Glucose         | 5,0  |
| Lactose         | 5,0  |
| Sucrose         | 5,0  |
| Sodium chloride | 4,0  |
| Sodium acetate  | 1,5  |
| Gelatin         | 2,5  |
| Ascorbic acid   | 0,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus casei</i>    | ATCC 7469              | Good   |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good   |                       |

**References:** McLaughlin (1946) J. Bacteriol. 51: 560.

### ENDO AGAR BASE, DEV

A selective and differential medium for the detection of coliforms and other enteric bacteria according to DEV.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: EDE20500, 5 kg: EDE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **58 g** in one litre of distilled water. Add **5 ml of Endo Basic Fuchsin Solution, DEV (FBS80045)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EDE30100, 500 ml: EDE30500</b> |
| Plated media:  | <b>55 mm: EDE50055, 90 mm: EDE50090</b>   |
| Colour:        | <b>Pale pink</b>                          |
| pH (25 °C):    | <b>6,8 – 7,0</b>                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 20,5 |
| Lactose         | 10,0 |
| Sodium chloride | 5,0  |
| Sodium sulphite | 2,5  |
| Agar            | 20,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, dark red colonies with green metallic sheen |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies                         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** DIN 38411

### ENDO AGAR BASE

A selective and differential medium for the detection of coliforms and other enteric bacteria.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: END20500, 5 kg: END25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in one litre of distilled water. Add **5 ml of Endo Basic Fuchsin Solution (FBS80060)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: END30100, 500 ml: END30500</b> |
| Plated media:  | <b>55 mm: END50055, 90 mm: END50090</b>   |
| Colour:        | <b>Pale pink</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 12,0 |
| Lactose         | 10,0 |
| Sodium sulphite | 2,5  |
| Buffers         | 2,5  |
| Agar            | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, dark red colonies with green metallic sheen |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies                         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** APHA (1998) Standard Methods for the Examination of Water and Wastewater. 20<sup>th</sup> ed.

### ENDO LES AGAR BASE

A selective and differential medium for the enumeration of coliforms by membrane filtration.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ELA20500, 5 kg: ELA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water. Add **5 ml of Endo Basic Fuchsin Solution (FBS80060)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ELA30100, 500 ml: ELA30500</b> |
| Plated media:  | <b>55 mm: ELA50055, 90 mm: ELA50090</b>   |
| Colour:        | <b>Pale pink</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                        |       |
|------------------------|-------|
| Peptones               | 15,00 |
| Lactose                | 10,00 |
| Sodium chloride        | 3,70  |
| Sodium sulphite        | 1,60  |
| Sodium deoxycholate    | 0,10  |
| Sodium lauryl sulphate | 0,05  |
| Buffers                | 4,50  |
| Agar                   | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, dark red colonies with green metallic sheen |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies                         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** McCarthy et al. (1961) Water Sewage Works 108: 238.

## II. DEHYDRATED CULTURE MEDIA

### ENDO M BROTH BASE

A selective and differential medium for one-step method of the enumeration of coliforms by membrane filtration.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ENB20500, 5 kg: ENB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **48 g** in one litre of distilled water. Add **10 ml of Endo Basic Fuchsin Solution (FBS80060)**. Mix well and heat with frequent agitation until the medium boils well. Cool and dispense aseptically into final containers.

#### Warning!

The medium is heat sensitive. No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ENB30100, 500 ml: ENB30500</b> |
| Tubed media:   | <b>100 x 12 mm: ENB40002 (2 ml)</b>       |
| Colour:        | <b>Pinkish red</b>                        |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                        |       |
|------------------------|-------|
| Peptones               | 22,50 |
| Lactose                | 12,50 |
| Sodium chloride        | 5,00  |
| Sodium sulphite        | 2,10  |
| Sodium deoxycholate    | 0,10  |
| Sodium lauryl sulphate | 0,05  |
| Buffers                | 5,75  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth on membrane filter                         | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, dark red colonies with green metallic sheen |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies                         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** APHA (1998) Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> ed.

### EOSIN METHYLENE BLUE AGAR, USP

A selective and differential medium for the isolation and differentiation of Gram-negative enteric bacteria according to USP.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: EMB20500, 5 kg: EMB25000</b> |
| Colour:                | <b>Pinkish purple</b>                  |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EMB30100, 500 ml: EMB30500</b> |
| Plated media:  | <b>55 mm: EMB50055, 90 mm: EMB50090</b>   |
| Colour:        | <b>Dark purple</b>                        |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                |        |
|----------------|--------|
| Peptones       | 10,500 |
| Lactose        | 10,000 |
| Eosin Y        | 0,400  |
| Methylene blue | 0,065  |
| Buffers        | 2,000  |
| Agar           | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                                       | Incubation time: 24 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, dark blue colonies with metallic sheen |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming   |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited                                    |                       |

**References:** Levine (1918) J. Infect. Dis. 23: 43.  
United States Pharmacopoeia

#### NEW PRODUCT

### EOSIN METHYLENE BLUE LACTOSE SUCROSE AGAR

A selective and differential medium for the isolation and differentiation of Gram-negative enteric bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: EMC20500, 5 kg: EMC25000</b> |
| Colour:                | <b>Pinkish purple</b>                  |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EMC30100, 500 ml: EMC30500</b> |
| Plated media:  | <b>55 mm: EMC50055, 90 mm: EMC50090</b>   |
| Colour:        | <b>Dark purple</b>                        |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                |        |
|----------------|--------|
| Peptones       | 10,500 |
| Lactose        | 5,000  |
| Sucrose        | 5,000  |
| Eosin Y        | 0,400  |
| Methylene blue | 0,065  |
| Buffers        | 2,000  |
| Agar           | 13,000 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                       | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, dark blue colonies with metallic sheen |                       |
| <i>Salmonella typhimurium</i> | ATCC 4028              | Good, colourless colonies, without swarming  |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                                    |                       |

**References:** APHA (1950) Diagnostic Procedures and Reagents, 2<sup>nd</sup> ed.

### ESCULIN AGAR

A differential medium for the differentiation of bacteria on the basis of esculin hydrolysis.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ESA20500, 5 kg: ESA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media:

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: ESA30100 500 ml: ESA30500</b> |
| Tubed media:   | <b>100 x 12 mm: ESA40003 (3 ml)</b>      |
| Colour:        | <b>Yellowish</b>                         |
| pH (25 °C)     | <b>7,1 – 7,3</b>                         |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                |    |
|----------------|----|
| Peptones       | 18 |
| Ferric citrate | 1  |
| Esculin        | 1  |
| Agar           | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                           | Incubation time: 24 h |
|-------------------------------|------------------------|----------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Positive, colour change to black |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Negative, without colour change  |                       |

**References:** Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol.

### ESCULIN BROTH

A differential medium for the differentiation of bacteria on the basis of esculin hydrolysis.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ESB20500, 5 kg: ESB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **12 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ESB30100, 500 ml: ESB30500</b> |
| Tubed media:   | <b>100 x 12 mm: ESB40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                |    |
|----------------|----|
| Peptones       | 10 |
| Esculin        | 1  |
| Ferric citrate | 1  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                           | Incubation time: 24 h |
|-------------------------------|------------------------|----------------------------------|-----------------------|
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Positive, colour change to black |                       |
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Negative, without colour change  |                       |

**References:** Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol.

### ETHYL VIOLET AZIDE (EVA) BROTH

A selective medium for the presumptive identification of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: EVA20500, 5 kg: EVA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EVA30100, 500 ml: EVA30500</b> |
| Tubed media:   | <b>150 x 15 mm: EVA40010 (10 ml)</b>      |
| Colour:        | <b>Greyish</b>                            |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,000 |
| Glucose         | 5,000  |
| Sodium chloride | 5,000  |
| Sodium azide    | 0,4000 |
| Ethyl violet    | 0,0008 |
| Buffers         | 5,6000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 51299             | Good      |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited |                       |

**References:** Litsky et al. (1953) Am. J. Pub. Health. 43: 873.

### NEW PRODUCT

#### EUGON LT 100 AGAR BASE

A neutralising medium for the preparation and enrichment of test samples in the cosmetic industries.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: EUA20500, 5 kg: EUA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 45 g in one litre of distilled water. Add 5 ml of TWEEN 80 Supplement (TWS80500) and 1 ml of TRITON X-100 Supplement (TXS80100). Mix well and keep the suspension at about 40 - 50 °C until the lecithin dissolves completely (20–30 min). The dissolution is completed, when the medium is yellowish and slightly turbid, but exempt from any precipitate. Heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Warning!

Mix thoroughly before pouring!

### Prepared media

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Bottled media:                        | 100 ml: EUA30100, 500 ml: EUA30500 |
| Plated media in normal Petri-dishes:  | 55 mm: EUA50055, 90 mm: EUA50090   |
| Plated media in contact Petri-dishes: | 65 mm: EUA50065                    |
| Colour:                               | Yellowish, homogeneous turbid      |
| pH (25 °C):                           | 6,9 – 7,1                          |

**Direction:** Dispense the melted bottled media aseptically into sterile final containers.

**Warning!** Mix thoroughly before pouring! Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Casein peptone  | 15,6 |
| Soya peptone    | 5,0  |
| Glucose         | 5,5  |
| Sodium chloride | 4,0  |
| Sodium sulphite | 0,2  |
| L-Cysteine      | 0,7  |
| Lecithin        | 1,0  |
| Agar            | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>         | ATCC 25922             | Good   |                       |
| <i>Pseudomonas aeruginosa</i>   | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>    | ATCC 29213             | Good   |                       |
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** ISO 21148

### NEW PRODUCT

#### EUGON LT 100 BROTH BASE

A neutralising medium for the preparation and enrichment of test samples in the cosmetic industries.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: EUB20500, 5 kg: EUB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 32 g in one litre of distilled water. Add 5 ml of TWEEN 80 Supplement (TWS80500) and 1 ml of TRITON X-100 Supplement (TXS80100). Mix well and keep the suspension at about 40–50 °C until the lecithin dissolves completely (20–30 min). The dissolution is completed, when the medium is yellowish and slightly turbid, but exempt from any precipitate. Dispense into final containers. Sterilise by autoclaving at 121 °C for 15 minutes.

### Warning!

Mix thoroughly before use!

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: EUB30100, 500 ml: EUB30500 |
| Tubed media:   | 150 x 15 mm: EUB40010 (10 ml)      |
| Colour:        | Yellowish, homogeneous turbid      |
| pH (at 25 °C): | 6,9 – 7,1                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### Warning!

At the bottom of the containers some separation of TWEEN might be observed which has no effect on the quality of the medium. Shaking the containers it disappears.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Casein peptone  | 15,6 |
| Soya peptone    | 5,0  |
| Glucose         | 5,5  |
| Sodium chloride | 4,0  |
| Sodium sulphite | 0,2  |
| L-Cysteine      | 0,7  |
| Lecithin        | 1,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>         | ATCC 25922             | Good   |                       |
| <i>Pseudomonas aeruginosa</i>   | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>    | ATCC 29213             | Good   |                       |
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

References: ISO 21148

### FALKOW BROTH

See: Culture Media for Amino Acid Decomposition Studies (page 137)

### FluoroBio® BGLB

A selective and differential medium for the detection of coliforms by a fluorogenic procedure.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BBM20500, 5 kg: BBM25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BBM30100, 500 ml: BBM30500</b> |
| Tubed media:   | <b>150 x 15 mm: BBM40010 (10 ml)</b>      |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                      |        |
|----------------------|--------|
| Peptones             | 10,000 |
| Bacteriological bile | 20,000 |
| Lactose              | 10,000 |
| MUG                  | 0,100  |
| Brilliant green      | 0,0133 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, colour change to yellow, fluorescence at 366 nm |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good, with gas production, without colour change                           |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited  |                       |

References: APHA (1986) Standard Methods for the Examination of Water and Wastewater 15<sup>th</sup> ed.  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® CLED

A differential medium for the isolation and enumeration of micro-organisms from urine. Differentiation of *E. coli* colonies is possible by a fluorogenic procedure.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CLM20500, 5 kg: CLM25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CLM30100, 500 ml: CLM30500</b> |
| Plated media:  | <b>55 mm: CLM50055, 90 mm: CLM50090</b>   |
| Colour:        | <b>Turquoise green</b>                    |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 11,900 |
| L-Cystine        | 0,128  |
| Lactose          | 10,000 |
| MUG              | 0,100  |
| Bromothymol blue | 0,020  |
| Agar             | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, yellow colonies, fluorescence at 366 nm |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, blue colonies without swarming          |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, small yellow colonies                   |                       |

References: Mackey et al. (1966) Br. Med. J. 1: 1173.  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® EC

A selective and differential medium for the detection of coliforms by a fluorogenic procedure.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ECM20500, 5 kg: ECM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.



## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ECM30100, 500 ml: ECM30500</b> |
| Tubed media:   | <b>150 x 15 mm: ECM40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 22,9 |
| Bile salts      | 1,5  |
| Lactose         | 5,0  |
| Sodium chloride | 5,0  |
| MUG             | 0,1  |
| Buffers         | 5,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with intense gas production, fluorescence at 366 nm |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Good, with gas production                                 |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29213             | Inhibited   |                       |

**References:** Hajna and Perry (1943) Am. J. Public. Health. 33: 550.  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® ECD

A selective and differential medium for the detection of *Escherichia coli* by a fluorogenic procedure.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: EDM20500, 5 kg: EDM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **51 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: EDM30100, 500 ml: EDM30500</b> |
| Plated media:  | <b>55 mm: EDM50055, 90 mm: EDM50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 20,0 |
| Bile salts      | 1,5  |
| Tryptophan      | 1,0  |
| Lactose         | 5,0  |
| Sodium chloride | 5,0  |
| MUG             | 0,1  |
| Buffers         | 5,4  |
| Agar            | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, fluorescence at 366 nm |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good                         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                    |                       |

**References:** Hajna és Perry (1943) Am. J. Public. Health. 33: 550.  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® LSB

A selective enrichment medium for the detection of coliforms by a fluorogenic procedure.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LSM20500, 5 kg: LSM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LSM30100, 500 ml: LSM30500</b> |
| Tubed media:   | <b>150 x 15 mm: LSM40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                        |      |
|------------------------|------|
| Peptones               | 19,5 |
| Lactose                | 5,0  |
| Sodium chloride        | 5,0  |
| Sodium lauryl sulphate | 0,1  |
| MUG                    | 0,1  |
| Buffers                | 5,4  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, fluorescence at 366 nm |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production                      |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29213             | Inhibited   |                       |

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

## II. DEHYDRATED CULTURE MEDIA

### FluoroBio® MACCONKEY AGAR

A selective and differential medium for the detection of coliforms and enteric pathogens by a fluorogenic procedure.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MCM20500, 5 kg: MCM25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **52 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MCM30100, 500 ml: MCM30500</b> |
| Plated media:  | <b>55 mm: MCM50055, 90 mm: MCM50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,500 |
| Bile salts No.3 | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| MUG             | 0,100  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,001  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, violet-red colonies with precipitate halo, fluorescence at 366 nm |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming                              |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** MacConkey (1900) The Lancet  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® MACCONKEY BROTH

A selective and differential medium for the detection of coliforms by a fluorogenic procedure.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MNM20500, 5 kg: MNM25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MNM30100, 500 ml: MNM30500</b> |
| Tubed media:   | <b>150 x 15 mm: MNM40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Gelatin peptone      | 20,00 |
| Bacteriological bile | 5,00  |
| Lactose monohydrate  | 10,00 |
| MUG                  | 0,10  |
| Bromocresol purple   | 0,01  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, with gas production, colour change to yellow, fluorescence at 366 nm |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, without gas production and colour change                             |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited  |                       |

**References:** European Pharmacopoeia  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® VRBL

A lactose containing selective and differential medium for the detection and enumeration of coliforms by a fluorogenic procedure.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: VBM20500, 5 kg: VBM25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VBM30100, 500 ml: VBM30500</b> |
| Plated media:  | <b>55 mm: VBM50055, 90 mm: VBM50090</b>   |
| Colour:        | <b>Reddish purple</b>                     |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 10,000 |
| Bile salts      | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| MUG             | 0,100  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,002  |
| Agar            | 14,900 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo, fluorescence at 366 nm |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming                                |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** APHA (1978) Standard Method for the Examination of Dairy Product. 14<sup>th</sup> ed. Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### GBS AGAR BASE

A differential medium for the isolation and detection of Group B streptococci.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: GBS20500, 5 kg: GBS25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,5 (approx.) at 25 °C          |

**Direction:** Suspend 47 g in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile inactivated horse serum (i.e. serum held at 56 °C for 30 minutes). Mix well before pouring.

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: GBS30100, 500 ml: GBS30500 |
| Plated media:  | 55 mm: GBS50055, 90 mm: GBS50090   |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 7,4 – 7,6                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                |    |
|----------------|----|
| Peptones       | 23 |
| Starch soluble | 55 |
| Buffers        | 7  |
| Agar           | 12 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|---------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Streptococcus agalactiae</i> | ATCC 13813             | Good, orange – red pigmented colonies |                       |
| <i>Enterococcus faecalis</i>    | ATCC 29212             | Good, without pigmentation            |                       |

**References:** Islam (1977) The Lancet: 256.

### GC AGAR BASE

A highly nutritious medium for the isolation and cultivation of fastidious micro-organisms especially *Neisseria* and *Haemophilus* spp.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: GCA20500, 5 kg: GCA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction for Thayer Martin Agar:** Suspend 19,5 g in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 35 ml of sterile defibrinated blood and "chocolate" by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of one vial of Growth Factor Mixture Hydration Fluid with 5 ml of sterile distilled water and add aseptically to the Growth Factor Mixture (GFM80005). Mix well and add aseptically to the medium. Mix well before pouring.

**Direction for Selective Thayer Martin Agar:** Dissolve the contents of one vial of GC Selective Supplement, VCN (VCN80004) or GC Selective Supplement, VCNT (VCT80004) with 4 ml of sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

### Prepared media

|   |  |
|---|--|
| Bottled media:                              | 100 ml: GCA30100, 500 ml: GCA30500     |
| Plated Thayer-Martin Agar:                  | 55 mm: GCA50055-01, 90 mm: GCA50090-01 |
| Plated Thayer-Martin Agar, Selective, VCN:  | 55 mm: GCA50055-02, 90 mm: GCA50090-02 |
| Plated Thayer-Martin Agar, Selective, VCNT: | 55 mm: GCA50055-03, 90 mm: GCA50090-03 |
| Colour of bottled media:                    | Yellowish                              |
| Colour of plated media:                     | Chocolate brown                        |
| pH (at 25 °C):                              | 7,1 – 7,3                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 15 |
| Sodium chloride                         | 5  |
| Starch soluble                          | 1  |
| Buffers                                 | 5  |
| Agar                                    | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Haemophilus influenzae</i> | ATCC 49766             | Good                                   |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited (in case of selective media) |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited (in case of selective media) |                       |

**References:** Thayer and Martin (1966) Public Health Rep. 81: 559.

## II. DEHYDRATED CULTURE MEDIA

### GIOLITTI-CANTONI BROTH BASE

A selective enrichment medium for the selective cultivation of *Staphylococcus aureus*.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: GCB20500, 5 kg: GCB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 27 g in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 30 drops (1,5 ml) of Potassium Tellurite Solution, Sterile (PTS80030). Mix well and dispense aseptically into sterile final containers.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: GCB30100, 500 ml: GCB30500 |
| Tubed media:   | 150 x 15 mm: GCB40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 6,9 – 7,1                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                  |      |
|------------------|------|
| Peptones         | 19,8 |
| Mannitol         | 20,0 |
| Sodium chloride  | 5,0  |
| Sodium pyruvate  | 3,0  |
| Glycine          | 1,2  |
| Lithium chloride | 5,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                       | Incubation time: 48 h |
|------------------------------|------------------------|------------------------------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, colour change to black |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                    |                       |

**References:** Giolitti and Cantoni (1966) J. Appl. Bact. 29: 395.

### GLUTAMATE BROTH BASE, MODIFIED

A synthetic differential medium for the enumeration of coliforms in water.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MMG20500, 5 kg: MMG25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Dissolve 2,5 g of ammonium chloride and 6,4 g of sodium glutamate in one litre of distilled water. Add 11,4 g of dehydrated medium and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 10 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MMG30100, 500 ml: MMG30500 |
| Tubed media:   | 100 x 12 mm: MMG40010 (10 ml)      |
| Colour:        | Purple                             |
| pH (at 25 °C): | 7,1 – 7,3                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Lactose            | 10,000 |
| Amino acids        | 0,064  |
| Sodium formate     | 0,250  |
| Minerals           | 0,111  |
| Vitamins           | 0,003  |
| Bromocresol purple | 0,020  |
| Buffers            | 0,950  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production and colour change     |                       |

**References:** PHLS (1968) J. Hyg. Camb. 66: 67-82.

### GN BROTH

A selective medium for the enrichment of *Salmonella* and *Shigella* spp.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: GNB20500, 5 kg: GNB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 39 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: GNB30100, 500 ml: GNB30500 |
| Tubed media:   | 150 x 15 mm: GNB40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 6,9 – 7,1                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                     |      |
|---------------------|------|
| Peptones            | 20,0 |
| Mannitol            | 2,0  |
| Glucose             | 1,0  |
| Sodium chloride     | 5,0  |
| Sodium citrate      | 5,0  |
| Sodium deoxycholate | 0,5  |
| Buffers             | 5,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Shigella sonnei</i>        | ATCC 25931             | Good      |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited |                       |

**References:** Hajna (1955) Public Health Lab. 13: 59.

### GSP AGAR BASE

A selective and differential medium for the detection and differentiation of *Pseudomonas* and *Aeromonas* spp.

### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: GSP20500, 5 kg: GSP25000 |
| Colour:      | Pinkish                         |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 23 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool quickly to 50 °C and add aseptically the contents of one vial of GSP Selective Supplement (GSU80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: GSP30100, 500 ml: GSP30500 |
| Plated media:  | 55 mm: GSP50055, 90 mm: GSP50090   |
| Colour:        | Red                                |
| pH (25 °C):    | 7,3 – 7,5                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Starch soluble     | 20,00 |
| Sodium glutamate   | 10,00 |
| Magnesium sulphate | 0,50  |
| Phenol red         | 0,36  |
| Buffers            | 2,00  |
| Agar               | 13,10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------|-----------------------|
| <i>Aeromonas hydrophila</i>   | ATCC 7966              | Good, yellow colonies |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, red colonies    |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited             |                       |

**References:** Kielwen et al. (1969) Arch. f. Lebensmittelhyg. 20: 131.

### HAEMOPHILUS TEST AGAR BASE

A standard medium for the susceptibility testing of *Haemophilus influenzae*.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: HTM20500, 5 kg: HTM25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,3 (approx.) at 25 °C          |

**Direction:** Suspend 21,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Haemophilus Supplement (HTS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: HTM30100, 500 ml: HTM30500 |
| Plated media:  | 55 mm: HTM50055, 90 mm: HTM50090   |
| Colour:        | Yellowish                          |
| pH (25 °C):    | 7,2 – 7,4                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                        |    |
|------------------------|----|
| Mueller-Hinton II Agar | 38 |
| Yeast extract          | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Haemophilus influenzae</i> | ATCC 49766             | Good   |                       |

**References:** Jorgensen et al. (1987) J. Clin. Micro. 25: 2105.

### HEKTOEN ENTERIC AGAR

A selective and differential medium for the isolation of enteric micro-organisms, especially *Salmonella* and some *Shigella* spp.

### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: HEA20500, 5 kg: HEA25000 |
| Colour:      | Beige                           |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 7,5 (approx.) at 25 °C          |

**Direction:** Suspend 77 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: HEA30100, 500 ml: HEA30500</b> |
| Plated media:  | <b>55 mm: HEA50055, 90 mm: HEA50090</b>   |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 15,300 |
| Bile salts          | 9,000  |
| Lactose             | 12,000 |
| Sucrose             | 12,000 |
| Salicin             | 2,000  |
| Sodium chloride     | 5,000  |
| Sodium thiosulphate | 5,000  |
| Ferric citrate      | 1,500  |
| Acid fuchsin        | 0,100  |
| Bromothymol blue    | 0,065  |
| Agar                | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, salmon coloured colonies  |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, greenish-blue colonies with black centre |                       |
| <i>Shigella sonnei</i>        | ATCC 25931             | Good, greenish-blue colonies                   |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                                      |                       |

**References:** King and Metzger (1968) Appl. Microbiol. 16: 577.

### HUGH-LEIFSON OF MEDIUM BASE

A semi-solid medium base for the carbohydrate decomposition studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SUG20500, 5 kg: SUG25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **12 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add the filter sterilised sugar (10 g/l) solution to be examined to the medium. Dispense aseptically into sterile test tubes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SUG30100, 500 ml: SUG30500</b> |
| Tubed media:   | <b>100 x 12 mm: SUG40004 (4 ml)</b>       |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 3,00 |
| Sodium chloride    | 5,00 |
| Bromocresol purple | 0,03 |
| Buffers            | 1,00 |
| Agar               | 3,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth with 10 g/l lactose        | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Positive: Colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Negative: No colour change        |                       |

**References:** Hugh and Leifson (1953) J. Bact. 66: 24.

### INDOLE MOTILITY ORNITHINE (IMO) MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of the indole production, motility and the ornithine decarboxylase activity.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: IMO20500, 5 kg: IMO25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **26 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: IMO30100, 500 ml: IMO30500</b> |
| Tubed media:   | <b>100 x 12 mm: IMO40002 (2 ml)</b>       |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>6,5 – 6,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 16,00 |
| Glucose            | 1,00  |
| L-Ornithine        | 5,00  |
| Bromocresol purple | 0,03  |
| Buffers            | 1,00  |
| Agar               | 3,00  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions |          |        | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|----------|--------|-----------------------|
|                               |                        | Ornithine | Motility | Indole |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | +         | +        | +      |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | +         | +        | –      |                       |
| <i>Klebsiella pneumoniae</i>  | ATCC 13883             | –         | –        | –      |                       |

**References:** Ederer and Clark (1970) Appl. Microbiol. 2: 849.

## II. DEHYDRATED CULTURE MEDIA

### IRON SULPHITE AGAR

A differential medium for the detection of thermophilic anaerobes, producing hydrogen sulphite.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: ISA20500, 5 kg: ISA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ISA30100, 500 ml: ISA30500</b> |
| Tubed media:   | <b>150 x 15 mm: ISA40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                         |    |
|-------------------------|----|
| Peptones                | 25 |
| Sodium metabisulphite   | 1  |
| Ferric ammonium citrate | 1  |
| Agar                    | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, colour change to black (under anaerobic conditions) |                       |

**References:** ISO 15213

### K AGAR BASE

A selective medium for the detection of *Alicyclobacillus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KSA20500, 5 kg: KSA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **12 g** in 500 ml of distilled water. Add **0,5 ml of TWEEN 80 Supplement (TWS80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly to 50 °C and add aseptically **1 vial of K Agar Malic Acid Solution (KMS80005)**. Mix well before pouring.

#### Warning!

Once acidified with malic acid, the medium should not be reheated.

#### Prepared media

|                              |   |
|------------------------------|---|
| Bottled media:               | <b>100 ml: KSA30100, 500 ml: KSA30500</b> |
| Plated media:                | <b>55 mm: KSA50055, 90 mm: KSA50090</b>   |
| Colour:                      | <b>Yellowish</b>                          |
| pH (25 °C) of bottled media: | <b>6,6 – 7,0</b>                          |
| pH (25 °C) of plated media:  | <b>3,6 – 3,8</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 8  |
| Glucose  | 1  |
| Agar     | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                            | Incubation temp: 37 °C | Growth | Incubation time: 72 h |
|---|------------------------|--------|-----------------------|
| <i>Alicyclobacillus acidoterrestris</i> | ATCC 49028             | Good   |                       |

### KANAMYCIN ESCULIN AZIDE AGAR

A selective and differential medium for the isolation of enterococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KEA20500, 5 kg: KEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **48 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive. No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KEA30100, 500 ml: KEA30500</b> |
| Plated media:  | <b>55 mm: KEA50055, 90 mm: KEA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 25,30 |
| Sodium chloride         | 5,00  |
| Sodium citrate          | 1,00  |
| Ferric ammonium citrate | 0,50  |
| Sodium azide            | 0,15  |
| Esculin                 | 1,00  |
| Kanamycin               | 0,02  |
| Agar                    | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                               | Incubation time: 24 h |
|------------------------------|------------------------|--------------------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, blackening around the colonies |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                            |                       |

**References:** Mossel et al. (1978) Arch. Lebensmittel-hyg. 29: 121.

## II. DEHYDRATED CULTURE MEDIA

### KANAMYCIN ESCULIN AZIDE BROTH

A selective and differential medium for the isolation of enterococci.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: KEB20500, 5 kg: KEB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,0 (approx.) at 25 °C          |

**Direction:** Suspend 33 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: KEB30100, 500 ml: KEB30500 |
| Tubed media:   | 150 x 15 mm: KEB40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 6,9 – 7,1                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 25,30 |
| Sodium chloride         | 5,00  |
| Sodium citrate          | 1,00  |
| Ferric ammonium citrate | 0,50  |
| Sodium azide            | 0,15  |
| Esculin                 | 1,00  |
| Kanamycin               | 0,02  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|------------------------------|------------------------|------------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, colour change to black |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                    |                       |

**References:** Mossel et al. (1978) Arch. Lebensmittel-hyg. 29: 121.

### KF STREPTOCOCCUS AGAR BASE

A selective medium for the isolation and enumeration of enterococci.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: KFA20500, 5 kg: KFA25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend 36 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes. Cool to 50 °C and add aseptically 10 drops (0,5 ml) TTC Solution, Sterile (TTC80030). Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: KFA30100, 500 ml: KFA30500 |
| Plated media:  | 55 mm: KFA50055, 90 mm: KFA50090   |
| Colour:        | Purple                             |
| pH (25 °C):    | 7,1 – 7,3                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Peptones                | 20,600 |
| Maltose                 | 20,000 |
| Lactose                 | 1,000  |
| Sodium chloride         | 5,000  |
| Sodium azide            | 0,400  |
| Bromocresol purple      | 0,015  |
| Sodium glycerophosphate | 10,000 |
| Agar                    | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                  | Incubation time: 48 h |
|------------------------------|------------------------|-------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 25922             | Good, dark red colonies |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited               |                       |

**References:** Kenner et al. (1961) Appl. Microbiol. 9: 15.

### KIMMIG AGAR BASE

A non-selective medium for the cultivation, isolation, identification and strain preservation of fungi.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: KIM20500, 5 kg: KIM25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 6,5 (approx.) at 25 °C          |

**Direction:** Suspend 50 g in one litre of distilled water. Add 5 ml of Glycerol Supplement (GLC80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

#### Prepared media

|                |                                     |
|----------------|-------------------------------------|
| Bottled media: | 100 ml: KIM30100, 500 ml: KIM30500  |
| Plated media:  | 55 mm: KIM50055, 90 mm: KIM50090    |
| Tubed media:   | 100 x 15 mm: KIM40005 (5 ml, slant) |
| Colour:        | Yellowish                           |
| pH (25 °C):    | 6,4 – 6,6                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 15 |
| Glucose         | 19 |
| Sodium chloride | 1  |
| Agar            | 15 |



## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth | Incubation time: 48 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good   |                       |

**References:** Kimmig and Rieth (1993) *Arzneimittelforsch* 3: 267.

### KING A AGAR BASE, USP

A differential medium for the detection of *Pseudomonas aeruginosa* on the basis of pigment production according to USP. KING A agar enhances the production of pyocyanin and inhibits the formation of fluorescein.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KAA20500, 5 kg: KAA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **44 g** in one litre of distilled water. Add **10 ml of Glycerol supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KAA30100, 500 ml: KAA30500</b> |
| Tubed media:   | <b>100 x15 mm: KAA40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 19,6 |
| Potassium sulphate | 10,0 |
| Magnesium chloride | 1,4  |
| Agar               | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, yellow – green pigmentation without fluorescence at 366 nm |                       |

**References:** King et al. (1954) *J. Lab. and Clin. Med.* 44: 301.  
United States Pharmacopoeia

### KING B AGAR BASE, USP

A differential medium for the detection of *Pseudomonas aeruginosa* on the basis of pigment production according to USP. KING B agar enhances the production of fluorescein and inhibits the formation of pyocyanin.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KAB20500, 5 kg: KAB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water. Add **10 ml of Glycerol supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KAB30100, 500 ml: KAB30500</b> |
| Tubed media:   | <b>100 x15 mm: KAB40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 20,0 |
| Magnesium sulphate | 1,5  |
| Buffers            | 1,5  |
| Agar               | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, yellow – green pigmentation, fluorescence at 366 nm |                       |

**References:** King et al. (1954) *J. Lab. and Clin. Med.* 44: 301.  
United States Pharmacopoeia

### KLIGLER IRON AGAR

A differential medium for the differentiation of bacteria on the basis of carbohydrate fermentation and hydrogen sulphide production.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KIA20500, 5 kg: KIA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **56 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position to form slants with deep butt.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KIA30100, 500 ml: KIA30500</b>                 |
| Tubed media:   | <b>100 x 12 mm: KIA40003 (3 ml, slant with deep butt)</b> |
| Colour:        | <b>Onion red</b>  |
| pH (at 25 °C): | <b>7,3 – 7,5</b>  |

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions |        |     |                  | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|--------|-----|------------------|-----------------------|
|                               |                        | Slant     | Butt   | Gas | H <sub>2</sub> S |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | yellow    | yellow | +   | –                |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | red       | yellow | +   | +                |                       |
| <i>Shigella sonnei</i>        | ATCC 25931             | red       | yellow | –   | –                |                       |

**References:** Kligler (1917) Am. J. Pub. Hlth. 7: 1042.  
ISO 13737

### KLIMMER AGAR

A selective medium for the detection and enumeration of coliforms.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: KLA20500, 5 kg: KLA25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **46 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KLA30100, 500 ml: KLA30500</b> |
| Plated media:  | <b>55 mm: KLA50055, 90 mm: KLA50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                  |       |
|------------------|-------|
| Peptones         | 15,20 |
| Lactose          | 12,00 |
| Sodium chloride  | 3,60  |
| Acriflavine      | 0,06  |
| Bromothymol blue | 0,20  |
| Agar             | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, yellow colonies |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, green colonies  |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited             |                       |

### KOSER CITRATE BROTH

A differential medium for the differentiation of bacteria on the basis of citrate utilisation.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: KSB20500, 5 kg: KSB25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous powder</b>              |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **6 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: KSB30100, 500 ml: KSB30500</b> |
| Tubed media:   | <b>100 x 12 mm: KSB40003 (3 ml)</b>       |
| Colour:        | <b>Pale pink</b>                          |
| pH (at 25 °C): | <b>6,6 – 6,8</b>                          |

**Direction:** Dispense the bottled media aseptically into test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Sodium citrate     | 3,000 |
| Magnesium sulphate | 0,200 |
| Phenol red         | 0,015 |
| Buffers            | 2,800 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                          | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------------------|-----------------------|
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Positive, colour change to red  |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Negative, without colour change |                       |

**References:** Koser (1923) J. Bacteriol. 8: 493.

### LACTOSE (1%) PHENOL RED BROTH

A differential medium for the cultivation and presumptive identification of coliforms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LFB20500, 5 kg: LFB25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: LFB30100, 500 ml: LFB30500</b>                                    |
| Tubed media:   | <b>150 x 15 mm: LFB40010 (10 ml)</b><br><b>100 x 15 mm: LFB40005 ( 5 ml)</b> |
| Colour:        | <b>Red</b>   |
| pH (at 25 °C): | <b>7,1 – 7,3</b>   |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                 |       |
|-----------------|-------|
| Peptones        | 10,00 |
| Lactose         | 10,00 |
| Sodium chloride | 5,00  |
| Phenol red      | 0,01  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production and colour change     |                       |

**References:** Murray et al. (1995) Manual of Clinical Microbiology, 6<sup>th</sup> ed.

### LACTOSE BROTH, PH EUR

A differential medium for the cultivation and presumptive identification of coliforms according to PH EUR (Broth Medium D).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LAB20500, 5 kg: LAB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **13 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121°C for 15 minutes. Cool quickly!

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LAB30100, 500 ml: LAB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LAB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                     |   |
|---------------------|---|
| Gelatin peptone     | 5 |
| Beef extract        | 3 |
| Lactose monohydrate | 5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production    |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production |                       |

**References:** European Pharmacopoeia

### LACTOSE PEPTONE BROTH, DEV

A differential medium for the cultivation and enumeration of coliforms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LPB20500, 5 kg: LPB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121°C for 15 minutes. Cool quickly!

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LPB30100, 500 ml: LPB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LPB40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 20,00 |
| Lactose            | 10,00 |
| Sodium chloride    | 5,00  |
| Bromocresol purple | 0,02  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production and colour change     |                       |

**References:** DEV (1963) Bundesgesetzbl., Teil I: 2613444.

### LACTOSE SULPHITE BROTH BASE, PH EUR

A differential medium for the determination of H<sub>2</sub>S production by *Clostridium perfringens* according to PH EUR (Broth Medium R).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LSU20500, 5 kg: LSU25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **10,15 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030)** and **10 drops (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030)**. Mix well and dispense aseptically into sterile test tubes fitted with Durham tube.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LSU30100, 500 ml: LSU30500</b> |
| Tubed media:   | <b>150 x 15 mm: LSU40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                     |      |
|---------------------|------|
| Casein pepton       | 5,0  |
| Yeast extract       | 2,5  |
| L-Cysteine          | 0,3  |
| Lactose monohydrate | 10,0 |
| Sodium chloride     | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2 – 8 °C.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, colour change to black (under anaerobic conditions) |                       |

**References:** European Pharmacopoeia

### LAURIA-BERTANI BROTH

A non-selective medium for molecular genetic studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LBB20500, 5 kg: LBB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LBB30100, 500 ml: LBB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LBB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Casein pepton   | 10 |
| Yeast extract   | 5  |
| Sodium chloride | 10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

### LAURYL SULPHATE BROTH

A selective enrichment medium for the detection of coliforms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LSB20500, 5 kg: LSB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LSB30100, 500 ml: LSB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LSB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                        |      |
|------------------------|------|
| Tryptose               | 19,5 |
| Lactose                | 5,0  |
| Sodium chloride        | 5,0  |
| Sodium lauryl sulphate | 0,1  |
| Buffers                | 5,4  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production    |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29213             | Inhibited                    |                       |

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods



### LAURYL TRYPTOSE MANNITOL BROTH

A selective enrichment medium for the detection and enumeration of coliforms according to ISO standards.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LTM20500, 5 kg: LTM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LTM30100, 500 ml: LTM30500</b> |
| Tubed media:   | <b>150 x 15 mm: LTM40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                        |      |
|------------------------|------|
| Tryptose               | 20,0 |
| L-Tryptophan           | 0,2  |
| Mannitol               | 5,0  |
| Sodium chloride        | 5,0  |
| Sodium lauryl sulphate | 0,1  |
| Buffers                | 5,7  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, with gas production, indole positive    |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, without gas production, indole negative |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29213             | Inhibited                                     |                       |

**References:** ISO 4831; ISO 7251

### LEGIONELLA (CYE) AGAR BASE

A selective medium for the isolation of Legionella spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CYE20500, 5 kg: CYE25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction for 100 ml agars:** Suspend **2,5 g** in 95 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)** or **Legionella BCYE Growth Supplement without Cysteine (LWC80005-01)**. Shake well and add to the medium base. Mix well before pouring.

**Direction for 100 ml selective agars:** Suspend **2,5 g** in 90 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)**. Shake well and add to the medium base. Add 5 ml sterile distilled water to **one vial of Legionella Selective Supplement, BMPA (BMP80005-01)** or **Legionella selective supplement, GVPC (GVP80005-01)** or **Legionella selective supplement, MWY (MWY80005-01)**. Shake well and add to the medium base. Mix well before pouring.

**Direction for 500 ml agars:** Suspend **12,5 g** in 490 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)** or **Legionella BCYE Growth Supplement without Cysteine (LWC80005-02)**. Shake well and add to the medium base. Repeat the wash-out with 5 ml sterile distilled water one more time.

Mix well before pouring.

**Direction for 500 ml selective agars:** Suspend **12,5 g** in 480 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)**. Shake well and add to the medium base. Repeat the wash-out with 5 ml sterile distilled water one more time. Add 5 ml sterile distilled water to **one vial of Legionella Selective Supplement, BMPA (BMP80005-02)** or **Legionella selective supplement, GVPC (GVP80005-02)** or **Legionella selective supplement, MWY (MWY80005-02)**. Shake well and add to the medium base. Repeat the wash-out with 5 ml sterile distilled water one more time.

Mix well before pouring.

### Prepared media

|   |   |
|---|---|
| Bottled media:                                | <b>100 ml: CYE30100, 500 ml: CYE30500</b>     |
| Plated Legionella BCYE agar with cysteine:    | <b>55 mm: CYE50055-01, 90 mm: CYE50090-01</b> |
| Plated Legionella BCYE agar without cysteine: | <b>55 mm: CYE50055-02, 90 mm: CYE50090-02</b> |
| Plated Legionella BCYE agar, BMPA:            | <b>55 mm: CYE50055-03, 90 mm: CYE50090-03</b> |
| Plated Legionella BCYE agar, MWY:             | <b>55 mm: CYE50055-04, 90 mm: CYE50090-04</b> |
| Plated Legionella BCYE agar, GVPC:            | <b>55 mm: CYE50055-05, 90 mm: CYE50090-05</b> |
| Colour:                                       | <b>Black</b>                                  |
| pH (25 °C):                                   | <b>6,8 – 7,0</b>                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|               |    |
|---------------|----|
| Yeast extract | 10 |
| Charcoal      | 2  |
| Agar          | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Legionella pneumophila</i> | ATCC 33152             | Good, greyish-white colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                    |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                    |                       |

**References:** Feeley et al. (1979) J. Clin. Microb. 10: 437.

Dennis et al. (1984) Am. Soc. Microbiol. Pp. 294.

### LETHEN AGAR BASE

A highly nutritious medium that neutralizes quaternary ammonium compounds, for sampling of environmental surfaces that have been treated with disinfectants.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LTA20500, 5 kg: LTA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **58 g** in one litre of distilled water. Add **5 ml of TWEEN 80 Supplement (TWS80100)**. Mix well and keep the suspension at about 50 °C until the lecithin dissolved completely (20–30 min). The dissolution is completed, when the medium is Yellowish and slightly turbid, but exempt from any precipitate. Heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                     |   |
|---------------------|---|
| Bottled media:      | <b>100 ml: LTA30100, 500 ml: LTA30500</b> |
| Plated media:       | <b>55 mm: LTA50055, 90 mm: LTA50090</b>   |
| Contact Petri-dish: | <b>LTA50065</b>                           |
| Colour:             | <b>Yellowish, homogeneous turbid</b>      |
| pH (25 °C):         | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                   |      |
|-------------------|------|
| Peptones          | 32,2 |
| Sodium chloride   | 5,0  |
| Sodium bisulphite | 0,1  |
| Lecithin          | 0,7  |
| Agar              | 20,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** FDA (1992) Microbiological Methods for Cosmetics. Chapter 23.

## LETHEN BROTH BASE

A highly nutritious medium that neutralizes quaternary ammonium compounds, for sampling of environmental surfaces that have been treated with disinfectants.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LTB20500, 5 kg: LTB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38 g** in one litre of distilled water. Add **5 ml of TWEEN 80 Supplement (TWS80100)**. Mix well and keep the suspension at about 50 °C until the lecithin dissolved completely (20–30 min). The dissolution is completed, when the medium is yellowish and slightly turbid, but exempt from any precipitate. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LTB30100, 500 ml: LTB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LTB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                   |      |
|-------------------|------|
| Peptones          | 32,2 |
| Sodium chloride   | 5,0  |
| Sodium bisulphite | 0,1  |
| Lecithin          | 0,7  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** FDA (1992) Microbiological Methods for Cosmetics. Chapter 23.

## LEUCONOSTOC AGAR

A differential medium for the cultivation of *Leuconostoc* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEA20500, 5 kg: LEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **184 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LEA30100, 500 ml: LEA30500</b> |
| Plated media:  | <b>55 mm: LEA50055, 90 mm: LEA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>5,9 – 6,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 15,8  |
| Sucrose            | 150,0 |
| Sodium chloride    | 1,0   |
| Magnesium sulphate | 0,2   |
| Buffers            | 2,0   |
| Agar               | 15,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                     | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|----------------------------------|------------------------|--------|-----------------------|
| <i>Leuconostoc mesenteroides</i> | ATCC 14935             | Good   |                       |

**References:** Atlas and Parks (1993) Handbook of Microbiological Media

## II. DEHYDRATED CULTURE MEDIA

### LINDEN-GRAIN BROTH

A sterility test medium for the cultivation of environmental micro-organisms, e.g. from beverage bottles.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LGB20500, 5 kg: LGB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>4,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **29,5 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LGB30100, 500 ml: LGB30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>4,1 – 4,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers.

#### FORMULA in g/l

|                    |      |
|--------------------|------|
| Peptones           | 5,5  |
| Glucose            | 20,0 |
| Ammonium sulphate  | 2,0  |
| Magnesium sulphate | 1,0  |
| Buffers            | 1,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |

### LISTERIA ENRICHMENT BROTH

A selective enrichment medium for the detection of *Listeria monocytogenes*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEN20500, 5 kg: LEN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LEN30100, 500 ml: LEN30500</b> |
| Tubed media:   | <b>150 x 15 mm: LEN40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 26,000 |
| Glucose         | 2,500  |
| Sodium chloride | 5,000  |
| Cycloheximide   | 0,050  |
| Nalidixic acid  | 0,040  |
| Acriflavine     | 0,015  |
| Buffers         | 2,400  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good      |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited |                       |

**References:** Lovett et al. (1987) J. Food Protection 50: 188.

### LISTERIA ENRICHMENT BROTH BASE, UVM – FRASER

A selective enrichment medium for the isolation of *Listeria* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEF20500, 5 kg: LEF25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **27,5 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of supplements below** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water.

- for **Fraser Broth:** Listeria Selective Supplement, Fraser (LSF80004)
  - for **Half Fraser Broth:** Listeria Selective Supplement, Half Fraser (LSH80004)
  - for **UVM I Broth:** Listeria Selective Supplement, UVM I (LU180004)
  - for **UVM II Broth:** Listeria Selective Supplement, UVM II (LU280004)
- Mix well. Dispense aseptically into sterile final containers.

#### Prepared media

|   |   |
|---|---|
| Bottled media:                                | <b>100 ml: LEF30100, 500 ml: LEF30500</b> |
| Tubed Listeria Enrichment Broth, Fraser:      | <b>150 x 15 mm: LEF40010-TF (10 ml)</b>   |
| Tubed Listeria Enrichment Broth, Half Fraser: | <b>150 x 15 mm: LEF40010-HF (10 ml)</b>   |
| Tubed Listeria Enrichment Broth, UVM I:       | <b>150 x 15 mm: LEF40010-U1 (10 ml)</b>   |
| Tubed Listeria Enrichment Broth, UVM II:      | <b>150 x 15 mm: LEF40010-U2 (10 ml)</b>   |
| Colour:                                       | <b>Yellowish</b>                          |
| pH (at 25 °C):                                | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                                |    |
|--------------------------------|----|
| Proteose peptone               | 5  |
| Tryptone                       | 5  |
| Beef extract                   | 5  |
| Yeast extract                  | 5  |
| Sodium chloride                | 20 |
| Lithium chloride               | 3  |
| Esculin                        | 1  |
| Sodium phosphate, dibasic      | 10 |
| Potassium phosphate, monobasic | 1  |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, in Fraser broths colour change to black |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                                     |                       |

**References:** Fraser and Sperber (1988) J. Food Protect. 51: 762.

ISO 11290-1: 1997

APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed.

### LISTERIA ENRICHMENT BROTH, BUFFERED

A selective enrichment medium for the detection of *Listeria monocytogenes*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEB20500, 5 kg: LEB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **47 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LEB30100, 500 ml: LEB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LEB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 26,000 |
| Glucose         | 2,500  |
| Sodium chloride | 5,000  |
| Cycloheximide   | 0,050  |
| Nalidixic acid  | 0,040  |
| Acriflavine     | 0,015  |
| Buffers         | 13,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good      |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited |                       |

**References:** Lovett et al. (1987) J. Food Protection 50: 188.

### NEW PRODUCT

### LISTERIA ENRICHMENT BROTH, FRASER

A selective enrichment medium for the isolation of *Listeria monocytogenes*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEF20500-TF, 5 kg: LEF25000-TF</b> |
| Colour:                | <b>Yellowish</b>                             |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>        |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>                |

**Direction:** Suspend **55 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LEF30100-TF, 500 ml: LEF30500-TF</b> |
| Tubed media:   | <b>150 x 15 mm: LEF40010-TF (10 ml)</b>         |
| Colour:        | <b>Yellowish</b>                                |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                                |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|   |        |
|---|--------|
| Proteose peptone                        | 5,000  |
| Tryptone                                | 5,000  |
| Beef extract                            | 5,000  |
| Yeast extract                           | 5,000  |
| Sodium chloride                         | 20,000 |
| Lithium chloride                        | 3,000  |
| Ferric ammonium citrate                 | 0,500  |
| Esculin                                 | 1,000  |
| Acriflavine                             | 0,025  |
| Nalidixic acid                          | 0,020  |
| Sodium hydrogen phosphate, dibasic      | 9,500  |
| Potassium hydrogen phosphate, monobasic | 1,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, colour change to black |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                    |                       |

**References:** Fraser and Sperber (1988) J. Food Protect. 51: 762.

ISO 11290-1: 1997

APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed.

### NEW PRODUCT

### LISTERIA ENRICHMENT BROTH, HALF-FRASER

A selective enrichment medium for the isolation of *Listeria monocytogenes*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LEF20500-HF, 5 kg: LEF25000-HF</b> |
| Colour:                | <b>Yellowish</b>                             |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>        |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>                |



## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **55 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LEF30100-HF, 500 ml: LEF30500-HF</b> |
| Tubed media:   | <b>150 x 15 mm: LEF40010-HF (10 ml)</b>         |
| Colour:        | <b>Yellowish</b>                                |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                                |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|   |         |
|---|---------|
| Proteose peptone                        | 5,0000  |
| Tryptone                                | 5,0000  |
| Beef extract                            | 5,0000  |
| Yeast extract                           | 5,0000  |
| Sodium chloride                         | 20,0000 |
| Lithium chloride                        | 3,0000  |
| Ferric ammonium citrate                 | 0,5000  |
| Esculin                                 | 1,0000  |
| Acriflavine                             | 0,0125  |
| Nalidixic acid                          | 0,0100  |
| Sodium hydrogen phosphate, dibasic      | 9,5000  |
| Potassium hydrogen phosphate, monobasic | 1,0000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                       | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, colour change to black |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                    |                       |

**References:** Fraser and Sperber (1988) J. Food Protect. 51: 762.

ISO 11290-1: 1997

APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed.

### LISTERIA SELECTIVE AGAR BASE, OXFORD

A selective and differential medium for the detection of *Listeria monocytogenes*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LA020500, 5 kg: LA025000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **29,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Oxford (LS080004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LA030100, 500 ml: LA030500</b> |
| Plated media:  | <b>55 mm: LA050055, 90 mm: LA050090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |      |
|---|------|
| Nutrient substrate (peptones, extracts) | 23,5 |
| Starch soluble                          | 1,0  |
| Lithium chloride                        | 15,0 |
| Sodium chloride                         | 5,0  |
| Ferric ammonium citrate                 | 0,5  |
| Esculin                                 | 1,0  |
| Agar                                    | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth               | Incubation time: 48 h |
|-------------------------------|------------------------|----------------------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, black colonies |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited            |                       |

**References:** Curtis et al. (1989) Letters in Appl. Microbiol. 8: 95.

### LISTERIA SELECTIVE AGAR BASE, PALCAM

A selective and differential medium for the detection of *Listeria monocytogenes*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LAP20500, 5 kg: LAP25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Palcam (LSP80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LAP30100, 500 ml: LAP30500</b> |
| Plated media:  | <b>55 mm: LAP50055, 90 mm: LAP50090</b>   |
| Colour:        | <b>Orange</b>                             |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |       |
|---|-------|
| Nutrient substrate (peptones, extracts) | 26,00 |
| Mannitol                                | 10,00 |
| Starch soluble                          | 1,00  |
| Glucose                                 | 0,50  |
| Lithium chloride                        | 15,00 |
| Sodium chloride                         | 5,00  |
| Ferric ammonium citrate                 | 0,60  |
| Esculin                                 | 0,80  |
| Phenol red                              | 0,08  |
| Agar                                    | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                       | Incubation time: 48 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good, brown – black colonies with black halo |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Inhibited                                    |                       |

**References:** van Netten et al. (1989) Int. J. Food Micro. 8: 299.

### LIVER BROTH

An enrichment medium for the cultivation of anaerobe bacteria.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LVB20500, 5 kg: LVB25000</b> |
| Colour:                | <b>Brownish</b>                        |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **112 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final container and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LVB30100, 500 ml: LVB30500</b> |
| Tubed media:   | <b>150 x 15 mm: LVB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish brown</b>                    |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                |     |
|----------------|-----|
| Liver extract  | 100 |
| Peptones       | 10  |
| Starch soluble | 1   |
| Buffers        | 1   |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed.

### LOEFFLER MEDIUM BASE

A non-selective medium for the cultivation and isolation of *Corynebacterium* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LOE20500, 5 kg: LOE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **26 g** in 250 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add **750 ml of sterile bovine serum**. Mix thoroughly and dispense into sterile test tubes. Inspissate for serum coagulation in slanted position at 85 °C for 120 min.

### Prepared media

|                          |  |
|--------------------------|--|
| Bottled media:           | <b>100 ml: LOE30100, 500 ml: LOE30500</b>  |
| Tubed media:             | <b>100 x 15 mm: LOE40005 (5 ml, slant)</b> |
| Colour of bottled media: | <b>Yellowish, transparent</b>              |
| Colour of tubed media:   | <b>White, turbid</b>                       |
| pH (at 25 °C):           | <b>7,5 – 7,7</b>                           |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media. Mix thoroughly and dispense into sterile test tubes. Inspissate for serum coagulation in slanted position at 85 °C for 120 min. Media in tubes are ready to use.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (peptones, extracts) | 16 |
| Glucose                                 | 7  |
| Sodium chloride                         | 3  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                       | Incubation temp: 37 °C | Growth | Incubation time: 96 h |
|------------------------------------|------------------------|--------|-----------------------|
| <i>Corynebacterium diphtheriae</i> | ATCC 11913             | Good   |                       |

**References:** Loeffler (1897) Zentralbl. Bacteriol. 2: 102.

### LOEWENSTEIN-JENSEN MEDIUM BASE

A strongly selective medium for the cultivation of *Mycobacterium tuberculosis* and other *Mycobacterium* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LJM20500, 5 kg: LJM25000</b> |
| Colour:                | <b>Greenish</b>                        |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38 g** in 590 ml of distilled water. Add **12 ml of Glycerol Supplement (GLC80100)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 1000 ml of sterile mixed whole egg. Mix gently until the mixture is homogeneous but exempt from air bubbles. Dispense aseptically into sterile test tubes. Coagulate and inspissate in slanted position at 85 °C for 45 min.

### Prepared media

|                |  |
|----------------|--|
| Tubed media:   | <b>100 x 15 mm: LJM40005 (5 ml, slant)</b> |
| Colour:        | <b>Light green</b>                         |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                           |

**Direction:** Media in tubes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Potato flour       | 30,00 |
| L-Asparagine       | 3,60  |
| Sodium citrate     | 0,60  |
| Magnesium sulphate | 0,24  |
| Malachite green    | 0,40  |
| Buffer             | 3,16  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth     | Incubation time: 2 weeks |
|-----------------------------------|------------------------|------------|--------------------------|
| <i>Mycobacterium tuberculosis</i> | ATCC 25618             | Acceptable |                          |

**References:** Jensen (1932) Zentralbl. Bakteriol. Parastenkd. Infektionskr. Hyg. Abt. I Orig. 125: 222.

### LURIA AGAR

A non-selective medium for molecular genetic studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LBA20500, 5 kg: LBA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LBA30100, 500 ml: LBA30500</b> |
| Plated media:  | <b>55 mm: LBA50055, 90 mm: LBA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Casein peptone  | 10 |
| Yeast extract   | 5  |
| Sodium chloride | 10 |
| Agar            | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** Miller (1972) Experiments in Molecular Genetics.

### LYSINE IRON (LIA) AGAR

A differential medium for the differentiation of bacteria on the basis of lysine decarboxylase activity and hydrogen sulphite production.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: LIA20500, 5 kg: LIA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **33 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position to form slants with deep butts.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: LIA30100, 500 ml: LIA30500</b>                 |
| Tubed media:   | <b>100 x 12 mm: LIA40003 (3 ml, slant with deep butt)</b> |
| Colour:        | <b>Purple</b>   |
| pH (at 25 °C): | <b>6,6 – 6,8</b>  |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Peptones            | 8,00  |
| L-Lysine            | 10,00 |
| Glucose             | 1,00  |
| Ferric citrate      | 0,50  |
| Sodium thiosulphate | 0,04  |
| Bromocresol purple  | 0,02  |
| Agar                | 13,50 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions |        |                  | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|--------|------------------|-----------------------|
|                               |                        | Slant     | Butt   | H <sub>2</sub> S |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | red       | yellow | –                |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | purple    | purple | +                |                       |
| <i>Citrobacter freundii</i>   | ATCC 8090              | purple    | yellow | +                |                       |

**References:** Edwards and Fife (1961) Appl. Microbiol. 9: 478.

### M17 AGAR

A selective medium for the cultivation and enumeration of lactic streptococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: M1A20500, 5 kg: M1A25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **55 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: M1A30100, 500 ml: M1A30500</b> |
| Plated media:  | <b>55 mm: M1A50055, 90 mm: M1A50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 17,25 |
| Lactose                 | 5,00  |
| Magnesium sulphate      | 0,25  |
| Ascorbic acid           | 0,50  |
| Sodium glycerophosphate | 19,00 |
| Agar                    | 13,00 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                | Incubation temp: 30 °C | Growth | Incubation time: 48 h |
|-----------------------------|------------------------|--------|-----------------------|
| <i>Streptococcus lactis</i> | ATCC 19435             | Good   |                       |

**References:** Terzaghi and Sandine (1975) Applied Microbiol. 29: 807.

### M17 BROTH

A selective medium for the cultivation and enumeration of lactic streptococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: M1B20500, 5 kg: M1B25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: M1B30100, 500 ml: M1B30500</b> |
| Tubed media:   | <b>150 x 15 mm: M1B40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,8 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 17,25 |
| Lactose                 | 5,00  |
| Magnesium sulphate      | 0,25  |
| Ascorbic acid           | 0,50  |
| Sodium glycerophosphate | 19,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                | Incubation temp: 30 °C | Growth | Incubation time: 48 h |
|-----------------------------|------------------------|--------|-----------------------|
| <i>Streptococcus lactis</i> | ATCC 19435             | Good   |                       |

**References:** Terzaghi and Sandine (1975) Applied Microbiol. 29: 807.

### MACCONKEY AGAR BASE, SORBITOL

A selective and differential medium for the detection of *Escherichia coli* 0157.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MCS20500, 5 kg: MCS25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **26 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Cefixime Tellurite Supplement (CTS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MCS30100, 500 ml: MCS30500</b> |
| Plated media:  | <b>55 mm: MCS50055, 90 mm: MCS50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,500 |
| Bile salts No.3 | 1,500  |
| Sorbitol        | 10,000 |
| Sodium chloride | 5,000  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,001  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                      | Incubation time: 24 h |
|------------------------------|------------------------|-----------------------------|-----------------------|
| <i>Escherichia coli</i> 0157 | ATCC 35150             | Good, colourless colonies   |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies |                       |

**References:** ISO 16654

### MACCONKEY AGAR No.3

A selective and differential medium for the detection of coliforms and enteric pathogens.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MCA20500, 5 kg: MCA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **52 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MCA30100, 500 ml: MCA30500</b> |
| Plated media:  | <b>55 mm: MCA50055, 90 mm: MCA50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,500 |
| Bile salts No.3 | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,001  |
| Agar            | 15,000 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** MacConkey (1900) The Lancet

### MACCONKEY AGAR WITHOUT CRYSTAL VIOLET

A selective and differential medium for the detection of coliforms and enteric pathogens as well as some *Staphylococcus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MWC20500, 5 kg: MWC25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **52 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MWC30100, 500 ml: MWC30500</b> |
| Plated media:  | <b>55 mm: MWC50055, 90 mm: MWC50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,500 |
| Bile salts No.3 | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| Neutral red     | 0,030  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Moderate, colourless colonies                     |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** MacConkey (1900) The Lancet

### MACCONKEY AGAR WITHOUT SALT

A selective and differential medium for the isolation and enumeration of micro-organisms from urine. The medium is electrolyte deficient to prevent the swarming of the most *Proteus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MWS20500, 5 kg: MWS25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **47 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MWS30100, 500 ml: MWS30500</b> |
| Plated media:  | <b>55 mm: MWS50055, 90 mm: MWS50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 20,500 |
| Bile salts No.3 | 1,500  |
| Lactose         | 10,000 |
| Neutral red     | 0,030  |
| Crystal violet  | 0,001  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** MacConkey (1900) The Lancet

### MACCONKEY AGAR, PH EUR - USP

A selective and differential medium for the detection of coliforms and enteric pathogens according to PH EUR (Agar Medium H – Harmonised).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MCE20500, 5 kg: MCE25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MCE30100, 500 ml: MCE30500</b> |
| Plated media:  | <b>55 mm: MCE50055, 90 mm: MCE50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                      |        |
|----------------------|--------|
| Gelatin peptone      | 17,000 |
| Peptones             | 3,000  |
| Bacteriological bile | 1,500  |
| Lactose monohydrate  | 10,000 |
| Sodium chloride      | 5,000  |
| Neutral red          | 0,030  |
| Crystal violet       | 0,001  |
| Agar                 | 13,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** European Pharmacopoeia

### MACCONKEY BROTH, PH EUR - USP

A selective and differential medium for the detection of coliforms according to PH EUR (Broth Medium G – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MBE20500, 5 kg: MBE25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MBE30100, 500 ml: MBE30500</b> |
| Tubed media:   | <b>150 x 15 mm: MBE40010 (10 ml)</b>      |
| Colour:        | <b>Purple</b>                             |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes fitted with Durham tube. Media in tubes are ready to use.

### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Gelatin peptone      | 20,00 |
| Bacteriological bile | 5,00  |
| Lactose monohydrate  | 10,00 |
| Bromocresol purple   | 0,01  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, with gas production, colour change to yellow |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, without gas production and colour change     |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited  |                       |

**References:** European Pharmacopoeia

### MALACHITE GREEN BROTH BASE

A selective medium for the cultivation of *Pseudomonas aeruginosa*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MIB20500, 5 kg: MIB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **4,2 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Malachite Green Solution, Sterile (MS080030)**. Mix well and dispense aseptically into sterile final containers.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MIB30100, 500 ml: MIB30500</b> |
| Tubed media:   | <b>150 x 15 mm: MIB40010 (10 ml)</b>      |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>7,5 – 7,7</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|          |     |
|----------|-----|
| Peptones | 8,0 |
| Buffers  | 0,4 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** Habs and Kirschner (1943) Z. Hyg. 124: 557.

### MALONATE AGAR

A differential medium for the differentiation of bacteria on the basis of their ability to utilize malonate.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MAA20500, 5 kg: MAA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **25 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MAA30100 500 ml: MAA30500</b>    |
| Tubed media:   | <b>100 x 12 mm: MAA40002 (2 ml – slant)</b> |
| Colour:        | <b>Green</b>                                |
| pH (25 °C):    | <b>6,6 – 6,8</b>                            |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

### FORMULA in g/l

|                   |       |
|-------------------|-------|
| Yeast extract     | 1,00  |
| Sodium malonate   | 3,00  |
| Sodium chloride   | 2,00  |
| Ammonium sulphate | 2,00  |
| Bromothymol blue  | 0,03  |
| Buffers           | 1,00  |
| Agar              | 16,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                          | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------------------|-----------------------|
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Positive, colour change to blue |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Negative, without colour change |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

## MALONATE BROTH

A differential medium for the differentiation of bacteria on the basis of their ability to utilize malonate.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MAD20500, 5 kg: MAD25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous powder</b>              |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **10 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MAD30100, 500 ml: MAD30500</b> |
| Tubed media:   | <b>100 x 12 mm: MAD40003 (3 ml)</b>       |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>6,6 – 6,8</b>                          |

**Direction:** Dispense the bottled media aseptically into test tubes. Media in tubes are ready for use.

### FORMULA in g/l

|                   |      |
|-------------------|------|
| Yeast extract     | 2,00 |
| Sodium malonate   | 3,00 |
| Sodium chloride   | 2,00 |
| Ammonium-sulphate | 2,00 |
| Bromothymol blue  | 0,03 |
| Buffers           | 1,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                          | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------------------|-----------------------|
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Positive, colour change to blue |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Negative, without colour change |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

## MALT EXTRACT AGAR

A selective medium for the detection, isolation and enumeration of yeasts and moulds.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MEA20500, 5 kg: MEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **50 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 10 minutes. If adjustment of pH is necessary to pH 3,5, cool to 50 °C and add aseptically **Lactic Acid Solution (LAS80100)** to the medium in the necessary quantity. Mix well before pouring.

### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

Once acidified with lactic acid, the medium should not be reheated.

The ready medium is slightly turbid, but exempt from any precipitation.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MEA30100, 500 ml: MEA30500</b> |
| Plated media:  | <b>55 mm: MEA50055, 90 mm: MEA50090</b>   |
| Colour:        | <b>Yellowish, slightly turbid</b>         |
| pH (25 °C)     | <b>5,3 – 5,5</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|              |    |
|--------------|----|
| Peptones     | 5  |
| Malt extract | 30 |
| Agar         | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                           | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|--|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>                | ATCC 10231             | Good      |                       |
| <i>Bacillus cereus (if the pH=3.5)</i> | ATCC 11778             | Inhibited |                       |

**References:** Galloway and Burgess (1952) Applied Mycology and Bacteriology 3<sup>rd</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### MALT EXTRACT BROTH

A selective medium for the cultivation of yeasts and moulds.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MBR20500, 5 kg: MBR25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat gently to dissolve the medium completely. If adjustment of pH is necessary to pH 3,5, cool to 50 °C and add aseptically **Lactic Acid Solution (LAS80100)** to the medium in the necessary quantity. Dispense into final containers and sterilise by autoclaving at 115 °C for 10 minutes.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MBR30100, 500 ml: MBR30500</b> |
| Tubed media:   | <b>150 x 15 mm: MBR40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>5,3 – 5,5</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to the direction of the dehydrated media and dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|              |    |
|--------------|----|
| Peptones     | 5  |
| Malt extract | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                           | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|--|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>                | ATCC 10231             | Good      |                       |
| <i>Bacillus cereus (if the pH=3.5)</i> | ATCC 11778             | Inhibited |                       |

**References:** Galloway and Burgess (1952) Applied Mycology and Bacteriology, 3<sup>rd</sup> ed.

### MANNITOL LYSINE BRILLIANT GREEN AGAR

A selective and differential medium for the isolation of *Salmonella* spp. other than *S. typhi*.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: MLA20500, 5 kg: MLA25000</b> |
| Colour:      | <b>Yellowish green</b>                 |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **54 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly! Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MLA30100, 500 ml: MLA30500</b> |
| Plated media:  | <b>55 mm: MLA50055, 90 mm: MLA50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                         |         |
|-------------------------|---------|
| Peptones                | 22,0000 |
| L-lysine                | 5,0000  |
| Mannitol                | 3,0000  |
| Sodium chloride         | 4,0000  |
| Sodium thiosulphate     | 4,0000  |
| Ferric ammonium citrate | 1,0000  |
| Brilliant green         | 0,0125  |
| Violet red              | 0,0100  |
| Agar                    | 15,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, mauve coloured colonies with black centre |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                                       |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                                       |                       |

**References:** Inoue et al. (1968) Jap. J. Vet. Sci. 30.

#### NEW PRODUCT

### MANNITOL MOTILITY NITRATE (MMN) MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of mannitol fermentation, motility and nitrate reduction.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MMN20500, 5 kg: MMN25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **22 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MMN30100, 500 ml: MMN30500</b> |
| Tubed media:   | <b>100 x 12 mm: MMN40003 (3 ml)</b>       |
| Colour:        | <b>Orange red</b>                         |
| pH (at 25 °C): | <b>7,5 – 7,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                   |       |
|-------------------|-------|
| Peptones          | 10,00 |
| Mannitol          | 7,50  |
| Potassium nitrate | 1,00  |
| Phenol red        | 0,04  |
| Agar              | 3,50  |



## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Reactions |          | Incubation time: 24 h |  |
|------------------------------|------------------------|-----------|----------|-----------------------|--|
|                              |                        | Mannitol  | Motility | Nitrate               |  |
| <i>Escherichia coli</i>      | ATCC 25922             | +         | +        | +                     |  |
| <i>Klebsiella pneumoniae</i> | ATCC 13883             | –         | +        | +                     |  |
| <i>Proteus mirabilis</i>     | ATCC 29906             | +         | –        | +                     |  |

**References:** Pickett (1980) Nonfermentative Gram-negative bacilli. Scientific Developments Press, Los Angeles.

### MANNITOL SALT AGAR, PH EUR – USP

A selective and differential medium for the isolation and presumptive identification of pathogenic staphylococci according to PH EUR (Mannitol Salt Agar – Harmonised).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MSA20500, 5 kg: MSA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **110 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MSA30100, 500 ml: MSA30500</b> |
| Plated media:  | <b>55 mm: MSA50055, 90 mm: MSA50090</b>   |
| Colour:        | <b>Orange-red</b>                         |
| pH (25 °C):    | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Casein peptone  | 5,000  |
| Meat peptone    | 5,000  |
| Beef extract    | 1,000  |
| D-Mannitol      | 10,000 |
| Sodium chloride | 75,000 |
| Phenol red      | 0,025  |
| Agar            | 14,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                      | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|-----------------------------------|------------------------|--|-----------------------|
| <i>Staphylococcus aureus</i>      | ATCC 29213             | Good, yellow colonies with yellow halo |                       |
| <i>Staphylococcus epidermidis</i> | ATCC 12228             | Good, red colonies without halo        |                       |
| <i>Escherichia coli</i>           | ATCC 25922             | Inhibited                              |                       |

**References:** Chapman (1945) J. Bact. 50: 201.; European Pharmacopoeia

### MAXIMUM RECOVERY DILUENT

A protective and isotonic diluent for maximum recovery of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MRD20500, 5 kg: MRD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **9,5 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MRD30100, 500 ml: MRD30500</b> |
| Tubed media:   | <b>150 x 15 mm: MRD40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |     |
|-----------------|-----|
| Peptones        | 1,0 |
| Sodium chloride | 8,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i> | ATCC 25922             | Good   |                       |

**References:** Straker and Stokes (1957) J. Appl. Bact. 26: 493.

### MEAT EXTRACT BROTH

A general purpose medium for the cultivation of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MEX20500, 5 kg: MEX25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **8 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MEX30100, 500 ml: MEX30500</b> |
| Tubed media:   | <b>150 x 15 mm: MEX40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|              |   |
|--------------|---|
| Peptones     | 5 |
| Beef extract | 3 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** APHA (1980) Standard Methods for the Examination of Water and Wastewater. 15<sup>th</sup> ed.

### MEMBRANE LAURYL SULPHATE (MLSB) BROTH

A selective medium for the enumeration of coliforms and *Escherichia coli*.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MLS20500, 5 kg: MLS25000 |
| Colour:                | Pinkish                         |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 76 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly!

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MLS30100, 500 ml: MLS30500 |
| Tubed media:   | 100 x 12 mm: MLS40002 (2 ml)       |
| Colour:        | Orange red                         |
| pH (at 25 °C): | 7,3 – 7,5                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                        |      |
|------------------------|------|
| Peptones               | 44,8 |
| Lactose                | 30,0 |
| Sodium lauryl sulphate | 1,0  |
| Phenol red             | 0,2  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|--------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Escherichia coli</i>  | ATCC 25922             | Good, yellow colonies on the membrane |                       |
| <i>Bacillus subtilis</i> | ATCC 6633              | Inhibited                             |                       |

**References:** Burnhan (1967) Proc. Soc. Wat. Treat Exam 16: 40.

NEW PRODUCT

### M-FC AGAR BASE

A selective and differential medium for the detection and enumeration of faecal coliforms by membrane filtration.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MFC20500, 5 kg: MFC25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 26 g in 500 ml of distilled water and heat with frequent agitation until the medium becomes transparent (about 90 °C). Add the content of one vial of Rosolic Acid Supplement (RAS80005) reconstituted with 5 ml of sterile distilled water. Continue heating with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                          |                                    |
|--------------------------|------------------------------------|
| Bottled media:           | 100 ml: MFC30100, 500 ml: MFC30500 |
| Plated media:            | 55 mm: MFC50055, 90 mm: MFC50090   |
| Colour of bottled media: | Dark blue                          |
| Colour of plated media:  | Reddish purple                     |
| pH (25 °C):              | 7,2 – 7,4                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 18,0 |
| Bile salts      | 1,5  |
| Lactose         | 12,4 |
| Sodium chloride | 5,0  |
| Aniline blue    | 0,1  |
| Agar            | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth              | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, blue colonies |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, grey colonies |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited           |                       |

**References:** Geldreich et al. (1965) J. Am. Water Works Assoc. 57: 208.

NEW PRODUCT

### M-FC BROTH BASE

A selective and differential medium for the detection and enumeration of faecal coliforms by membrane filtration.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MFB20500, 5 kg: MFB25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

**Direction:** Suspend 18,5 g in 500 ml of distilled water. Add the content of one vial of Rosolic Acid Supplement (RAS80005) reconstituted with 5 ml of sterile distilled water. Mix well and heat with frequent agitation until the medium boils well.

## II. DEHYDRATED CULTURE MEDIA

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: MFB30100, 500 ml: MFB30500</b> |
| Tubed media:             | <b>100 x 12 mm: MFB40002 (2 ml)</b>       |
| Colour of bottled media: | <b>Dark blue</b>                          |
| Colour of tubed media:   | <b>Reddish purple</b>                     |
| pH (at 25 °C):           | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 18,0 |
| Bile salts      | 1,5  |
| Lactose         | 12,4 |
| Sodium chloride | 5,0  |
| Aniline blue    | 0,1  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                      | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, colour change to blue |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colour change to grey |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                   |                       |

**References:** Geldreich et al. (1965) J. Am. Water Works Assoc. 57: 208.

### M-GREEN AGAR

A selective end differential medium for the detection of yeasts and moulds according to the ISO 10718.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MGA20500, 5 kg: MGA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>4,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **87 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

- The medium is heat sensitive. No further sterilisation is necessary or desirable.
- The low pH softens the agar, therefore the consistency is not suitable for inoculation, but sufficient to keep the membrane filter.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MGA30100, 500 ml: MGA30500</b> |
| Plated media:  | <b>55 mm: MGA50055, 90 mm: MGA50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>4,5 – 4,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### Warning!

Melt and cool the medium quickly!  
Prolonged heating diminish the gel strength of the agar.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Casein peptone      | 5,000  |
| Meat peptone        | 5,000  |
| Yeast extract       | 9,000  |
| Glucose (anhydrous) | 50,000 |
| Magnesium sulphate  | 2,100  |
| Diastase            | 0,050  |
| Thiamine HCl        | 0,050  |
| Bromocresol green   | 0,026  |
| Potassium phosphate | 2,000  |
| Agar                | 13,800 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |
| <i>Aspergillus niger</i>        | ATCC 16404             | Good   |                       |

**References:** ISO 10718

### M-GREEN BROTH

A selective end differential medium for the detection of yeasts and moulds according to the ISO 10718.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MGB20500, 5 kg: MGB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>4,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **73,2 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MGB30100, 500 ml: MGB30500</b> |
| Tubed media:   | <b>100 x 10 mm: SDB40002 (2 ml)</b>       |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>4,5 – 4,7</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Casein peptone      | 5,000  |
| Meat peptone        | 5,000  |
| Yeast extract       | 9,000  |
| Glucose (anhydrous) | 50,000 |
| Magnesium sulphate  | 2,100  |
| Diastase            | 0,050  |
| Thiamine HCl        | 0,050  |
| Bromocresol green   | 0,026  |
| Potassium phosphate | 2,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |
| <i>Aspergillus niger</i>        | ATCC 16404             | Good   |                       |

References: ISO 10718

### MOELLER BROTH

See: Culture Media for Amino Acid Decomposition Studies (page 137)

### NEW PRODUCT

### MOTILITY INDOLE LYSINE (MIL) MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of motility, indole production, lysine deaminase and lysine decarboxylase activity.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MIL20500, 5 kg: MIL25000 |
| Colour:                | Beige                           |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 6,6 (approx.) at 25 °C          |

**Direction:** Suspend 36 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121°C for 15 minutes.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MIL30100, 500 ml: MIL30500 |
| Tubed media:   | 100 x 12 mm: MIL40003 (3 ml)       |
| Colour:        | Purple                             |
| pH (at 25 °C): | 6,5 – 6,7                          |

**Direction:** Dispense the melted bottled media aseptically into test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 22,50 |
| L-Lysine                | 10,00 |
| Glucose                 | 1,00  |
| Ferric ammonium citrate | 0,50  |
| Bromocresol purple      | 0,02  |
| Agar                    | 2,00  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions            |                  |          | Incubation time: 24 h |  |
|-------------------------------|------------------------|----------------------|------------------|----------|-----------------------|--|
|                               |                        | Lysine decarboxylase | Lysine deaminase | Motility | Indole                |  |
| <i>Escherichia coli</i>       | ATCC 25922             | +                    | –                | +        | +                     |  |
| <i>Proteus mirabilis</i>      | ATCC 29906             | –                    | +                | +        | –                     |  |
| <i>Salmonella typhimurium</i> | ATCC 14028             | +                    | –                | +        | –                     |  |
| <i>Shigella sonnei</i>        | ATCC 25931             | –                    | –                | –        | –                     |  |

References: Reller and Mirrett (1975) J. Clin. Microbiol. 2: 247.

### MOTILITY INDOLE UREA (MIU) MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of motility, indole production and urease activity.

#### Dehydrated media

|              |   |
|--------------|---|
| Code Number: | 500 g: MIU20500-M                           |
|              | packaging: 380 g medium base + 120 g urea   |
|              | 5 kg: MIU25000                              |
|              | packaging: 3,8 kg medium base + 1,2 kg urea |

|                          |  |
|--------------------------|--|
| Appearance of agar base: | Pinkish homogeneous hygroscopic powder |
| Appearance of urea:      | White pellet                           |
| pH before autoclaving:   | 6,5 (approx.) at 25 °C                 |
| pH after autoclaving:    | 6,8 (approx.) at 25 °C                 |

**Direction:** Suspend 32 g medium base and 10 g urea in one litre of distilled water and heat with frequent agitation until the medium boils well. Distribute into test tubes and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MIU30100, 500 ml: MIU30500 |
| Tubed media:   | 100 x 15 mm: MIU40005 (5 ml)       |
| Colour:        | Pinkish                            |
| pH (at 25 °C): | 6,6 – 7,0                          |

**Direction:** Dispense the melted bottled media aseptically into test tubes. Media in tubes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 11,000 |
| Sodium chloride | 5,000  |
| Urea            | 20,000 |
| Phenol red      | 0,012  |
| Buffers         | 3,000  |
| Agar            | 3,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains             | Incubation temp: 37 °C | Reactions |          |        |
|--------------------------|------------------------|-----------|----------|--------|
|                          |                        | Urea      | Motility | Indole |
| <i>Proteus mirabilis</i> | ATCC 29906             | +         | +        | –      |
| <i>Escherichia coli</i>  | ATCC 25922             | –         | +        | +      |
| <i>Shigella sonnei</i>   | ATCC 25931             | –         | –        | –      |

References: Roland et al. (1947) Ann. Inst. Pasteur 73: 914.  
Christensen (1946) J. Bact. 52: 461.

### MOTILITY MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of motility.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MOA20500, 5 kg: MOA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,4 (approx.) at 25 °C          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **22 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MOA30100, 500 ml: MOA30500</b> |
| Tubed media:   | <b>100 x 12 mm: MOA40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                                     |       |
|-------------------------------------|-------|
| Peptones                            | 13,00 |
| Sodium chloride                     | 5,00  |
| 2,3,5-Triphenyltetrazolium chloride | 0,05  |
| Agar                                | 4,00  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains            | Incubation temp: 37 °C | Growth                     | Incubation time: 24 h |
|-------------------------|------------------------|----------------------------|-----------------------|
| <i>Escherichia coli</i> | ATCC 25922             | Positive, motility         |                       |
| <i>Shigella sonnei</i>  | ATCC 25931             | Negative, without motility |                       |

**References:** Tittsler and Sandholzer (1936) J. Bacteriol. 31: 575.

NEW PRODUCT

### MOTILITY NITRATE (MN) MEDIUM BASE

A semi-solid differential medium for the differentiation of bacteria on the basis of motility and nitrate reduction.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MON20500, 5 kg: MON25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **19 g** in one litre of distilled water. Add **5 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MON30100, 500 ml: MON30500</b> |
| Tubed media:   | <b>100 x 12 mm: MON40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                   |    |
|-------------------|----|
| Peptones          | 14 |
| Potassium nitrate | 1  |
| Sodium chloride   | 1  |
| Agar              | 3  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Reactions | Incubation time: 48 h |
|--------------------------------|------------------------|-----------|-----------------------|
|                                |                        | Motility  | Nitrate reduction     |
| <i>Clostridium perfringens</i> | ATCC 13124             | +         | –                     |
| <i>Clostridium sporogenes</i>  | ATCC 11437             | –         | +                     |

**References:** Pickett (1980) Nonfermentative Gram-negative bacilli. Scientific Developments Press, Los Angeles.

### M-PA-B AGAR

A selective and differential medium for the selective recovery and enumeration of *Pseudomonas aeruginosa* from heavily contaminated samples.

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: MPB20500, 5 kg: MPB25000</b> |
| Colour:      | <b>Pinkish</b>                         |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **39 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly. Mix well before pouring.

### Warning!

The medium is heat-sensitive.

No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MPB30100, 500 ml: MPB30500</b> |
| Plated media:  | <b>55 mm: MPB50055, 90 mm: MPB50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Yeast extract           | 2,000  |
| L-Lysine                | 5,000  |
| Xylose                  | 1,250  |
| Lactose                 | 1,250  |
| Sucrose                 | 1,250  |
| Sodium chloride         | 5,000  |
| Sodium thiosulphate     | 5,000  |
| Magnesium sulphate      | 1,500  |
| Ferric ammonium citrate | 0,800  |
| Nalidixic acid          | 0,037  |
| Sulfapyridine           | 0,170  |
| Cycloheximide           | 0,150  |
| Kanamycin               | 0,008  |
| Phenol red              | 0,080  |
| Agar                    | 15,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, brown – dark brown colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                         |                       |

References: Levin and Cabelli (1972) Appl. Microbiol. 24: 864.

### M-PA-C AGAR

A selective and differential medium for the selective recovery and enumeration of *Pseudomonas aeruginosa* from slightly contaminated samples.

#### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: MPA20500, 5 kg: MPA25000 |
| Colour:      | Pinkish                         |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 7,2 (approx.) at 25 °C          |

**Direction:** Suspend 38 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly. Mix well before pouring.

#### Warning!

The medium is heat-sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MPA30100, 500 ml: MPA30500 |
| Plated media:  | 55 mm: MPA50055, 90 mm: MPA50090   |
| Colour:        | Red                                |
| pH (25 °C):    | 7,1 – 7,3                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Yeast extract           | 2,000  |
| L-Lysine                | 5,000  |
| Xylose                  | 1,250  |
| Lactose                 | 1,250  |
| Sucrose                 | 1,250  |
| Sodium chloride         | 5,000  |
| Sodium thiosulphate     | 5,000  |
| Magnesium sulphate      | 1,500  |
| Ferric ammonium citrate | 0,800  |
| Nalidixic acid          | 0,037  |
| Kanamycin               | 0,008  |
| Phenol red              | 0,080  |
| Agar                    | 14,800 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good, brown – dark brown colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                         |                       |

References: Levin and Cabelli (1972) Appl. Microbiol. 24: 864.

### MRS AGAR BASE

A low selective medium for the isolation and cultivation of *Lactobacillus* spp. according to ISO 15214.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MRA20500, 5 kg: MRA25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 5,7 (approx.) at 25 °C          |

**Direction:** Suspend 63 g in one litre of distilled water. Add 10 ml of MRS Supplement (MRC80100). Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Warning!

To ensure the homogeneity shake well the supplement before use.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: MRA30100, 500 ml: MRA30500 |
| Plated media:  | 55 mm: MRA50055, 90 mm: MRA50090   |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 5,6 – 5,8                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|   |       |
|---|-------|
| Casein peptone                          | 10,00 |
| Meat extract                            | 10,00 |
| Yeast extract                           | 4,00  |
| Glucose                                 | 20,00 |
| Sodium acetate                          | 3,00  |
| Ammonium citrate                        | 2,00  |
| Magnesium sulphate x 7H <sub>2</sub> O  | 0,20  |
| Manganese sulphate x 4 H <sub>2</sub> O | 0,05  |
| Potassium phosphate, dibasic            | 2,00  |
| TWEEN 80                                | 1,08  |
| Agar                                    | 14,75 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                     | Incubation temp: 37 °C | Growth                                | Incubation time: 72 h |
|----------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good (under micro-aerobic conditions) |                       |
| <i>Escherichia coli</i>          | ATCC 25922             | Moderate growth                       |                       |

References: DeMan, Rogosa and Sharpe (1960) J. Appl. Bact. 23: 30.; ISO 15214

### MRS BROTH BASE

A low selective medium for the cultivation of *Lactobacillus* spp.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: MRB20500, 5 kg: MRB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 6,2 (approx.) at 25 °C          |

**Direction:** Suspend 50 g in one litre of distilled water. Add 10 ml of MRS Supplement (MRC80100). Mix well and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Warning!

To ensure the homogeneity shake well the supplement before use.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MRB30100, 500 ml: MRB30500</b> |
| Tubed media:   | <b>150 x 15 mm: MRB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,1 – 6,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 25,50 |
| Glucose            | 20,00 |
| Ammonium-citrate   | 2,00  |
| Magnesium sulphate | 0,20  |
| Manganese sulphate | 0,05  |
| Buffers            | 2,25  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                     | Incubation temp: 37 °C | Growth                                | Incubation time: 72 h |
|----------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good (under micro-aerobic conditions) |                       |

**References:** DeMan, Rogosa and Sharpe (1960) J. Appl. Bact. 23: 30.

## MRSA SCREEN AGAR BASE

A selective medium for the presumptive identification of MRSA.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MRS20500, 5 kg: MRS25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **39 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of MRSA Selective Supplement (MSS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MRS30100, 500 ml: MRS30500</b> |
| Plated media:  | <b>55 mm: MRS50055, 90 mm: MRS50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 19,5 |
| Starch soluble  | 1,5  |
| Sodium chloride | 40,0 |
| Agar            | 17,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains | Incubation temp: 37 °C | Growth    | Incubation time: 48 h |
|--------------|------------------------|-----------|-----------------------|
| MRSA         | ATCC 33591             | Good      |                       |
| MSSA         | ATCC 29213             | Inhibited |                       |

## MRVP BROTH

A differential medium for the differentiation of bacteria on the basis of methyl red and Voges-Proskauer reactions.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MVP20500, 5 kg: MVP25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **17 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly!

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MVP30100, 500 ml: MVP30500</b> |
| Tubed media:   | <b>100 x 12 mm: MVP40002 (2 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|          |   |
|----------|---|
| Peptones | 7 |
| Glucose  | 5 |
| Buffers  | 5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions  |                 |
|-------------------------------|------------------------|------------|-----------------|
|                               |                        | Methyl red | Voges-Proskauer |
| <i>Escherichia coli</i>       | ATCC 25922             | +          | –               |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | –          | +               |

**References:** Voges and Proskauer (1898) Z. Hyg. 28: 20.

## MUELLER-HINTON AGAR, FUNGI

A standard medium for antimycotical susceptibility testing. The addition of methylene blue enhances zone edge definition.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MHF20500, 5 kg: MHF25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **58 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MHF30100, 500 ml: MHF30500</b> |
| Plated media:  | <b>55 mm: MHF50055, 90 mm: MHF50090</b>   |
| Colour:        | <b>Bluish</b>                             |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                |         |
|----------------|---------|
| Peptones       | 19,5000 |
| Glucose        | 20,0000 |
| Starch soluble | 1,5000  |
| Methylene blue | 0,0005  |
| Agar           | 17,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good   |                       |

**References:** Mueller and Hinton (1941) Proc. Soc. Exp. Biol. Med. 48: 330.

### MUELLER-HINTON II AGAR

An antimicrobial susceptibility testing medium which fits the requirements of NCCLS. The medium has extremely low concentrations of thymine and thymidine as well as appropriate levels of calcium and magnesium ions.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MHT20500, 5 kg: MHT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction for Mueller-Hinton II Agar:** Suspend **38 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

**Direction for Mueller-Hinton II Blood Agar, EUCAST:** Suspend **38 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated horse blood and 0,02 g β-NAD**. Mix well before pouring.

### Prepared media

|  |   |
|--|---|
| Bottled media:                               | <b>100 ml: MHT30100, 500 ml: MHT30500</b>   |
| Plated Mueller-Hinton Agar:                  | <b>90 mm Petri-dish, 25 ml: MHT50090-01</b> |
| Plated Mueller-Hinton II Blood Agar, EUCAST: | <b>90 mm Petri-dish, 25 ml: MHT50090-04</b> |
| Colour of blood free agar:                   | <b>Yellowish</b>                            |
| Colour of blood agar:                        | <b>Ruby red</b>                             |
| pH (at 25 °C):                               | <b>7,2 – 7,4</b>                            |

**Direction:** If necessary, supplements may be added to the melted bottled media according to the direction of the dehydrated media. Dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                |      |
|----------------|------|
| Peptones       | 19,5 |
| Starch soluble | 1,5  |
| Agar           | 17,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

#### Conditions, Mueller-Hinton II Agar:

| Incubation temperature:       |               | 37 °C  |  | Incubation time: |  | 16 h |  |
|-------------------------------|---------------|--------|--|------------------|--|------|--|
| Test strains                  |               | Growth |  | Zone diameter    |  |      |  |
| <i>Escherichia coli</i>       | ATCC25922     | Good   |  |                  |  |      |  |
| Ampicillin                    | 10 µg         |        |  | 16 – 22 mm       |  |      |  |
| Gentamicin                    | 10 µg         |        |  | 19 – 26 mm       |  |      |  |
| Tigecycline                   | 15 µg         |        |  | 20 – 27 mm       |  |      |  |
| Trimeth.-Sulfam.              | 1,25/23,75 µg |        |  | 23 – 29 mm       |  |      |  |
| <i>Enterococcus faecalis</i>  | ATCC29212     | Good   |  |                  |  |      |  |
| Trimeth.-Sulfam.              | 1,25/23,75 µg |        |  | ≥ 20 mm          |  |      |  |
| <i>Pseudomonas aeruginosa</i> | ATCC27853     | Good   |  |                  |  |      |  |
| Gentamicin                    | 10 µg         |        |  | 16 – 21 mm       |  |      |  |
| Tobramycin                    | 10 µg         |        |  | 19 – 25 mm       |  |      |  |
| <i>Staphylococcus aureus</i>  | ATCC29213     | Good   |  |                  |  |      |  |
| Oxacillin                     | 1 µg          |        |  | 18 – 24 mm       |  |      |  |
| Gentamicin                    | 10 µg         |        |  | 19 – 27 mm       |  |      |  |
| Cefoxitin                     | 30 µg         |        |  | 23 – 29 mm       |  |      |  |
| Trimeth.-Sulfam.              | 1,25/23,75 µg |        |  | 24 – 32 mm       |  |      |  |

#### Conditions, Mueller-Hinton II Blood Agar, EUCAST:

| Incubation temperature:         |               | 37 °C  |  | Incubation time: |  | 16 h |  |
|---------------------------------|---------------|--------|--|------------------|--|------|--|
| Test strains                    |               | Growth |  | Zone diameter    |  |      |  |
| <i>Streptococcus pneumoniae</i> | ATCC49619     | Good   |  |                  |  |      |  |
| Oxacillin                       | 1 µg          |        |  | 8 – 14 mm        |  |      |  |
| Trimeth. Sulfam.                | 1,25/23,75 µg |        |  | 20 – 26 mm       |  |      |  |

**References:** Mueller and Hinton (1941) Proc. Soc. Exp. Biol. Med. 48: 330.

### MUELLER-HINTON II BROTH

An antimicrobial susceptibility testing medium, which may be used in internationally recognised standard procedures. The medium has extremely low concentrations of thymine and thymidine as well as appropriate levels of calcium and magnesium ions.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MHC20500, 5 kg: MHC25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **21 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MHC30100, 500 ml: MHC30500</b> |
| Tubed media:   | <b>150 x 15 mm: MHC40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                |      |
|----------------|------|
| Peptones       | 19,5 |
| Starch soluble | 1,5  |



## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good   |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Good   |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Good   |                       |

**References:** Mueller and Hinton (1941) Proc. Soc. Exp. Biol. Med. 48: 330.

### MYCOPLASMA (PPLO) AGAR BASE

A highly nutritious medium base for preparation of Mycoplasma (PPLO) Medium.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MYA20500, 5 kg: MYA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **17,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add enrichments (horse serum, specially prepared yeast extract). For a selective medium (which inhibits bacteria) add inhibitors (thallium acetate and antibiotics). Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MYA30100, 500 ml: MYA30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C)     | <b>7,7 – 7,9</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (heart infusion, peptones) | 16 |
| Sodium chloride                               | 5  |
| Agar  | 14 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 7 days |
|------------------------------|------------------------|--------|-------------------------|
| <i>Mycoplasma pneumoniae</i> | ATCC 15531             | Good   |                         |

**References:** Morton et al. (1951) Am. J. Syphil. Gonorrh. Vener. Dis. 35: 361.

### MYCOPLASMA (PPLO) BROTH BASE

A highly nutritious medium base for the preparation of Mycoplasma (PPLO) Broth.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: MYB20500, 5 kg: MYB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **10,5 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add enrichments (horse serum, specially prepared yeast extract). For a selective medium (which inhibits bacteria) add inhibitors (thallium acetate and antibiotics). Mix well and dispense aseptically into sterile final container.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MYB30100, 500 ml: MYB30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C)     | <b>7,7 – 7,9</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile final containers.

### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (heart infusion, peptones) | 16 |
| Sodium chloride                               | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 7 days |
|------------------------------|------------------------|--------|-------------------------|
| <i>Mycoplasma pneumoniae</i> | ATCC 15531             | Good   |                         |

**References:** Morton et al. (1951) Am. J. Syphil. Gonorrh. Vener. Dis. 35: 361.

### NEUTRALISING FLUID BASE, PH EUR

An inactivating solution for the neutralisation of activity of antimicrobial agents according to PH EUR.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NSE20500, 5 kg: NSE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20,1 g** in 970 ml of distilled water. Add **30 ml of TWEEN 80 Supplement (TWS80500)**. Mix well and keep the suspension at about 50 °C until the lecithin dissolved completely (20–30 min). The dissolution is completed, when the medium is yellowish and slightly turbid, but exempt from any precipitate. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NSE30100, 500 ml: NSE30500</b> |
| Tubed media:   | <b>150 x 15 mm: NSE40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish, homogeneous turbid</b>      |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                                |     |
|--------------------------------|-----|
| Peptone                        | 1,0 |
| Sodium chloride                | 4,3 |
| L-Histidine                    | 1,0 |
| Lecithin                       | 3,0 |
| Potassium phosphate, monobasic | 3,6 |
| Sodium phosphate, dibasic      | 7,2 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** European Pharmacopoeia

### NITRATE BROTH

A differential medium for the differentiation of bacteria on the basis of nitrate reduction.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NIT20500, 5 kg: NIT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **12 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NIT30100, 500 ml: NIT30500</b> |
| Tubed media:   | <b>150 x 15 mm: NIT40004 (4 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile tubes fitted with Durham tube. Media in tubes are ready to use.

#### FORMULA in g/l

|                   |    |
|-------------------|----|
| Peptones          | 10 |
| Potassium nitrate | 2  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Positive (gas production + positive Griess-Ilosvay test)         |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Negative (without gas production + negative Griess-Ilosvay test) |                       |

**References:** MacFaddin (1980) Biochemical Tests for the Identification of Medical Bacteria, 2<sup>nd</sup> ed.

### NUTRIENT AGAR, DEV

A non-selective medium for the determination of total microbial count of water according to DEV.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NUD20500, 5 kg: NUD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **43 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NUD30100, 500 ml: NUD30500</b> |
| Plated media:  | <b>55 mm: NUD50055, 90 mm: NUD50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Meat peptone    | 10 |
| Meat extract    | 10 |
| Sodium chloride | 5  |
| Agar            | 18 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** DEV

### NUTRIENT AGAR

A non-selective general purpose medium for the cultivation of non-fastidious micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NUA20500, 5 kg: NUA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **29 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NUA30100, 500 ml: NUA30500</b> |
| Plated media:  | <b>55 mm: NUA50055, 90 mm: NUA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 11 |
| Sodium chloride | 5  |
| Agar            | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

References: APHA (1917) Standard Methods of Water Analysis, 3<sup>rd</sup> ed.

### NUTRIENT BROTH

A general purpose medium for the cultivation of non-fastidious micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NUB20500, 5 kg: NUB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **16 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NUB30100, 500 ml: NUB30500</b> |
| Tubed media:   | <b>150 x 15 mm: NUB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 11 |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

References: APHA (1985) Standard Methods for the Examination of Water and Wastewater

### NUTRIENT BROTH No.2

A general purpose medium for the cultivation of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NUN20500, 5 kg: NUN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NUN30100, 500 ml: NUN30500</b> |
| Tubed media:   | <b>150 x 15 mm: NUN40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 20 |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

References: British Pharmacopoeia (1980)

### NUTRIENT BROTH, DEV

A general purpose medium for the determination of total microbial count of water according to DEV.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NBD20500, 5 kg: NBD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NBD30100, 500 ml: NBD30500</b> |
| Tubed media:   | <b>150 x 15 mm: NBD40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 10 |
| Meat extract    | 10 |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

References: DEV

## II. DEHYDRATED CULTURE MEDIA

### NUTRIENT GELATIN MEDIUM

A differential medium for detection of gelatinase production by proteolytic micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: GEM20500, 5 kg: GEM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **128 g** in one litre of distilled water and heat with frequent agitation until the medium dissolves completely. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: GEM30100, 500 ml: GEM30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile final containers.

#### FORMULA in g/l

|          |     |
|----------|-----|
| Peptones | 8   |
| Gelatin  | 120 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                             | Incubation time: 168 h |
|------------------------------|------------------------|------------------------------------|------------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, with gelatin liquefaction    |                        |
| <i>Escherichia coli</i>      | ATCC 25922             | Good, without gelatin liquefaction |                        |

**References:** APHA (1960) Standard Methods for the Examination of Water and Sewage.

### NUTRIENT YEAST GLUCOSE (NYDA) AGAR

A non-selective general purpose medium for the cultivation of micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: NYG20500, 5 kg: NYG25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: NYG30100, 500 ml: NYG30500</b> |
| Plated media:  | <b>55 mm: NYG50055, 90 mm: NYG50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 7  |
| Yeast extract   | 5  |
| Glucose         | 1  |
| Sodium chloride | 4  |
| Agar            | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>         | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i>    | ATCC 29213             | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |

**References:** Turner et al. (1984)

### ORANGE SERUM AGAR

A selective medium for the cultivation and enumeration of micro-organisms in citrus juice concentrates.

#### Dehydrated media

|   |  |
|---|--|
| Code Number:  | <b>500 g: OSA20400</b>                           |
| <b>packaging: 400 g of agar base + 2 litre of sterile, filtered, pH adjusted orange juice</b> | <b>5 kg: OSA24000</b>                            |
| <b>packaging: 4 kg of agar base + 20 litre of sterile, filtered, pH adjusted orange juice</b> |  |
| Appearance of agar base:  | <b>Yellowish, homogeneous hygroscopic powder</b> |
| Appearance of orange juice:   | <b>Orange coloured liquid</b>                    |
| pH before autoclaving:  | <b>5,5 (approx.) at 25 °C</b>                    |

**Direction:** Suspend **20 g agar base** in 400 ml of distilled water. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50–60 °C and add aseptically **100 ml of Orange juice**. Mix well before pouring.

#### Warning!

For sufficient accuracy it is enough to apply the 100 ml scale on the bottle of the Orange juice.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: OSA30100, 500 ml: OSA30500</b> |
| Plated media:  | <b>55 mm: OSA50055, 90 mm: OSA50090</b>   |
| Colour:        | <b>Orange</b>                             |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 18 |
| Glucose  | 4  |
| Buffers  | 3  |
| Agar     | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                     | Incubation temp: 30 °C | Growth                                | Incubation time: 72 h |
|----------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good (under micro-aerobic conditions) |                       |
| <i>Saccharomyces cerevisiae</i>  | ATCC 25922             | Good                                  |                       |

**References:** APHA (2001) Compendium of Methods for Microbiological Examination of Foods, 4<sup>th</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### ORANGE SERUM BROTH

A selective medium for the cultivation of micro-organisms in citrus juice concentrates.

#### Dehydrated media

|  |  |
|--|--|
| Code Number:   | <b>500 g: OSB20500</b>                           |
| <b>packaging: 500 g of broth base + 4 litre of sterile, filtered, pH adjusted orange juice</b> | <b>5 kg: OSB25000</b>                            |
| <b>packaging: 5 kg of broth base + 40 litre of sterile, filtered, pH adjusted orange juice</b> |  |
| Appearance of broth base:  | <b>Yellowish, homogeneous hygroscopic powder</b> |
| Appearance of orange juice:  | <b>Orange coloured liquid</b>                    |
| pH before autoclaving:   | <b>5,5 (approx.) at 25 °C</b>                    |

**Direction:** Suspend **12,5 g broth base** in 400 ml of distilled water. Mix well and heat gently to dissolve the medium completely. Add **100 ml of Orange juice**. Mix well and dispense into final containers. Sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

For sufficient accuracy it is enough to apply the 100 ml scale on the bottle of the Orange juice. The medium is heat sensitive. No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: OSB30100, 500 ml: OSB30500</b> |
| Tubed media:   | <b>150 x 15 mm: OSB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 18 |
| Glucose  | 4  |
| Buffers  | 3  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                     | Incubation temp: 30 °C | Growth                                | Incubation time: 72 h |
|----------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good (under micro-aerobic conditions) |                       |
| <i>Saccharomyces cerevisiae</i>  | ATCC 9763              | Good                                  |                       |

**References:** APHA (2001) Compendium of Methods for Microbiological Examination of Foods, 4<sup>th</sup> ed.

### OXYTETRACYCLINE GLUCOSE YEAST EXTRACT AGAR BASE

A selective medium for the enumeration of yeasts and moulds.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: OGY20500, 5 kg: OGY25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **19 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of OGYE Selective Supplement (OGS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: OGY30100, 500 ml: OGY30500</b> |
| Plated media:  | <b>55 mm: OGY50055, 90 mm: OGY50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C)     | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|               |         |
|---------------|---------|
| Yeast extract | 5,0000  |
| Glucose       | 20,0000 |
| Vitamin H     | 0,0001  |
| Agar          | 13,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good      |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Mossel et al. (1970) Appl. Bact. 35: 454.

### ÖNÖZ AGAR

A selective and differential medium for the isolation of enteric micro-organisms, especially *Salmonella* and some *Shigella* spp.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: ONO20500, 5 kg: ONO25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **81 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly! Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ONO30100, 500 ml: ONO30500</b> |
| Plated media:  | <b>55 mm: ONO50055, 90 mm: ONO50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                     |          |
|---------------------|----------|
| Peptones            | 16,50000 |
| Bile salts          | 3,82500  |
| L-Phenylalanine     | 5,00000  |
| Sucrose             | 13,00000 |
| Lactose             | 11,50000 |
| Sodium citrate      | 9,30000  |
| Sodium thiosulphate | 4,25000  |
| Ferric citrate      | 0,50000  |
| Magnesium sulphate  | 0,40000  |
| Metachrome yellow   | 0,47000  |
| Aniline blue        | 0,25000  |
| Neutral red         | 0,02200  |
| Brilliant green     | 0,00166  |
| Buffers             | 1,00000  |
| Agar                | 15,00000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                    | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, blue colonies        |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, black colonies with yellowish halo  |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Good, dark brown colonies with brown halo |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited                                 |                       |

**References:** Önöz (1978) Zbl. Bakt. Hyg. A240: 16.

### PEPTONE WATER, ALKALINE

A non-selective medium for the enrichment of *Vibrio* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PEW20500-22, 5 kg: PEW25000-22</b> |
| Colour:                | <b>Yellowish</b>                             |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>        |
| pH before autoclaving: | <b>8,4 (approx.) at 25 °C</b>                |

**Direction:** Suspend **20 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PEW30100-22, 500 ml: PEW30500-22</b> |
| Tubed media:   | <b>100 x 12 mm: PEW40010-22 (10 ml)</b>         |
| Colour:        | <b>Yellowish</b>                                |
| pH (at 25 °C): | <b>8,3 – 8,5</b>                                |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 10 |
| Sodium chloride | 10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains           | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------|------------------------|--------|-----------------------|
| <i>Vibrio cholerae</i> | ATCC 14033             | Good   |                       |

**References:** Shread et al. (1991) Soc. Gen. Microbiol. 8: 184.

### PEPTONE WATER, BUFFERED, PH EUR - USP

An enrichment medium for testing microbial contamination according to PH EUR (Buffered Sodium Chloride Peptone Solution pH 7.0 - Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PBE20500, 5 kg: PBE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **16 g** in one litre of distilled water and heat gently to dissolve the medium completely.

Surface-active agents or inactivators of antimicrobial agents may be added to this solution, such as: **TWEEN 80 Supplement (TWS80100)** 1 g/l to 10 g/l.

Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PBE30100, 500 ml: PBE30500</b> |
| Tubed media:   | <b>150 x 15 mm: PBE40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use. If addition of supplement [e. g. **TWEEN 80 Supplement (TWS80100)**] is necessary, complete according to the direction of dehydrated media.

### FORMULA in g/l

|                                |     |
|--------------------------------|-----|
| Peptones                       | 1,0 |
| Sodium chloride                | 4,3 |
| Potassium phosphate, monobasic | 3,6 |
| Sodium phosphate, dibasic      | 7,1 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good   |                       |

**References:** European Pharmacopoeia

### PEPTONE WATER, BUFFERED

A pre-enrichment medium for isolation of *Salmonella* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PWB20500, 5 kg: PWB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PWB30100, 500 ml: PWB30500</b> |
| Tubed media:   | <b>150 x 15 mm: PWB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|   |      |
|---|------|
| Peptones  | 10,0 |
| Sodium chloride   | 5,0  |
| Potassium phosphate, monobasic  | 1,5  |
| Sodium phosphate, dibasic (Equivalent to 9.0 g of Sodium phosphate dibasic dodecahydrate) | 3,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good   |                       |

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods  
ISO 6579, ISO 22964, ISO 6887, ISO 19250

## PEPTONE WATER, DOUBLE BUFFERED

A pre-enrichment medium for isolation of *Salmonella* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PWD20500, 5 kg: PWD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PWD30100, 500 ml: PWD30500</b> |
| Tubed media:   | <b>150 x 15 mm: PWD40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|  |    |
|--|----|
| Peptones   | 10 |
| Sodium chloride  | 5  |
| Potassium phosphate, monobasic   | 3  |
| Sodium phosphate, dibasic (Equivalent to 18.0 g of Sodium phosphate dibasic dodecahydrate) | 7  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good   |                       |

**References:** ISO 6579

## PEPTONE WATER

A liquid medium base for carbohydrate decomposition studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PEW20500, 5 kg: PEW25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **15 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the filter sterilised solution of the indicator (bromocresol purple or andrade) and sugar (10 g/l) to be examined to the medium.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PEW30100, 500 ml: PEW30500</b> |
| Tubed media:   | <b>100 x 12 mm: PEW40002 (2 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes and supplement according to the direction of dehydrated media. Supplement the tubed media according to the direction of the dehydrated media.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 10 |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth with 10 g/l lactose and BCP | Incubation time: 24 h |
|-------------------------------|------------------------|------------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Positive: Colour change to yellow  |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Negative: No colour change         |                       |

**References:** Cruikshank (1968) Med. Microbiology 11<sup>th</sup> ed.

## PEPTONE WATER WITH BROMOCRESOL PURPLE

A liquid medium base for carbohydrate decomposition studies.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PAW20500-00, 5 kg: PAW25000-00</b> |
| Colour:                | <b>Beige</b>                                 |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>        |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>                |

**Direction:** Suspend **15 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the filter sterilised solution of the sugar (10 g/l) to be examined to the medium.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | 100 ml: PAW30100-00, 500 ml: PAW30500-00 |
| Tubed media:   | 100 x 12 mm: PAW40002-00 (2 ml)          |
| Colour:        | Purple                                   |
| pH (at 25 °C): | 7,1 – 7,3                                |

**Direction:** Dispense the bottled media aseptically into test tubes and supplement according to the direction of the dehydrated media. Supplement the tubed media according to the direction of the dehydrated media.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 10,00 |
| Sodium chloride    | 5,00  |
| Bromocresol purple | 0,03  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth with 10 g/l lactose        | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Positive: Colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Negative: No colour change        |                       |

References: Cruikshank (1968) Med. Microbiology 11<sup>th</sup> ed.

### PERFRINGENS (OPSP) AGAR BASE

A selective and differential medium for the enumeration of *Clostridium perfringens*.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: POB20500, 5 kg: POB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,3 (approx.) at 25 °C          |

**Direction:** Suspend 23,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial each of Perfringens Selective Supplements, OPSP, A + B (POS80004)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: POB30100, 500 ml: POB30500 |
| Tubed media:   | 55 mm: POB50055, 90 mm: POB50090   |
| Colour:        | Yellowish                          |
| pH (25 °C):    | 7,2 – 7,4                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |      |
|-------------------------|------|
| Peptones                | 33,5 |
| Ferric ammonium citrate | 1,0  |
| Sodium metabisulphite   | 1,0  |
| Buffers                 | 1,5  |
| Agar                    | 10,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                   | Incubation temp: 44 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, black colonies (under anaerobic conditions) |                       |

References: Harmon et al. (1971) J. Appl. Microbiol. 22: 688.

Sahidi and Fergusson (1971) J. Appl. Microbiol. 21: 500.

### PERFRINGENS (TSC+SFP) AGAR BASE

A selective and differential medium for the enumeration and presumptive identification of *Clostridium perfringens*.

### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: PAB20500, 5 kg: PAB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,6 (approx.) at 25 °C          |

**Direction for TSC/SFP Agar:** Suspend 22,5 g in 470 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 25 ml of Sterile Egg Yolk Emulsion (EYE80025) and the contents of **one vial of Perfringens Selective Supplement, TSC (PSS80004)** or **Perfringens Selective Supplement, SFP (PFS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Egg Yolk Free TSC/SFP Agar:** Suspend 22,5 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Perfringens Selective Supplement, TSC (PSS80004)** or **Perfringens Selective Supplement, SFP (PFS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|  |  |
|--|--|
| Bottled media:                         | 100 ml: PAB30100, 500 ml: PAB30500     |
| Plated TSC Agar with egg yolk:         | 55 mm: PAB50055-01, 90 mm: PAB50090-01 |
| Plated TSC Agar, egg yolk free:        | 55 mm: PAB50055-02, 90 mm: PAB50090-02 |
| Plated SFP Agar with egg yolk:         | 55 mm: PAB50055-03, 90 mm: PAB50090-03 |
| Plated SFP Agar, egg yolk free:        | 55 mm: PAB50055-04, 90 mm: PAB50090-04 |
| Colour of bottled media:               | Yellowish                              |
| Colour of plated media with egg yolk:  | Yellowish, turbid                      |
| Colour of plated media, egg yolk free: | Yellowish, transparent                 |
| pH (25 °C)                             | 7,5 – 7,7                              |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |    |
|-------------------------|----|
| Casein peptone          | 15 |
| Soya peptone            | 5  |
| Yeast extract           | 5  |
| Sodium metabisulphite   | 1  |
| Ferric ammonium citrate | 1  |
| Agar                    | 18 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.



## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                   | Incubation temp: 44 °C | Growth   | Incubation time: 48 h |
|--------------------------------|------------------------|--|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, black colonies<br>(under anaerobic conditions) |                       |

**References:** Harmon et al. (1971) J. Appl. Microbiol. 22: 688.  
ISO 11290-1; ISO 7937; ISO 15213

### PHARMABIO® CULTURE MEDIA

See: PharmaBio Culture Media (page 139)

### PHARMACOPOEIA CULTURE MEDIA

See: Culture media for the method of Pharmacopoeias (page 141)

### PHENOL RED AGAR BASE

A solid medium base for carbohydrate decomposition studies.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PHA20500, 5 kg: PHA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the filter sterilised solution of the sugar (10 g/l) to be examined to the medium. Dispense aseptically into sterile test tubes and allow to cool in slanted position to form slant with deep butt.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PHA30100, 500 ml: PHA30500</b> |
| Tubed media:   | <b>100 x 12 mm: PHA40003</b>              |
| Colour:        | <b>Red</b>                                |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes and supplement according to the direction of the dehydrated media. Supplement the tubed media according to the direction of the dehydrated media.

#### FORMULA in g/l

|                 |       |
|-----------------|-------|
| Peptones        | 10,00 |
| Sodium chloride | 5,00  |
| Phenol red      | 0,02  |
| Agar            | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth<br>with 10 g/l lactose     | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Positive: Colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Negative: No colour change        |                       |

**References:** Ewing (1986) Edwards and Ewing's identification of Enterobacteriaceae, 4<sup>th</sup> ed.

### PHENOL RED BROTH BASE

A liquid medium base for carbohydrate decomposition studies.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PHB20500, 5 kg: PHB25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **15 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the filter sterilised solution of the sugar (10 g/l) to be examined to the medium.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PHB30100, 500 ml: PHB30500</b> |
| Tubed media:   | <b>100 x 12 mm: PHB40003 (3 ml)</b>       |
| Colour:        | <b>Red</b>                                |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into test tubes and supplement according to the direction of the dehydrated media. Supplement the tubed media according to the direction of the dehydrated media.

#### FORMULA in g/l

|                 |       |
|-----------------|-------|
| Peptones        | 10,00 |
| Sodium chloride | 5,00  |
| Phenol red      | 0,02  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth<br>with 10 g/l lactose     | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Positive: Colour change to yellow |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Negative: No colour change        |                       |

**References:** Ewing (1986) Edwards and Ewing's Identification of Enterobacteriaceae, 4<sup>th</sup> ed.

### PHENYLALANINE AGAR

A differential medium for the differentiation of bacteria on the basis of phenylalanine deamination.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PNA20500, 5 kg: PNA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **26 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PNA30100 500 ml: PNA30500</b>    |
| Tubed media:   | <b>100 x 12 mm: PNA40002 (2 ml – slant)</b> |
| Colour:        | <b>Yellowish</b>                            |
| pH (25 °C)     | <b>7,1 – 7,3</b>                            |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| L-Phenylalanine | 1  |
| Yeast extract   | 3  |
| Sodium chloride | 5  |
| Buffers         | 2  |
| Agar            | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|--------------------------|------------------------|---|-----------------------|
| <i>Proteus mirabilis</i> | ATCC 29906             | Positive, colour of PAD reagent change to green |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Negative, without colour change of PAD reagent  |                       |

**References:** Henrikson (1950) J. Bacteriol. 60: 225.

### PHENYLALANINE RHAMNOSE (FARH) AGAR

A differential medium for the differentiation of bacteria on the basis of phenylalanine deamination and rhamnose fermentation.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PRH20500, 5 kg: PRH25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **12 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: PRH30100 500 ml: PRH30500</b> |
| Tubed media:   | <b>100 x 12 mm: PRH40003 (3 ml)</b>      |
| Colour:        | <b>Green</b>                             |
| pH (25 °C):    | <b>6,6 – 6,8</b>                         |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                  |      |
|------------------|------|
| Peptones         | 1,00 |
| Rhamnose         | 1,00 |
| Sodium chloride  | 2,00 |
| L-Phenylalanine  | 1,00 |
| Bromothymol blue | 0,04 |
| Buffers          | 2,00 |
| Agar             | 5,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Reactions |     | Incubation time: 24 h |
|--------------------------|------------------------|-----------|-----|-----------------------|
|                          |                        | Rhamnose  | PAD |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | +         | –   |                       |
| <i>Proteus mirabilis</i> | ATCC 29906             | –         | +   |                       |

**References:** Henrikson (1950) J. Bacteriol. 60: 225.

### PHENYLETHYL ALCOHOL (PEA) AGAR BASE

A selective medium for the isolation of Gram-positive aerobe and anaerobe bacteria.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PED20500, 5 kg: PED25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Add **2,5 ml of Phenylethanol Supplement (PEE80030)**. Mix well and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Mix well before pouring.

### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: PED30100, 500 ml: PED30500</b> |
| Plated media:            | <b>55 mm: PED50055, 90 mm: PED50090</b>   |
| Colour of bottled media: | <b>Yellowish</b>                          |
| Colour of plated media:  | <b>Ruby red</b>                           |
| pH (at 25 °C):           | <b>7,2 – 7,4</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                   |        |
|-------------------|--------|
| Peptones          | 24,500 |
| Sodium chloride   | 5,000  |
| Anaerobe vitamins | 0,415  |
| Agar              | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|-------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good (under micro-aerobic conditions) |                       |
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions)     |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Inhibited                             |                       |

**References:** Brewer and Lilley (1953) J. Am. Pharm. Assoc. 42: 6.

### PIKE BROTH

A selective medium for the cultivation of enterococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PBB20500, 5 kg: PBB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **31 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PBB30100, 500 ml: PBB30500</b> |
| Tubed media:   | <b>150 x 15 mm: PBB40010 (10 ml)</b>      |
| Colour:        | <b>Purplish</b>                           |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|              |        |
|--------------|--------|
| Peptones     | 30,700 |
| Glucose      | 0,200  |
| Sodium azide | 0,065  |
| Violet red   | 0,002  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 51299             | Good      |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited |                       |

**References:** Pike (1944) Proc. Soc. Exp. Biol. and Med. 57: 187.

## PLATE COUNT AGAR

A standard medium for the enumeration of total viable micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PCA20500, 5 kg: PCA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **23,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PCA30100, 500 ml: PCA30500</b> |
| Plated media:  | <b>55 mm: PCA50055, 90 mm: PCA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|               |      |
|---------------|------|
| Peptones      | 5,0  |
| Yeast extract | 2,5  |
| Glucose       | 1,0  |
| Agar          | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** ISO 4833

## PLATE COUNT AGAR No.2

A standard medium for the enumeration of total viable micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PAT20500, 5 kg: PAT25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **24 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PAT30100, 500 ml: PAT30500</b> |
| Plated media:  | <b>55 mm: PAT50055, 90 mm: PAT50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|              |    |
|--------------|----|
| Tryptone     | 5  |
| Beef extract | 3  |
| Glucose      | 1  |
| Agar         | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** APHA (1985) Standard Methods for the Examination of Water and Wastewater, 15<sup>th</sup> ed.

NEW PRODUCT

## PLATE COUNT AGAR, ISO 6222

A standard medium for the enumeration of total viable micro-organisms from water according to ISO 6222.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PCW20500, 5 kg: PCW25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **24 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PCW30100, 500 ml: PCW30500</b> |
| Plated media:  | <b>55 mm: PCW50055, 90 mm: PCW50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|               |    |
|---------------|----|
| Peptones      | 6  |
| Yeast extract | 3  |
| Agar          | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** ISO 6222

## PLATE COUNT BROTH

A non-selective medium for the enumeration of total viable micro-organisms with MPN procedure.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PCB20500, 5 kg: PCB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **9 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PCB30100, 500 ml: PCB30500</b> |
| Tubed media:   | <b>150 x 15 mm: PCB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|          |   |
|----------|---|
| Peptones | 8 |
| Glucose  | 1 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

## PLATE COUNT SKIM MILK AGAR

A non-selective medium for the enumeration of viable micro-organisms in milk and dairy products.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PCS20500, 5 kg: PCS25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **23 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PCS30100, 500 ml: PCS30500</b> |
| Plated media:  | <b>55 mm: PCS50055, 90 mm: PCS50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |      |
|---------------------|------|
| Tryptone            | 5,0  |
| Yeast extract       | 2,5  |
| Glucose monohydrate | 1,0  |
| Skim milk powder    | 1,0  |
| Agar                | 13,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** APHA (1985) Standard Methods for the Examination of Dairy Products, 15<sup>th</sup> ed. ISO 6610

## POTATO DEXTROSE AGAR, PH EUR - USP

A selective medium for the detection, isolation and enumeration of yeasts and moulds according to PH EUR (Potato Dextrose Agar – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PDA20500, 5 kg: PDA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **39 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 10 minutes. If adjustment of pH is necessary to pH 3,5, cool to 55 °C and add aseptically **Lactic Acid Solution (LAS80100)** to the medium in the necessary quantity (approx. 10 ml). Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.  
Once acidified with lactic acid, the medium should not be reheated.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PDA30100, 500 ml: PDA30500</b> |
| Plated media:  | <b>55 mm: PDA50055, 90 mm: PDA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>5,5 – 5,7</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                |    |
|----------------|----|
| Dextrose       | 20 |
| Potato extract | 4  |
| Agar           | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                       | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|------------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>            | ATCC 10231             | Good      |                       |
| <i>Bacillus cereus</i> (at pH=3.5) | ATCC 11778             | Inhibited |                       |

**References:** European Pharmacopoeia

## POTATO DEXTROSE BROTH

A selective medium for the cultivation of yeasts and moulds.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PDB20500, 5 kg: PDB25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous powder</b>              |
| pH before autoclaving: | <b>5,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **24 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PDB30100, 500 ml: PDB30500</b> |
| Tubed media:   | <b>150 x 15 mm: PDB40010 (10 ml)</b>      |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>5,0 – 5,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final container. Media in tubes are ready to use.

### FORMULA in g/l

|                |    |
|----------------|----|
| Potato extract | 4  |
| Dextrose       | 20 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed.

## PSEUDOMONAS ISOLATION AGAR BASE

A selective medium for isolation and identification of *Pseudomonas aeruginosa*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: PIA20500, 5 kg: PIA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water. Add **20 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: PIA30100, 500 ml: PIA30500</b> |
| Plated media:  | <b>55 mm: PIA50055, 90 mm: PIA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |        |
|--------------------|--------|
| Peptones           | 20,600 |
| Potassium sulphate | 10,000 |
| Magnesium chloride | 1,400  |
| Irganan            | 0,025  |
| Agar               | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good growth, fluorescent green colonies |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited                               |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

## PURPLE LACTOSE AGAR BASE, MODIFIED

A differential medium for the isolation, enumeration and presumptive identification of micro-organisms from urine.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: BLA20500, 5 kg: BLA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **46 g** in 980 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **20 ml of sterile defibrinated blood**. Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: BLA30100, 500 ml: BLA30500</b> |
| Plated media:  | <b>55 mm: BLA50055, 90 mm: BLA50090</b>   |
| Colour:        | <b>Purple</b>                             |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 20,000 |
| L-Cystine           | 0,100  |
| Lactose             | 10,000 |
| Ferrous citrate     | 0,200  |
| Sodium thiosulphate | 0,200  |
| Esculin             | 0,500  |
| Bromocresol Purple  | 0,025  |
| Agar                | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Good, yellow colonies                             |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, blue colonies with black centre             |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Moderate, small yellow colonies with black centre |                       |

### R2A AGAR, PH EUR

A non-selective medium for the bacteriological examination of water according to PH EUR (Agar Medium S).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: R2A20500, 5 kg: R2A25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **18 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: R2A30100, 500 ml: R2A30500</b> |
| Plated media:  | <b>55 mm: R2A50055, 90 mm: R2A50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                               |        |
|-------------------------------|--------|
| Proteose peptone              | 0,500  |
| Casein peptone                | 0,500  |
| Yeast extract                 | 0,500  |
| Glucose                       | 0,500  |
| Starch soluble                | 0,500  |
| Sodium pyruvate               | 0,300  |
| Magnesium sulphate, anhydrous | 0,024  |
| Potassium phosphate, dibasic  | 0,300  |
| Agar                          | 14,900 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** European Pharmacopoeia

### R2A BROTH

A non-selective medium for the bacteriological examination of water.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: R2B20500, 5 kg: R2B25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **3,2 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: R2B30100, 500 ml: R2B30500</b> |
| Tubed media:   | <b>150 x 15 mm: R2B40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                               |       |
|-------------------------------|-------|
| Peptones                      | 1,500 |
| Glucose                       | 0,500 |
| Starch soluble                | 0,500 |
| Sodium pyruvate               | 0,300 |
| Magnesium sulphate, anhydrous | 0,024 |
| Buffers                       | 0,300 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** Stark and McCoy (1938) Zentralb. Bakt. Parasit. Infekt. Hyg. Abt. 2. 98: 201.

### RAPPAPORT-VASSILIADIS (MSRV) MEDIUM BASE

A semi-solid selective medium for the detection of motile *Salmonella* spp.

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: MSR20500, 5 kg: MSR25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>5,5 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Fill up **20 ml** of **DIASALM-MSRV Magnesium Chloride Solution (DSM80500)** to 500 ml with distilled water. Suspend **10,5 g** of **dehydrated medium** and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial** of **Novobiocin (10 mg) Supplement (DSN80004-10)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: MSR30100, 500 ml: MSR30500</b> |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                               |        |
|-------------------------------|--------|
| Peptones                      | 9,180  |
| Sodium chloride               | 7,340  |
| Magnesium chloride, anhydrous | 10,930 |
| Malachite green               | 0,037  |
| Buffers                       | 1,470  |
| Agar                          | 3,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth            | Incubation time: 24 h |
|-------------------------------|------------------------|-------------------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, motile zone |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Inhibited         |                       |

**References:** De Smedt et al. (1986) J. Food Prot. 48: 510.

### RAPPAPORT-VASSILIADIS BROTH BASE, PH EUR - USP

A selective enrichment medium for the isolation of salmonellae according to PH EUR (Rappaport-Vassiliadis Salmonella Enrichment Broth – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RVB20500, 5 kg: RVB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,2 (approx.) at 25 °C</b>          |

**Direction:** Fill up **27 ml** of **Rappaport-Vassiliadis Magnesium Chloride Solution (RMG81000)** to one litre with distilled water. Suspend **13,5 g** of **dehydrated medium** and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RVB30100, 500 ml: RVB30500</b> |
| Tubed media:   | <b>150 x 15 mm: RVB40010 (10 ml)</b>      |
| Colour:        | <b>Green</b>                              |
| pH (at 25 °C): | <b>5,1 – 5,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                                |        |
|--------------------------------|--------|
| Soya peptone                   | 4,500  |
| Sodium chloride                | 8,000  |
| Magnesium chloride, anhydrous  | 13,580 |
| Malachite green                | 0,036  |
| Potassium phosphate, dibasic   | 0,400  |
| Potassium phosphate, monobasic | 0,600  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** Rappaport et al. (1956) J. Clin. Path. 9: 261.  
European Pharmacopoeia

### REINFORCED CLOSTRIDIAL (RCM) AGAR

A differential medium for the cultivation and enumeration of anaerobes, especially *Clostridium* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RCA20500, 5 kg: RCA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **51 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RCA30100, 500 ml: RCA30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile final containers.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 23,0 |
| L-Cysteine      | 0,5  |
| Starch soluble  | 1,0  |
| Glucose         | 5,0  |
| Sodium chloride | 5,0  |
| Sodium acetate  | 3,0  |
| Agar            | 13,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 44 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Hirsh and Grinstead (1954) J. Dairy Res. 21: 101.

## II. DEHYDRATED CULTURE MEDIA

### REINFORCED CLOSTRIDIAL (RCM-DRCM) MEDIUM BASE, PH EUR – USP

A semi-solid medium for the cultivation and enumeration of anaerobes, especially *Clostridium* spp. according to PH EUR (Medium P – Reinforced Media for Clostridia – Harmonised).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RCM20500, 5 kg: RCM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction for RCM Medium:** Suspend **38 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

**Direction for DRCM Medium:** Suspend **19 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121°C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030)** and **10 drops (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030)**. Mix well and dispense aseptically into sterile final containers.

#### Prepared media

|                   |   |
|-------------------|---|
| Bottled media:    | <b>100 ml: RCM30100, 500 ml: RCM30500</b>         |
| Tubed DRCM media: | <b>150 x 15 mm: RCM40010 (10 ml)</b>              |
| Tubed RCM media:  | <b>150 x 15 mm: RCM40010-01 (10 ml)</b>           |
| Colour:           | <b>Yellowish, with red colour ring on the top</b> |
| pH (at 25 °C):    | <b>6,7 – 6,9</b>                                  |

**Direction:** If necessary, supplement may be added to the bottled media according to the direction of the dehydrated media. Dispense aseptically into sterile final containers. Media in tubes are ready to use.

#### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a red colour of resazurin near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

#### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 10,000 |
| Beef extract        | 10,000 |
| Yeast extract       | 3,000  |
| L-Cysteine          | 0,500  |
| Glucose monohydrate | 5,000  |
| Starch soluble      | 1,000  |
| Sodium chloride     | 5,000  |
| Sodium acetate      | 3,000  |
| Resazurin           | 0,001  |
| Agar                | 0,500  |

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                                     | Incubation temp: 44 °C | Growth  | Incubation time: 48 h |
|--|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> ATCC 13124 (RCM)  |                        | Good (under anaerobic conditions)             |                       |
| <i>Clostridium perfringens</i> ATCC 13124 (DRCM) |                        | Good, blackening (under anaerobic conditions) |                       |

**References:** European Pharmacopoeia 5.6  
Hirsh and Grinstead (1954) J. Dairy Res. 21: 101.  
Gibbs and Freame (1965) J. Appl. Bact. 28: 95.

### REINFORCED CLOSTRIDIAL DIFFERENTIAL BROTH

A differential medium for the cultivation and enumeration of anaerobes, especially *Clostridium* spp. by the MPN method.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RCD20500, 5 kg: RCD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38,5 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RCD30100, 500 ml: RCD30500</b>         |
| Tubed media:   | <b>150 x 15 mm: RCD40010 (10 ml)</b>              |
| Colour:        | <b>Yellowish, with red colour ring on the top</b> |
| pH (at 25 °C): | <b>6,7 – 6,9</b>                                  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### Warning!

The media may be used until approximately 30% of the medium (top layer) has been oxidized, as indicated by a red colour of resazurin near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

#### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Peptones                | 23,000 |
| L-Cysteine              | 0,500  |
| Glucose                 | 5,000  |
| Starch soluble          | 1,000  |
| Sodium chloride         | 5,000  |
| Sodium acetate          | 3,000  |
| Ferric ammonium citrate | 0,500  |
| Sodium metabisulphite   | 0,500  |
| Resazurin               | 0,002  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at 2–8 °C, but no longer than 2 weeks.

#### Quality Control:

| Test strains                              | Incubation temp: 44 °C | Growth  | Incubation time: 48 h |
|---|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> ATCC 13124 |                        | Good, colour change to black (under anaerobic conditions) |                       |

**References:** Gibbs and Freame (1965) J. Appl. Bact. 28: 95.

### RINGER SOLUTION, ¼ STRENGTH

A sterile isotonic diluent for bacteriological specimens.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RIS20500, 5 kg: RIS25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **2,5 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.



## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RIS30100, 500 ml: RIS30500</b> |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers.

### FORMULA in g/l

|                    |      |
|--------------------|------|
| Sodium chloride    | 2,25 |
| Calcium chloride   | 0,10 |
| Potassium chloride | 0,10 |
| Sodium bicarbonate | 0,05 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

**References:** Davis (1956) Lab. Cont. of Dairy Plant.

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                     | Incubation temp: 30 °C | Growth    | Incubation time: 72 h            |
|----------------------------------|------------------------|-----------|----------------------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good      | (under micro-aerobic conditions) |
| <i>Staphylococcus aureus</i>     | ATCC 29213             | Inhibited |                                  |

**References:** Rogosa et al. (1951) J. Appl. Bact. 62: 132.

### ROGOSA AGAR

A selective medium for the isolation and enumeration of *Lactobacillus* spp.

### Dehydrated media

|                              |   |
|------------------------------|---|
| Code Number:                 | <b>500 g: ROA20500</b>                                |
|                              | <b>packaging: 500 g agar base + 1 l salt solution</b> |
|                              | <b>5 kg: ROA25000</b>                                 |
|                              | <b>packaging: 5 kg agar base + 10 l salt solution</b> |
| Appearance of agar base:     | <b>Yellowish homogeneous hygroscopic powder</b>       |
| Appearance of salt solution: | <b>Water clear solution</b>                           |
| Final pH:                    | <b>6,2 (approx.) at 25 °C</b>                         |

**Direction:** Fill up **100 ml of Rogosa Salt Solution (RSS81000)** to one litre with distilled water. Suspend **50 g of agar base** and heat with frequent agitation until the medium boils well (2–3 min.). If adjustment of pH is necessary to pH 5.4 (approx.), cool to 55 °C and add aseptically glacial acetic acid to the medium in the necessary quantity (1,3 ml approx.). Mix well before pouring.

### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

Once acidified with glacial acetic acid, the medium should not be reheated.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: ROA30100, 500 ml: ROA30500</b> |
| Plated media:  | <b>55 mm: ROA50055, 90 mm: ROA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,1 – 6,3</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA FOR ONE LITRE OF THE COMPLETE MEDIUM

|                    |          |
|--------------------|----------|
| Peptones           | 15,200 g |
| Glucose            | 20,000 g |
| Sodium acetate     | 17,000 g |
| Ammonium citrate   | 2,000 g  |
| Magnesium sulphate | 0,575 g  |
| Manganese sulphate | 0,120 g  |
| Ferrous sulphate   | 0,034 g  |
| TWEEN 80           | 1,000 ml |
| Buffers            | 6,000 g  |
| Agar               | 20,000 g |

### ROSE BENGAL CHLORAMPHENICOL AGAR

A selective medium for the enumeration of yeasts and moulds.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RBA20500, 5 kg: RBA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **31 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RBA30100, 500 ml: RBA30500</b> |
| Plated media:  | <b>55 mm: RBA50055, 90 mm: RBA50090</b>   |
| Colour:        | <b>Rose red</b>                           |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Peptones           | 5,00  |
| Glucose            | 10,00 |
| Magnesium sulphate | 0,50  |
| Chloramphenicol    | 0,10  |
| Rose bengal        | 0,05  |
| Buffers            | 1,00  |
| Agar               | 14,40 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      | rose red colonies     |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** APHA (1978) Standard Method for the Examination of Dairy Products. 14<sup>th</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### ROSE BENGAL DICHLORAN AGAR

A selective medium for the enumeration of yeasts and moulds. Dichloran enhances the selectivity of the medium.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RBD20500, 5 kg: RBD25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **31 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RBD30100, 500 ml: RBD30500</b> |
| Plated media:  | <b>55 mm: RBD50055, 90 mm: RBD50090</b>   |
| Colour:        | <b>Rose red</b>                           |
| pH (25 °C):    | <b>5,5 – 5,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                                |        |
|--------------------------------|--------|
| Peptones                       | 5,000  |
| Glucose                        | 10,000 |
| Magnesium sulphate             | 0,500  |
| Chloramphenicol                | 0,100  |
| Dichloran                      | 0,002  |
| Rose bengal                    | 0,025  |
| Potassium phosphate, monobasic | 1,000  |
| Agar                           | 14,400 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth                  | Incubation time: 48 h |
|---------------------------------|------------------------|-------------------------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good, rose red colonies |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited               |                       |

**References:** APHA (1978) Standard Method for the Examination of Dairy Products. 14<sup>th</sup> ed. ISO 21527-1

### RPMI MOPS AGAR BASE

A standard medium for the antimycotical susceptibility testing with Etest.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RGM20500, 5 kg: RGM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **17,5 g** in 400 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Meanwhile heat gently **100 ml of RPMI MOPS Solution, Sterile (RGS80100)** to 50 °C. Add the supplement aseptically to the agar base. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: RGM30100, 500 ml: RGM30500</b> |
| Plated media:  | <b>55 mm: RGM50055, 90 mm: RGM50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|         |    |
|---------|----|
| Glucose | 20 |
| Agar    | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains            | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good   |                       |

**References:** www.abbiodisk.com

### RUSSEL AGAR

A differential medium for the differentiation of bacteria on the basis of carbohydrate fermentation and hydrogen sulphite production.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: RUS20500, 5 kg: RUS25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **38 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position to form slants with deep butt.

#### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: RUS30100, 500 ml: RUS30500</b>  |
| Tubed media:   | <b>150 x 15 mm: RUS40006 (6 ml, slant with deep butt)<br/>100 x 12 mm: RUS40003 (3 ml, slant with deep butt)</b> |
| Colour:        | <b>Pinkish</b>   |
| pH (at 25 °C): | <b>7,2 – 7,4</b>   |

**Direction:** Dispense the melted bottled media aseptically into test tubes. Allow to cool in slanted position to form slant with deep butt. Media in tubes are ready to use.

#### FORMULA in g/l

|                     |      |
|---------------------|------|
| Peptones            | 8,4  |
| Lactose             | 10,0 |
| Sucrose             | 1,0  |
| Glucose             | 0,5  |
| Sodium chloride     | 4,0  |
| Ferrous sulphate    | 0,5  |
| Sodium thiosulphate | 0,5  |
| Andrade indicator   | 0,1  |
| Buffers             | 1,0  |
| Agar                | 12,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions  |            |     |                  | Incubation time: 24 h |  |
|-------------------------------|------------------------|------------|------------|-----|------------------|-----------------------|--|
|                               |                        | Slant      | Butt       | Gas | H <sub>2</sub> S |                       |  |
| <i>Escherichia coli</i>       | ATCC 25922             | claret     | claret     | +   | –                |                       |  |
| <i>Salmonella typhimurium</i> | ATCC 14028             | red        | un-changed | +   | +                |                       |  |
| <i>Proteus mirabilis</i>      | ATCC 29906             | pink       | un-changed | +   | +                |                       |  |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | un-changed | un-changed | –   | –                |                       |  |

**References:** Russel and Krumwiede (1935)

### SABOURAUD CHLORAMPHENICOL GENTAMICIN TETRAZOLIUM AGAR

A selective medium for the isolation and differentiation of *Candida* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: STG20500, 5 kg: STG25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

#### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: STG30100, 500 ml: STG30500</b>  |
| Plated media:  | <b>55 mm: STG50055, 90 mm: STG50090</b>    |
| Tubed media:   | <b>100 x 15 mm: STG40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>6,3 – 6,5</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes and tubes are ready to use.

#### FORMULA in g/l

|                                |       |
|--------------------------------|-------|
| Sabouraud Dextrose (2%) Agar   | 44,60 |
| Chloramphenicol                | 0,25  |
| Gentamicin                     | 0,10  |
| Triphenyl tetrazolium chloride | 0,05  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|-------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good      |                       |
| <i>Escherichia coli</i> | ATCC 25922             | Inhibited |                       |

**References:** Pagano et al. (1958) Antibiotics Ann. 6: 137.

### SABOURAUD CHLORAMPHENICOL ACTIDION AGAR

A selective medium for the isolation of dermatophytes from specimens containing mixed flora.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SCA20500, 5 kg: SCA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

#### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SCA30100, 500 ml: SCA30500</b>  |
| Plated media:  | <b>55 mm: SCA50055, 90 mm: SCA50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SCA40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>6,3 – 6,5</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes and tubes are ready to use.

#### FORMULA in g/l

|                              |      |
|------------------------------|------|
| Sabouraud Dextrose (2%) Agar | 44,0 |
| Chloramphenicol              | 0,5  |
| Cycloheximide                | 0,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Inhibited |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD CHLORAMPHENICOL AGAR, PH EUR

A selective medium for the isolation of all species of fungi according to PH EUR (Agar Medium C – Sabouraud Glucose Agar with Chloramphenicol).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SCE20500, 5 kg: SCE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **65 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

#### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SCE30100, 500 ml: SCE30500</b>  |
| Plated media:  | <b>55 mm: SCE50055, 90 mm: SCE50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SCE40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>5,5 – 5,7</b>                           |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|                     |       |
|---------------------|-------|
| Casein peptone      | 5,00  |
| Meat peptone        | 5,00  |
| Glucose monohydrate | 40,00 |
| Chloramphenicol     | 0,05  |
| Agar                | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Inhibited |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.  
European Pharmacopoeia

### SABOURAUD CHLORAMPHENICOL AGAR

A selective medium for the cultivation of all species of fungi, particularly dermatophytes from contaminated specimens.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SCH20500, 5 kg: SCH25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SCH30100, 500 ml: SCH30500</b>  |
| Plated media:  | <b>55 mm: SCH50055, 90 mm: SCH50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SCH40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>6,3 – 6,5</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|                              |      |
|------------------------------|------|
| Sabouraud Dextrose (2%) Agar | 44,5 |
| Chloramphenicol              | 0,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Emmons et al. (1977) Medical Mycology

### SABOURAUD CHLORAMPHENICOL BROTH

A selective medium for the cultivation of all species of fungi, particularly dermatophytes from contaminated specimens.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SCC20500, 5 kg: SCC25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SCC30100, 500 ml: SCC30500</b> |
| Tubed media:   | <b>150 x 15 mm: SCC40010 (10 ml)</b>      |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,3 – 6,5</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 10,0 |
| Glucose         | 19,5 |
| Chloramphenicol | 0,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** European Pharmacopoeia

### SABOURAUD CHLORAMPHENICOL AGAR

A selective medium for the cultivation of all species of fungi, particularly dermatophytes from contaminated specimens.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SCG20500, 5 kg: SCG25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well and pour into Petri-dishes or tubes (cooling in slanted position).

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SCG30100, 500 ml: SCG30500</b>  |
| Plated media:  | <b>55 mm: SCG50055, 90 mm: SCG50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SCG40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>6,7 – 6,9</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes (cooling in slanted position). Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|                              |       |
|------------------------------|-------|
| Sabouraud Dextrose (2%) Agar | 44,90 |
| Chloramphenicol              | 0,05  |
| Gentamicin                   | 0,01  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good      |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD DEXTROSE (1%) MALTOSE (1%) AGAR

A selective medium for the cultivation yeasts and moulds.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SDM20500, 5 kg: SDM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SDM30100, 500 ml: SDM30500</b>  |
| Plated media:  | <b>55 mm: SDM50055, 90 mm: SDM50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SDM40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>5,3 – 5,5</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes. Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 10 |
| Glucose  | 10 |
| Maltose  | 10 |
| Agar     | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD DEXTROSE (2%) AGAR

A non-selective medium for the cultivation and isolation of pathogenic and non-pathogenic fungi, particularly dermatophytes.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SDD20500, 5 kg: SDD25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SDD30100, 500 ml: SDD30500</b>  |
| Plated media:  | <b>55 mm: SDD50055, 90 mm: SDD50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SDD40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>6,3 – 6,5</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes. Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 10 |
| Glucose  | 20 |
| Agar     | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** Emmons et al. (1977) Medical Mycology

### SABOURAUD DEXTROSE (4%) AGAR, PH EUR - USP

A selective medium for the cultivation and isolation of pathogenic and non-pathogenic fungi, particularly dermatophytes according to PH EUR (Sabouraud Dextrose Agar – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SDA20500, 5 kg: SDA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **65 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SDA30100, 500 ml: SDA30500</b>  |
| Plated media:  | <b>55 mm: SDA50055, 90 mm: SDA50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SDA40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>5,5 – 5,7</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes. Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|                     |    |
|---------------------|----|
| Casein peptone      | 5  |
| Meat peptone        | 5  |
| Glucose monohydrate | 40 |
| Agar                | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.  
European Pharmacopoeia

### SABOURAUD DEXTROSE BROTH, PH EUR - USP

A sterility test medium for the detection yeast and moulds according to PH EUR (Sabouraud Dextrose Broth – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SDB20500, 5 kg: SDB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous powder</b>              |
| pH before autoclaving: | <b>5,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SDB30100, 500 ml: SDB30500</b> |
| Tubed media:   | <b>150 x 15 mm: SDB40010 (10 ml)</b>      |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>5,0 – 5,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final container. Media in tubes are ready to use.

### FORMULA in g/l

|                |    |
|----------------|----|
| Casein peptone | 5  |
| Meat peptone   | 5  |
| Glucose        | 20 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** European Pharmacopoeia

### SABOURAUD MALTOSÉ (4%) AGAR

A selective medium for the cultivation of yeasts and moulds.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SMA20500, 5 kg: SMA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **65 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |  |
|----------------|--|
| Bottled media: | <b>100 ml: SMA30100, 500 ml: SMA30500</b>  |
| Plated media:  | <b>55 mm: SMA50055, 90 mm: SMA50090</b>    |
| Tubed media:   | <b>100 x 15 mm: SMA40005 (5 ml, slant)</b> |
| Colour:        | <b>Yellowish</b>                           |
| pH (25 °C):    | <b>5,5 – 5,7</b>                           |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes or tubes. Media in Petri-dishes and tubes are ready to use.

### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 10 |
| Maltose  | 40 |
| Agar     | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated and tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i>         | ATCC 10231             | Good   |                       |
| <i>Aspergillus brasiliensis</i> | ATCC 16404             | Good   |                       |

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SALMONELLA SHIGELLA (SS) AGAR, MODIFIED

A selective and differential medium for the isolation of Gram-negative enteric micro-organisms. The medium supplemented with phenylalanine is suitable to distinguish *Salmonella* spp. from *Proteus* spp.

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: SSA20500, 5 kg: SSA25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,0 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **66 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SSA30100, 500 ml: SSA30500</b> |
| Plated media:  | <b>55 mm: SSA50055, 90 mm: SSA50090</b>   |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |         |
|---------------------|---------|
| Peptones            | 12,0000 |
| Bile salts          | 8,5000  |
| L-Phenylalanine     | 1,0000  |
| Lactose             | 10,0000 |
| Sodium citrate      | 10,0000 |
| Sodium thiosulphate | 8,5000  |
| Ferric citrate      | 1,0000  |
| Neutral red         | 0,0250  |
| Brilliant green     | 0,0003  |
| Agar                | 15,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, rose-red colonies  |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, colourless colonies with shiny black centre without brown halo          |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Good, without swarming, brown colonies with matt black centre with brown halo |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited   |                       |

**References:** Leifson (1935) J. Path. Bact. 40: 581.

## SALT BROTH

A differential medium for the differentiation of bacteria on the basis of their salt tolerance.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SBR20500, 5 kg: SBR25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **85 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SBR30100, 500 ml: SBR30500</b> |
| Tubed media:   | <b>100 x 12 mm: SBR40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 20 |
| Sodium chloride | 65 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                  | Incubation time: 24 h |
|------------------------------|------------------------|-------------------------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Positive, turbid growth |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Negative, no growth     |                       |

## SCHAEDLER AGAR

A non-selective medium for the isolation and cultivation of anaerobe bacteria.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SAA20500, 5 kg: SAA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **42 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If addition of blood is necessary, cool to 50 °C and add aseptically **50 ml of sterile defibrinated blood**. Mix well before pouring.

### Prepared media

|                                   |   |
|-----------------------------------|---|
| Bottled media:                    | <b>100 ml: SAA30100, 500 ml: SAA30500</b> |
| Plated media:                     | <b>55 mm: SAA50055, 90 mm: SAA50090</b>   |
| Colour of blood free media:       | <b>Yellowish</b>                          |
| Colour of media containing blood: | <b>Ruby red</b>                           |
| pH (at 25 °C):                    | <b>7,4 – 7,8</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. If necessary, blood may be added to the melted media according to the direction of the dehydrated media. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 18,000 |
| Glucose                                 | 5,800  |
| L-Cysteine                              | 0,400  |
| Sodium chloride                         | 1,700  |
| Vitamins                                | 0,011  |
| Buffers (TRIS and phosphates)           | 3,100  |
| Agar                                    | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions) |                       |
| <i>Clostridium pefringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Schaedler et al. (1965) J. Exp. Med. 122: 59.

## II. DEHYDRATED CULTURE MEDIA

### SCHAEDLER BROTH

A non-selective enrichment medium for the general cultivation of anaerobe bacteria.

#### Dehydrated media

|                        |                                 |
|------------------------|---------------------------------|
| Code Number:           | 500 g: SAB20500, 5 kg: SAB25000 |
| Colour:                | Yellowish                       |
| Appearance:            | Homogeneous hygroscopic powder  |
| pH before autoclaving: | 7,6 (approx.) at 25 °C          |

**Direction:** Suspend 29 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: SAB30100, 500 ml: SAB30500 |
| Tubed media:   | 150 x 15 mm: SAB40010 (10 ml)      |
| Colour:        | Yellowish                          |
| pH (at 25 °C): | 7,4 – 7,8                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 18,000 |
| L-Cysteine                              | 0,400  |
| Glucose                                 | 5,800  |
| Sodium chloride                         | 1,700  |
| Vitamins                                | 0,011  |
| Buffers (TRIS and phosphates)           | 3,100  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions) |                       |
| <i>Clostridium pefringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Schaedler et al. (1965) J. Exp. Med. 122: 59.

### SELENITE BROTH BASE

A selective enrichment medium for isolation of *Salmonella* spp.

#### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: SEB20500, 5 kg: SEB25000 |
| Colour:      | Yellowish                       |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 7,0 (approx.) at 25 °C          |

**Direction:** Dissolve 4 g of Selenite Supplement (SES80110) in one litre of distilled water. Suspend 19 g of dehydrated medium and heat gently to dissolve the medium completely. Dispense into final containers. In case the medium is not getting used on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly. The presence of a small amount of pinkish or brownish precipitate is not detrimental.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |                                    |
|----------------|------------------------------------|
| Bottled media: | 100 ml: SEB30100, 500 ml: SEB30500 |
| Tubed media:   | 150 x 15 mm: SEB40010 (10 ml)      |
| Colour:        | Pinkish                            |
| pH (at 25 °C): | 6,9 – 7,1                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 5  |
| Lactose  | 4  |
| Buffers  | 10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** Leifson (1936) Am. J. Hyg. 24: 423.

### SELENITE CYSTINE BROTH BASE, USP

A selective enrichment medium for the isolation of *Salmonella* spp. according to USP. L-Cysteine improves the recovery of salmonellae.

#### Dehydrated media

|              |                                 |
|--------------|---------------------------------|
| Code Number: | 500 g: SCB20500, 5 kg: SCB25000 |
| Colour:      | Yellowish                       |
| Appearance:  | Homogeneous hygroscopic powder  |
| Final pH:    | 7,0 (approx.) at 25 °C          |

**Direction:** Dissolve 4 g of Selenite Supplement (SES80110) in one litre of distilled water. Suspend 19 g of dehydrated medium and heat gently to dissolve the medium completely. Dispense into final containers. In case the medium is not getting used on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly. The presence of a small amount of pinkish or brownish precipitate is not detrimental.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | 100 ml: SCB30100, 500 ml: SCB30500                            |
| Tubed media:   | 100 x 15 mm: SCB40005 (5 ml)<br>150 x 15 mm: SCB40010 (10 ml) |
| Colour:        | Pinkish   |
| pH (at 25 °C): | 6,9 – 7,1   |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|           |       |
|-----------|-------|
| Peptones  | 5,00  |
| Lactose   | 4,00  |
| L-Cystine | 0,01  |
| Buffers   | 10,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.



## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** North and Bartam (1953) Appl. Microbiol. 1: 130.  
United States Pharmacopoeia

### SELENITE CYSTINE MANNITOL BROTH BASE

A selective enrichment medium for the isolation of *Salmonella* spp. Addition of L-Cystine and replacement of lactose with mannitol improves the recovery of salmonellae.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: SCM20500, 5 kg: SCM25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Dissolve **4 g of Selenite Supplement (SE580110)** in one litre of distilled water. Suspend **19 g** of dehydrated medium and heat gently to dissolve the medium completely. Dispense into final containers. In case the medium is not getting used on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly. The presence of a small amount of pinkish or brownish precipitate is not detrimental.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SCM30100, 500 ml: SCM30500</b>                             |
| Tubed media:   | <b>100 x 15 mm: SCM40005 (5 ml)<br/>150 x 15 mm: SCM40010 (10 ml)</b> |
| Colour:        | <b>Pinkish</b>  |
| pH (at 25 °C): | <b>6,9 – 7,1</b>  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|           |       |
|-----------|-------|
| Peptones  | 5,00  |
| Mannitol  | 4,00  |
| L-Cystine | 0,01  |
| Buffers   | 10,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** Hobbs and Allison (1945) Mon. Bull. Min. Hlth Pub. Hlth Lab. Serv. 4: 12.

### SHIGELLA BROTH BASE

A selective medium for the selective enrichment of *Shigella* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SHB20500, 5 kg: SHB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **15 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Shigella Selective Supplement (SBS80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SHB30100, 500 ml: SHB30500</b> |
| Tubed media:   | <b>150 x 15 mm: SHB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 20 |
| Glucose         | 1  |
| Sodium chloride | 5  |
| Buffers         | 4  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Shigella sonnei</i>       | ATCC 25931             | Good      |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited |                       |

**References:** FDA (1988) Bacteriological Analytical Manual, 8<sup>th</sup> ed.

### SIM MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of their motility, hydrogen sulphite and indole production.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SIM20500, 5 kg: SIM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,7 (approx.) at 25 °C</b>          |

**Direction:** Suspend 30 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SIM30100, 500 ml: SIM30500</b> |
| Tubed media:   | <b>100 x 12 mm: SIM40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,6 – 6,8</b>                          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                           |      |
|---------------------------|------|
| Peptones                  | 26,0 |
| Ferrous ammonium sulphate | 0,2  |
| Sodium thiosulphate       | 0,2  |
| Agar                      | 3,6  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Reactions        |          |        | Incubation time: 24 h |
|--------------------------|------------------------|------------------|----------|--------|-----------------------|
|                          |                        | H <sub>2</sub> S | Motility | Indole |                       |
| <i>Shigella sonnei</i>   | ATCC 25931             | –                | –        | –      |                       |
| <i>Proteus mirabilis</i> | ATCC 29906             | +                | +        | +      |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | –                | +        | +      |                       |

**References:** Blazevic (1968) Appl. Microbiol. 16: 668.

### SIMMONS CITRATE AGAR

A differential medium for the differentiation of Gram-negative bacteria on the basis of their citrate utilisation.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CIT20500, 5 kg: CIT25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,9 (approx.) at 25 °C</b>          |

**Direction:** Suspend **24 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

### Prepared media:

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CIT30100 500 ml: CIT30500</b>    |
| Tubed media:   | <b>100 x 12 mm: CIT40002 (2 ml – slant)</b> |
| Colour:        | <b>Green</b>                                |
| pH (25 °C)     | <b>6,8 – 7,0</b>                            |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

### FORMULA in g/l

|                    |       |
|--------------------|-------|
| Sodium citrate     | 2,00  |
| Sodium chloride    | 5,00  |
| Magnesium sulphate | 0,20  |
| Bromothymol blue   | 0,08  |
| Buffers            | 1,70  |
| Agar               | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                          | Incubation time: 24 h |
|------------------------------|------------------------|---------------------------------|-----------------------|
| <i>Klebsiella pneumoniae</i> | ATCC 13883             | Positive, colour change to blue |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Negative, without colour change |                       |

**References:** Simmons (1926) J. Infect. Dis. 39: 209.

### SLANETZ-BARTLEY AGAR BASE

A selective medium for the detection of *Enterococcus* spp.

### Dehydrated media

|                        |   |
|------------------------|---|
| Code Number:           | <b>500 g: SLA20500, 5 kg: SLA25000</b>                  |
| Colour:                | <b>Yellowish</b>  |
| Appearance:            | <b>Slightly adherent Homogeneous hygroscopic powder</b> |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>                           |

**Direction:** Suspend **22 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of TTC Solution, Sterile (TTC80030)**. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SLA30100, 500 ml: SLA30500</b> |
| Plated media:  | <b>55 mm: SLA50055, 90 mm: SLA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|              |      |
|--------------|------|
| Peptones     | 25,0 |
| Glucose      | 2,0  |
| Sodium azide | 0,4  |
| Buffers      | 4,0  |
| Agar         | 12,5 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                     | Incubation time: 48 h |
|------------------------------|------------------------|----------------------------|-----------------------|
| <i>Enterococcus faecalis</i> | ATCC 29212             | Good, ferruginous colonies |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                  |                       |

**References:** Slanetz and Bartley (1957) J. Bact. 74: 591.

### SPS AGAR

A selective and differential medium for the detection of thermophilic anaerobes, producing hydrogen sulphite.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SPS20500, 5 kg: SPS25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SPS30100, 500 ml: SPS30500</b> |
| Tubed media:   | <b>150 x 15 mm: SPS40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Peptones                | 25,00 |
| Ferric ammonium citrate | 0,50  |
| Sodium sulphite         | 0,50  |
| Sodium sulfadiazine     | 0,12  |
| Polymyxin B sulphate    | 0,01  |
| Agar                    | 13,90 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                   | Incubation temp: 44 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, colour change to black (under anaerobic conditions) |                       |

**References:** Angelotti et al. (1962) J. Appl. Microbiol. 10: 193.

### STAPHYLOCOCCUS AGAR No.110

A selective and differential medium for the isolation and presumptive identification of pathogenic *Staphylococcus* spp.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: STM20500, 5 kg: STM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **150 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Disperse the precipitate by gentle agitation before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: STM30100, 500 ml: STM30500</b> |
| Plated media:  | <b>55 mm: STM50055, 90 mm: STM50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 13 |
| Mannitol        | 10 |
| Lactose         | 2  |
| Sodium chloride | 75 |
| Gelatin         | 30 |
| Buffers         | 5  |
| Agar            | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 48 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, mannitol decomposition and gelatin liquefaction positive, cream coloured colonies |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited   |                       |

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods

### SUGAR FREE AGAR

A standard medium for the enumeration of contaminants in dairy products.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: SFA20500, 5 kg: SFA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **35 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: SFA30100, 500 ml: SFA30500</b> |
| Plated media:  | <b>55 mm: SFA50055, 90 mm: SFA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,7 – 6,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 15 |
| Sodium chloride | 5  |
| Agar            | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** I. D. F. (1964). International Standard FIL-IDF 30.

### TAYLOR BROTH

See: Culture Media for Amino Acid Decomposition Studies (page 137)

## II. DEHYDRATED CULTURE MEDIA

### TCBS AGAR

A selective medium for the isolation of pathogenic vibrios.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: TCB20500, 5 kg: TCB25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>8,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **91 g** in one litre of distilled water and soak for 10 minutes. Heat with frequent agitation until the medium boils well. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TCB30100, 500 ml: TCB30500</b> |
| Plated media:  | <b>55 mm: TCB50055, 90 mm: TCB50090</b>   |
| Colour:        | <b>Blue</b>                               |
| pH (at 25 °C): | <b>8,5 – 8,7</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Peptones             | 18,00 |
| Bacteriological bile | 8,00  |
| Sucrose              | 20,00 |
| Sodium chloride      | 10,00 |
| Sodium citrate       | 10,00 |
| Sodium thiosulphate  | 10,00 |
| Ferric citrate       | 1,00  |
| Bromothymol blue     | 0,04  |
| Thymol blue          | 0,04  |
| Agar                 | 14,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                     | Incubation time: 24 h |
|--------------------------------|------------------------|----------------------------|-----------------------|
| <i>Vibrio parahaemolyticus</i> | ATCC 17802             | Good, yellow colonies      |                       |
| <i>Escherichia coli</i>        | ATCC 25922             | Inhibited                  |                       |
| <i>Proteus mirabilis</i>       | ATCC 29906             | Inhibited without swarming |                       |

**References:** Kobayashi et al. (1963) Jap. J. Bact. 18. 10-11: 387.

### TERGITOL 7 AGAR BASE

A differential and selective medium for the detection and enumeration of coliforms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TEA20500, 5 kg: TEA25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **27 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of TTC Solution, Sterile (TTC80030)**. Mix well before pouring.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TEA30100, 500 ml: TEA30500</b> |
| Plated media:  | <b>55 mm: TEA50055, 90 mm: TEA50090</b>   |
| Colour:        | <b>Green</b>                              |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                  |       |
|------------------|-------|
| Peptones         | 10,00 |
| Yeast extract    | 6,00  |
| Meat extract     | 5,00  |
| Lactose          | 20,00 |
| Tergitol 7       | 0,10  |
| Bromothymol blue | 0,05  |
| Agar             | 12,85 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                                      | Incubation time: 48 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, yellow colonies                       |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, ferruginous colonies without swarming |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited                                   |                       |

**References:** Chapman (1947) J. Bact. 53: 504.

### TEST AGAR, pH 6.0

A non-selective medium for the detection of antimicrobial inhibitors.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: T6020500, 5 kg: T6025000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,9 – 6,1 at 25 °C</b>              |

**Direction:** Suspend **25 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **1 ml Bacillus subtilis spore suspension**. Mix well and pour plates immediately.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: T6030100, 500 ml: T6030500</b> |
| Plated media:  | <b>55 mm: T6050055, 90 mm: T6050090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,0</b>                                |

**Direction:** Complete the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 6,9  |
| Sodium chloride | 5,1  |
| Agar            | 13,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 1–3 °C. Do not freeze! Additional packaging into a welded plastic bag is highly recommended.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|--------------------------|------------------------|--------|-----------------------|
| <i>Bacillus subtilis</i> | ATCC 6633              | Good   |                       |

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

### TEST AGAR, pH 7.2

A non-selective medium for the detection of antimicrobial inhibitors.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: T7220500, 5 kg: T7225000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 – 7,3 at 25 °C</b>              |

**Direction:** Suspend **26 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **1 ml *Bacillus subtilis* spore suspension**. Mix well and pour plates immediately.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: T7230100, 500 ml: T7230500</b> |
| Plated media:  | <b>55 mm: T7250055, 90 mm: T7250090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7.2</b>                                |

**Direction:** Complete the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 7,0  |
| Sodium chloride | 5,0  |
| Buffer          | 0,8  |
| Agar            | 13,2 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 1–3 °C. Do not freeze! Additional packaging into a welded plastic bag is highly recommended.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|--------------------------|------------------------|--------|-----------------------|
| <i>Bacillus subtilis</i> | ATCC 6633              | Good   |                       |

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

### TEST AGAR, pH 8.0

A non-selective medium for the detection of antimicrobial inhibitors.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: T8020500, 5 kg: T8025000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,9 – 8,1 at 25 °C</b>              |

**Direction:** Suspend **27,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **1 ml *Bacillus subtilis* spore suspension**. Mix well and pour plates immediately.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: T8030100, 500 ml: T8030500</b> |
| Plated media:  | <b>55 mm: T8050055, 90 mm: T8050090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>8.0</b>                                |

**Direction:** Complete the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 6,9  |
| Sodium chloride | 5,1  |
| Buffer          | 2,4  |
| Agar            | 13,1 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 1–3 °C. Do not freeze! Additional packaging into a welded plastic bag is highly recommended.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|--------------------------|------------------------|--------|-----------------------|
| <i>Bacillus subtilis</i> | ATCC 6633              | Good   |                       |

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

### TETRATHIONATE BROTH BASE, MULLER-KAUFFMANN (MKTTn)

A selective medium for the enrichment of *Salmonella* spp. according to ISO standard.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: TMK20500, 5 kg: TMK25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>8,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in 475 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Novobiocin (20 mg) Supplement (DSN80004-20)** reconstituted with 4 ml of sterile distilled water and **10 ml of Brilliant Green Solution, Sterile (BGS80100-DC)**. Mix well and add aseptically the contents of **one vial of Tetrathionate Iodine-Iodide Selective Supplement (TTS80010)** reconstituted with 10 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Warning!

The medium is heat sensitive.

Do not heat after addition of the supplement.

It is recommended to use the complete medium on the day of preparation.

#### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: TMK30100, 500 ml: TMK30500</b> |
| Colour of bottled media: | <b>Yellowish</b>                          |
| pH (at 25 °C):           | <b>7,9 – 8,1</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                     |      |
|---------------------|------|
| Peptones            | 13,4 |
| Bile salts          | 4,8  |
| Calcium carbonate   | 38,7 |
| Sodium thiosulphate | 30,5 |
| Sodium chloride     | 2,6  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C, but no longer than 24 hours.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** ISO 6579

### TETRATHIONATE BROTH BASE, MULLER-KAUFFMANN

A selective medium for the enrichment of *Salmonella* spp. besides inhibition of *Proteus* spp.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: MTB20500, 5 kg: MTB25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,6 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41 g** in 480 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically **10 ml of Brilliant Green Solution, Sterile (BGS80100-DC)**. Mix well and add aseptically the contents of **one vial of Tetrathionate Iodine-Iodide Selective Supplement (TTS80010)** reconstituted with 10 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Warning!

The medium is heat sensitive. Do not heat after addition of the supplement.  
It is recommended to use the complete medium on the day of preparation.

#### Prepared media

|                          |   |
|--------------------------|---|
| Bottled media:           | <b>100 ml: MTB30100, 500 ml: MTB30500</b> |
| Colour of bottled media: | <b>Yellowish</b>                          |
| pH (at 25 °C):           | <b>7,5 – 7,7</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes.

### FORMULA in g/l

|                      |      |
|----------------------|------|
| Peptones             | 7,0  |
| Bacteriological bile | 4,8  |
| Sodium thiosulphate  | 40,7 |
| Calcium carbonate    | 25,0 |
| Sodium chloride      | 4,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C, but no longer than 24 hours.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Inhibited |                       |

**References:** Muller (1923) C. R. Soc. Biol. 89: 434.  
Kauffmann (1930) Zbl. Bakt. I. Orig. 119: 148.

### TETRATHIONATE BROTH BASE, PH EUR

A selective enrichment medium for the isolation of *Salmonella* spp. according to PH EUR (Broth Medium I – Tetrathionate Bile Brilliant Green Broth).

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: TTE20500, 5 kg: TTE25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **31,5 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Tetrathionate Iodine-Iodide Selective Supplement (TTS80010)** reconstituted with 10 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Warning!

The medium is heat sensitive.  
Do not heat after addition of the supplement.  
It is recommended to use the complete medium on the day of preparation.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TTE30100, 500 ml: TTE30500</b> |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>6,9 – 7,1</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes.

### FORMULA in g/l

|                      |       |
|----------------------|-------|
| Peptones             | 8,60  |
| Bacteriological bile | 8,00  |
| Calcium carbonate    | 20,00 |
| Sodium thiosulphate  | 20,00 |
| Sodium chloride      | 6,40  |
| Brilliant green      | 0,07  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C, but no longer than 24 hours.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** European Pharmacopoeia

## II. DEHYDRATED CULTURE MEDIA

### TETRATHIONATE BROTH BASE, USP

A selective enrichment medium for the isolation of *Salmonella* spp. – including *Salmonella typhi* – according to USP.

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: TTB20500, 5 kg: TTB25000</b> |
| Colour:      | <b>Yellowish</b>                       |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>8,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **23 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Tetrathionate Iodine-Iodide Selective Supplement (TTS80010)** reconstituted with 10 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

#### Warning!

The medium is heat sensitive.

Do not heat after addition of the supplement.

It is recommended to use the complete medium on the day of preparation.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TTB30100, 500 ml: TTB30500</b> |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>8,3 – 8,5</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes.

#### FORMULA in g/l

|                     |    |
|---------------------|----|
| Peptones            | 5  |
| Bile salts          | 1  |
| Sodium thiosulphate | 30 |
| Calcium carbonate   | 10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C, but no longer than 24 hours.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|-----------------------|
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good      |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited |                       |

**References:** United States Pharmacopoeia

### THIOGLYCOLLATE MEDIUM G

A non-selective medium for sterility testing. The medium is primarily intended for the culture of anaerobe bacteria, however, it will also detect aerobic bacteria. This medium is more transparent than the classical thioglycollate media.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: THG20500, 5 kg: THG25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: THG30100, 500 ml: THG30500</b>         |
| Tubed media:   | <b>150 x 15 mm: THG40010 (10 ml)</b>              |
| Colour:        | <b>Yellowish, with red colour ring on the top</b> |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                                  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a red colour of the resazurin near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

#### FORMULA in g/l

|                       |        |
|-----------------------|--------|
| Casein peptone        | 15,250 |
| Yeast extract         | 5,000  |
| L-Cysteine            | 0,500  |
| Glucose monohydrate   | 5,500  |
| Sodium chloride       | 2,500  |
| Sodium thioglycollate | 0,500  |
| Resazurin             | 0,001  |
| Gelling agent         | 0,750  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Pseudomonas aeruginosa</i>  | ATCC 27853             | Good                              |                       |
| <i>Staphylococcus aureus</i>   | ATCC 29213             | Good                              |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

### THIOGLYCOLLATE MEDIUM WITH HEMIN + VITAMIN K3

A non-selective medium for sterility testing. The medium is primarily intended for the culture of anaerobe bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: THK20500, 5 kg: THK25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: THK30100, 500 ml: THK30500</b>         |
| Tubed media:   | <b>150 x 15 mm: THK40010 (10 ml)</b>              |
| Colour:        | <b>Yellowish, with red colour ring on the top</b> |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                                  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a red colour of the resazurin near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                       |        |
|-----------------------|--------|
| Casein peptone        | 15,250 |
| Yeast extract         | 5,000  |
| L-Cysteine            | 0,500  |
| Glucose monohydrate   | 5,500  |
| Sodium chloride       | 2,500  |
| Sodium thioglycollate | 0,500  |
| Hemin                 | 0,005  |
| Vitamin K3            | 0,001  |
| Resazurin             | 0,001  |
| Agar                  | 0,750  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Lenette et al. (1985) Manual of Clinical Microbiology, 4<sup>th</sup> ed.

### THIOGLYCOLLATE MEDIUM, BREWER

A non-selective enrichment medium for the cultivation of both aerobic and anaerobic micro-organisms, especially in the sterility testing of the biological products.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TBR20500, 5 kg: TBR25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TBR30100, 500 ml: TBR30500</b>           |
| Tubed media:   | <b>150 x 15 mm: TBR40010 (10 ml)</b>                |
| Colour:        | <b>Yellowish, with green colour ring on the top</b> |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                                    |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a green colour of the methylene blue near the surface. If oxidation has proceeded further, the medium may be reheated once in steam or boiling water, cooled and used.

### FORMULA in g/l

|                       |       |
|-----------------------|-------|
| Peptones              | 8,000 |
| Glucose               | 5,000 |
| Sodium chloride       | 5,000 |
| Sodium thioglycollate | 1,100 |
| Methylene blue        | 0,002 |
| Agar                  | 0,900 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Staphylococcus aureus</i>   | ATCC 29213             | Good                              |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Brewer (1940) J. Am. Med. Assoc. 115: 598.

### THIOGLYCOLLATE MEDIUM, PH EUR

A non-selective medium for sterility testing according to PH EUR (Fluid Thioglycollate Medium for Sterility Testing). The medium is primarily intended for the culture of anaerobic bacteria, however, it will also detect aerobic bacteria.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: THM20500, 5 kg: THM25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: THM30100, 500 ml: THM30500</b>         |
| Tubed media:   | <b>150 x 15 mm: THM40010 (10 ml)</b>              |
| Colour:        | <b>Yellowish, with red colour ring on the top</b> |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                                  |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a red colour of the resazurin near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

### FORMULA in g/l

|                       |        |
|-----------------------|--------|
| Casein peptone        | 15,250 |
| Yeast extract         | 5,000  |
| L-Cysteine            | 0,500  |
| Glucose monohydrate   | 5,500  |
| Sodium chloride       | 2,500  |
| Sodium thioglycollate | 0,500  |
| Resazurin             | 0,001  |
| Agar                  | 0,750  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                            | Incubation time: 24 h |
|--------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Pseudomonas aeruginosa</i>  | ATCC 27853             | Good                              |                       |
| <i>Staphylococcus aureus</i>   | ATCC 29213             | Good                              |                       |
| <i>Clostridium perfringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** European Pharmacopoeia



## II. DEHYDRATED CULTURE MEDIA

### TODD-HEWITT BROTH

A general-purpose non-selective medium for the cultivation primarily of beta-haemolytic streptococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: THB20500, 5 kg: THB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,8 (approx.) at 25 °C</b>          |

**Direction for non selective broth:** Suspend **37 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

**Direction for selective broth:** Suspend **18,5 g** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Staph/Strep Selective Supplement (SHS80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile final containers.

#### Prepared media

|                             |   |
|-----------------------------|---|
| Bottled media:              | <b>100 ml: THB30100, 500 ml: THB30500</b> |
| Tubed media, non selective: | <b>150 x 15 mm: THB40010 (10 ml)</b>      |
| Tubed media, selective:     | <b>150 x 15 mm: THB40010-02 (10 ml)</b>   |
| Colour:                     | <b>Yellowish</b>                          |
| pH (at 25 °C):              | <b>7,7 – 7,9</b>                          |

**Direction:** If necessary, supplement may be added to the melted bottled media according to the direction of the dehydrated media. Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|   |    |
|---|----|
| Nutrient substrate (heart infusion, peptones) | 30 |
| Glucose                                       | 2  |
| Sodium chloride                               | 2  |
| Buffers                                       | 3  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                                 | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good                                   |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | Inhibited (in case of selective media) |                       |

**References:** Todd and Hewitt (1932) J. Path. Bact. 35: 973.

### TOMATO JUICE AGAR

A selective medium for the cultivation and enumeration of *Lactobacillus* spp.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TJA20500, 5 kg: TJA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **53 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If adjustment of pH is necessary to pH 5,1, cool to 55 °C and add aseptically **Lactic Acid Solution (LAS80100)** to the medium in the necessary quantity (approx. 10 ml). Mix well before pouring.

#### Warning!

Once acidified with lactic acid, the medium should not be reheated.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TJA30100, 500 ml: TJA30500</b> |
| Plated media:  | <b>55 mm: TJA50055, 90 mm: TJA50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (at 25 °C): | <b>6,0 – 6,2</b>                          |

**Direction:** If adjustment of pH is necessary, complete according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                |    |
|----------------|----|
| Tomato extract | 20 |
| Peptones       | 10 |
| Milk peptone   | 10 |
| Agar           | 13 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                     | Incubation temp: 30 °C | Growth                                | Incubation time: 72 h |
|----------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Lactobacillus acidophilus</i> | ATCC 4356              | Good (under micro-aerobic conditions) |                       |

**References:** Kulp and White (1932) Science 76: 17.

### TRANSPORT MEDIUM, AMIES WITH CHARCOAL

An improved semi-solid, non-nutritional medium for the transportation of fastidious pathogens with prolonged survival of micro-organisms from collection to culturing. The added charcoal neutralises the toxic metabolic products of gonococci.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TAC20500, 5 kg: TAC25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes. While cooling turn the containers up and down a few times to distribute the charcoal uniformly.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TAC30100, 500 ml: TAC30500</b> |
| Colour:        | <b>Black</b>                              |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into final containers. Cool to 50 °C. While cooling turn the containers up and down a few times to distribute the charcoal uniformly.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                      |      |
|----------------------|------|
| Sodium chloride      | 3,0  |
| Sodium thioglycolate | 1,0  |
| Potassium chloride   | 0,2  |
| Calcium chloride     | 0,1  |
| Magnesium chloride   | 0,1  |
| Charcoal             | 10,0 |
| Buffers              | 1,6  |
| Agar                 | 4,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 30 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good growth of the test organism on the plated media following subculture after 48 h in transport medium. |                       |

**References:** Amies (1967) Can. J. Pub. Hlth. 58: 296.

### TRANSPORT MEDIUM, AMIES WITHOUT CHARCOAL

An improved semi-solid, non-nutritional medium for the transportation of fastidious pathogens with prolonged survival of micro-organisms from collection to culturing.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TAW20500, 5 kg: TAW25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **10 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TAW30100, 500 ml: TAW30500</b> |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into final containers.

### FORMULA in g/l

|                      |     |
|----------------------|-----|
| Sodium chloride      | 3,0 |
| Sodium thioglycolate | 1,0 |
| Potassium chloride   | 0,2 |
| Calcium chloride     | 0,1 |
| Magnesium chloride   | 0,1 |
| Buffers              | 1,6 |
| Agar                 | 4,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 30 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good growth of the test organism on the plated media following subculture after 48 h in transport medium. |                       |

**References:** Amies (1967) Can. J. Pub. Hlth. 58: 296.

### TRANSPORT MEDIUM, CARY-BLAIR

A semi-solid, non-nutritional medium for the transportation of Gram-negative and anaerobe bacteria with prolonged survival of micro-organisms from collection to culturing.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TCW20500, 5 kg: TCW25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>8,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **13 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TCW30100, 500 ml: TCW30500</b> |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>8,2 – 8,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into final containers.

### FORMULA in g/l

|                      |      |
|----------------------|------|
| Sodium chloride      | 5,00 |
| Sodium thioglycolate | 1,50 |
| Calcium chloride     | 0,09 |
| Buffers              | 1,00 |
| Agar                 | 5,40 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 30 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good growth of the test organism on the plated media following subculture after 48 h in transport medium. |                       |

**References:** Cary and Blair (1964) J. Bact. 88: 96.

### TRANSPORT MEDIUM, STUART WITH CHARCOAL

A semi-solid, non-nutritional medium for the transportation of fastidious pathogens with prolonged survival of micro-organisms from collection to culturing. The added charcoal neutralises the toxic metabolic products of gonococci.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSC20500, 5 kg: TSC25000</b> |
| Colour:                | <b>Black</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **26 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes. While cooling turn the containers up and down a few times to distribute the charcoal uniformly.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TSC30100, 500 ml: TSC30500</b> |
| Colour:        | <b>Black</b>                              |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into final containers. Cool to 50 °C. While cooling turn the containers up and down a few times to distribute the charcoal uniformly.

### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Sodium chloride         | 0,100  |
| Sodium thioglycolate    | 0,500  |
| L-Cysteine              | 0,400  |
| Charcoal                | 10,000 |
| Methylene blue          | 0,001  |
| Sodium glycerophosphate | 10,000 |
| Agar                    | 5,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 30 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good growth of the test organism on the plated media following subculture after 48 h in transport medium. |                       |

**References:** Stuart et al. (1959) Pub. Hlth. Rep. Wash. 74: 431.

## TRANSPORT MEDIUM, STUART WITHOUT CHARCOAL

A semi-solid, non-nutritional medium for the transportation of fastidious pathogens with prolonged survival of micro-organisms from collection to culturing.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSW20500, 5 kg: TSW25000</b> |
| Colour:                | <b>White</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **16 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TSW30100, 500 ml: TSW30500</b> |
| Colour:        | <b>Water clear</b>                        |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into final containers.

### FORMULA in g/l

|                         |        |
|-------------------------|--------|
| Sodium chloride         | 0,100  |
| Sodium thioglycolate    | 0,500  |
| L-Cysteine              | 0,400  |
| Methylene blue          | 0,001  |
| Sodium glycerophosphate | 10,000 |
| Agar                    | 5,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 30 °C | Growth  | Incubation time: 48 h |
|-------------------------------|------------------------|---|-----------------------|
| <i>Streptococcus pyogenes</i> | ATCC 19615             | Good growth of the test organism on the plated media following subculture after 48 h in transport medium. |                       |

**References:** Stuart et al. (1959) Pub. Hlth. Rep. Wash. 74: 431.

## TRIBUTYRIN AGAR BASE

A non-selective medium for the detection and enumeration of lipolytic micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TRA20500, 5 kg: TRA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **20 g** in one litre of distilled water. Add **10 ml of Tributyrin Supplement (TRS80250)** and mix until homogeneous. Heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C with frequent agitation and pour plates immediately to solidify quickly.

### Warning!

The ready medium must be homogeneous turbid gel!

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TRA30100, 500 ml: TRA30500</b> |
| Plated media:  | <b>55 mm: TRA50055, 90 mm: TRA50090</b>   |
| Colour:        | <b>Yellowish, homogeneous turbid</b>      |
| pH (25 °C):    | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes according to the direction of dehydrated media. Media in Petri-dishes are ready to use.

### Warning!

The ready medium must be homogeneous turbid gel!

### FORMULA in g/l

|          |    |
|----------|----|
| Peptones | 8  |
| Agar     | 12 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                | Incubation time: 24 h |
|------------------------------|------------------------|-----------------------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, with clear halo |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Good, without halo    |                       |

**References:** Anderson (1939) Ber. 3. Int. Microbiol. Congress. 3: 726.

## II. DEHYDRATED CULTURE MEDIA

### TRICHOMONAS (CPLM) MEDIUM BASE, MODIFIED

A selective medium for the cultivation of *Trichomonas vaginalis*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: CPL20500, 5 kg: CPL25000</b> |
| Colour:                | <b>Brownish</b>                        |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **17,5 g** in 425 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Trichomonas Selective Supplement (TSS80004)** reconstituted with 4 ml of sterile distilled water and **70 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) and pH adjusted (6,0) horse serum**. Mix well and dispense aseptically into sterile test tubes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: CPL30100, 500 ml: CPL30500</b>                             |
| Tubed media:   | <b>150 x 15 mm: CPL40010 (10 ml)<br/>150 x 15 mm: CPL40007 (7 ml)</b> |
| Colour:        | <b>Yellowish, with green colour ring on the top</b>                   |
| pH (at 25 °C): | <b>5,9 – 6,1</b>  |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

#### Warning!

The media may be used until approximately 30 % of the medium (top layer) has been oxidized, as indicated by a green colour of the methylene blue near the surface. If oxidation has proceeded further, the media may be reheated once in steam or boiling water, cooled and used.

#### FORMULA in g/l

|  |        |
|--|--------|
| Nutrient substrate (peptones, liver extract) | 26,000 |
| L-Cysteine                                   | 2,000  |
| Maltose                                      | 1,000  |
| Ringer solution                              | 4,500  |
| Methylene blue                               | 0,005  |
| Buffers                                      | 0,500  |
| Agar   | 1,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Trichomonas vaginalis</i> | ATCC 30001             | Good   |                       |

**References:** Johnson and Trussel (1943) Proc. Soc. Exp. Biol. 54: 245.  
Szénási et al. (1999) Hungarian Venerological Archive 3: 215.

### TRICHOMONAS MEDIUM BASE

A selective medium for the cultivation of *Trichomonas vaginalis*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TRM20500, 5 kg: TRM25000</b> |
| Colour:                | <b>Brownish</b>                        |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **18,5 g** in 455 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Trichomonas Selective Supplement (TSS80004)** reconstituted with 4 ml of sterile distilled water and **40 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) and pH adjusted (6,4) horse serum**. Mix well and dispense aseptically into sterile test tubes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TRM30100, 500 ml: TRM30500</b> |
| Tubed media:   | <b>150 x 15 mm: TRM40010 (10 ml)</b>      |
| Colour:        | <b>Brownish</b>                           |
| pH (at 25 °C): | <b>6,3 – 6,5</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Liver extract   | 24,5 |
| Glucose         | 5,0  |
| Sodium chloride | 6,5  |
| Agar            | 1,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Trichomonas vaginalis</i> | ATCC 30001             | Good   |                       |

**References:** Freinberg and Whittington (1957) J. Clin. Path. 10: 327.

### TRIPLE SUGAR IRON (TSI) AGAR, PH EUR

A differential medium for the differentiation of bacteria on the basis of carbohydrate fermentation and hydrogen sulphite production according to PH EUR (Agar Medium M).

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSI20500, 5 kg: TSI25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend 66 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position to form slant with deep butt.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TSI30100 500 ml: TSI30500</b>                  |
| Tubed media:   | <b>100 x 12 mm: TSI40003 (3 ml, slant with deep butt)</b> |
| Colour:        | <b>Onion red</b>  |
| pH (25 °C):    | <b>7,3 – 7,5</b>  |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position to form slant with deep butt. Media in tubes are ready to use.

## II. DEHYDRATED CULTURE MEDIA

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 20,000 |
| Beef extract        | 3,000  |
| Yeast extract       | 3,000  |
| Lactose monohydrate | 10,000 |
| Sucrose             | 10,000 |
| Glucose             | 1,000  |
| Sodium chloride     | 5,000  |
| Sodium thiosulphate | 0,300  |
| Ferric citrate      | 0,300  |
| Phenol red          | 0,025  |
| Agar                | 13,400 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions |        |     |                  | Incubation time: 24 h |
|-------------------------------|------------------------|-----------|--------|-----|------------------|-----------------------|
|                               |                        | Slant     | Butt   | Gas | H <sub>2</sub> S |                       |
| <i>Escherichia coli</i>       | ATCC 25922             | yellow    | yellow | +   | –                |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | red       | yellow | +   | +                |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | red       | red    | –   | –                |                       |

**References:** European Pharmacopoeia

### TRYPTONE BILE AGAR

A differential medium for the enumeration of *Escherichia coli* with DPM method.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TBA20500, 5 kg: TBA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TBA30100, 500 ml: TBA30500</b> |
| Plated media:  | <b>55 mm: TBA50055, 90 mm: TBA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|            |      |
|------------|------|
| Tryptone   | 20,5 |
| Bile salts | 1,5  |
| Agar       | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good      |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited |                       |

**References:** Anderson and Baird-Parker (1975) J. Appl. Bact. 39: 111.

### TRYPTONE SOYA AGAR

A highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSA20500, 5 kg: TSA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **45 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                                       |   |
|---------------------------------------|---|
| Bottled media:                        | <b>100 ml: TSA30100, 500 ml: TSA30500</b> |
| Plated media in normal Petri-dishes:  | <b>55 mm: TSA50055, 90 mm: TSA50090</b>   |
| Plated media in contact Petri-dishes: | <b>65 mm: TSA50065</b>                    |
| Colour:                               | <b>Yellowish</b>                          |
| pH (25 °C):                           | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Casein peptone  | 17,0 |
| Soya peptone    | 3,0  |
| Glucose         | 2,5  |
| Sodium chloride | 5,0  |
| Buffers         | 2,5  |
| Agar            | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Good   |                       |

### TRYPTONE SOYA AGAR, PH EUR - USP

A highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms according to PH EUR (Agar Medium B – Casein Soya-Bean Digest Agar – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSE20500, 5 kg: TSE25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                                       |   |
|---------------------------------------|---|
| Bottled media:                        | <b>100 ml: TSE30100, 500 ml: TSE30500</b> |
| Plated media in normal Petri-dishes:  | <b>55 mm: TSE50055, 90 mm: TSE50090</b>   |
| Plated media in contact Petri-dishes: | <b>65 mm: TSE50065</b>                    |
| Colour:                               | <b>Yellowish</b>                          |
| pH (25 °C):                           | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |    |
|-----------------|----|
| Casein peptone  | 15 |
| Soya peptone    | 5  |
| Sodium chloride | 5  |
| Agar            | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Good   |                       |
| <i>Bacillus subtilis</i>      | ATCC 6633              | Good   |                       |
| <i>Candida albicans</i>       | ATCC 10231             | Good   |                       |
| <i>Aspergillus niger</i>      | ATCC 16404             | Good   |                       |

**References:** European Pharmacopoeia

### TRYPTONE SOYA BILE (mTSB) BROTH

A selective medium for the isolation of enterohemorrhagic *Escherichia coli* (EHEC).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TBB20500, 5 kg: TBB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **33 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TBB30100, 500 ml: TBB30500</b> |
| Tubed media:   | <b>150 x 15 mm: TBB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Tryptone        | 17,0 |
| Soya peptone    | 3,0  |
| Bile salts      | 1,5  |
| Glucose         | 2,5  |
| Sodium chloride | 5,0  |
| Buffers         | 4,0  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Escherichia coli</i> 0157 | ATCC 35150             | Good      |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited |                       |

**References:** Doyle and Schoeni (1987) Appl. Envir. Microbiol. 53: 2394.

### TRYPTONE SOYA BILE (mTSB+n) BROTH WITH NOVOBIOCIN

A selective medium for the isolation of enterohemorrhagic *Escherichia coli* (EHEC).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TBN20500, 5 kg: TBN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **33 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TBN30100, 500 ml: TBN30500</b> |
| Tubed media:   | <b>150 x 15 mm: TBN40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |       |
|-----------------|-------|
| Tryptone        | 17,00 |
| Soya peptone    | 3,00  |
| Bile salts      | 1,50  |
| Glucose         | 2,50  |
| Sodium chloride | 5,00  |
| Novobiocin      | 0,02  |
| Buffers         | 4,00  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|------------------------------|------------------------|-----------|-----------------------|
| <i>Escherichia coli</i> 0157 | ATCC 35150             | Good      |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Inhibited |                       |

**References:** ISO 16654

### TRYPTONE SOYA BROTH, PH EUR - USP

A highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms. The medium is primarily intended for the culture of fungi and aerobic bacteria according to PH EUR (Broth Medium A – Casein Soya-Bean Digest Broth – Harmonised).

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSB20500, 5 kg: TSB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **30 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TSB30100, 500 ml: TSB30500</b> |
| Tubed media:   | <b>150 x 15 mm: TSB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                              |      |
|------------------------------|------|
| Casein peptone               | 17,0 |
| Soya peptone                 | 3,0  |
| Glucose monohydrate          | 2,5  |
| Sodium chloride              | 5,0  |
| Potassium phosphate, dibasic | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Good   |                       |
| <i>Staphylococcus aureus</i>  | ATCC 29213             | Good   |                       |
| <i>Bacillus subtilis</i>      | ATCC 6633              | Good   |                       |

**References:** European Pharmacopoeia

### TRYPTONE SOYA YEAST EXTRACT AGAR

A highly nutritious general purpose medium for the cultivation of a wide variety of micro-organisms especially *Listeria monocytogenes*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TYA20500, 5 kg: TYA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **51 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TYA30100, 500 ml: TYA30500</b> |
| Plated media:  | <b>55 mm: TYA50055, 90 mm: TYA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Tryptone        | 17,0 |
| Soya peptone    | 3,0  |
| Yeast extract   | 6,0  |
| Glucose         | 2,5  |
| Sodium chloride | 5,0  |
| Buffers         | 2,5  |
| Agar            | 15,0 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good   |                       |

**References:** APHA (1992) Compendium of Methods for the Microbiological Examination of Foods, 3<sup>rd</sup> ed.  
ISO 11290

### TRYPTONE SOYA YEAST EXTRACT BROTH

A highly nutritious non-selective medium for the cultivation of a wide variety of micro-organisms especially *Listeria monocytogenes*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YTB20500, 5 kg: YTB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **36 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YTB30100, 500 ml: YTB30500</b> |
| Tubed media:   | <b>150 x 15 mm: YTB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Tryptone        | 17,0 |
| Soya peptone    | 3,0  |
| Yeast extract   | 6,0  |
| Glucose         | 2,5  |
| Sodium chloride | 5,0  |
| Buffers         | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|-------------------------------|------------------------|--------|-----------------------|
| <i>Listeria monocytogenes</i> | ATCC 19115             | Good   |                       |

**References:** APHA (1992) Compendium of Methods for the Microbiological Examination of Foods, 3<sup>rd</sup> ed.  
ISO 11290

## II. DEHYDRATED CULTURE MEDIA

### TRYPTONE WATER

A differential medium for the differentiation of bacteria on the basis of their ability to produce indole from tryptophan.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TRW20500, 5 kg: TRW25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **15 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TRW30100, 500 ml: TRW30500</b> |
| Tubed media:   | <b>100 x 12 mm: TRW40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Tryptone        | 10 |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth          | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Indole positive |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Indole negative |                       |

**References:** Farmer (1985) J. Clin. Microbiol. 21: 46.

### TRYPTOPHAN BROTH

A differential medium for the differentiation of bacteria on the basis of their ability to produce indole from tryptophan.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TRB20500, 5 kg: TRB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **16 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TRB30100, 500 ml: TRB30500</b> |
| Tubed media:   | <b>100 x 12 mm: TRB40003 (3 ml)</b>       |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,4 – 7,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |    |
|-----------------|----|
| Peptones        | 10 |
| L-Tryptophan    | 1  |
| Sodium chloride | 5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth          | Incubation time: 24 h |
|-------------------------------|------------------------|-----------------|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Indole positive |                       |
| <i>Enterobacter aerogenes</i> | ATCC 13048             | Indole negative |                       |

**References:** ISO 9308-1

### TRYPTOSE PHOSPHATE BROTH

A highly nutritious non-selective medium for the cultivation of fastidious bacteria.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TPB20500, 5 kg: TPB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TPB30100, 500 ml: TPB30500</b> |
| Tubed media:   | <b>150 x 15 mm: TPB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,2 – 7,4</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |      |
|-----------------|------|
| Tryptose        | 20,5 |
| Glucose         | 2,0  |
| Sodium chloride | 5,0  |
| Buffers         | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                    | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Streptococcus pneumoniae</i> | ATCC 49619             | Good   |                       |

**References:** Ginsberg et al. (1955) Proc. Soc. Exper. Biol. Med. 89: 66.



## II. DEHYDRATED CULTURE MEDIA

### TSN AGAR

A selective and differential medium for the selective isolation of *Clostridium perfringens*.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: TSN20500, 5 kg: TSN25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,0 (approx.) at 25 °C</b>          |

**Direction:** Suspend **40 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 115 °C for 10 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: TSN30100, 500 ml: TSN30500</b> |
| Tubed media:   | <b>150 x 15 mm: TSN40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>6,9 – 7,1</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA in g/l

|                 |       |
|-----------------|-------|
| Peptones        | 25,00 |
| Sodium sulphite | 1,00  |
| Ferric citrate  | 0,50  |
| Neomycin        | 0,05  |
| Polymyxin B     | 0,02  |
| Agar            | 13,50 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                   | Incubation temp: 44 °C | Growth  | Incubation time: 48 h |
|--------------------------------|------------------------|---|-----------------------|
| <i>Clostridium perfringens</i> | ATCC 13124             | Good, colour change to black (under anaerobic conditions) |                       |

**References:** Marshall et al. (1965) Appl. Microbiol. 13: 559.

### UNIVERSAL BEER AGAR

A non-selective medium for the isolation of beer spoilage micro-organisms.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: UBA20500, 5 kg: UBA25000</b> |
| Colour:                | <b>Pinkish</b>                         |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,3 (approx.) at 25 °C</b>          |

**Direction:** Suspend **57 g** in 750 ml of distilled water and heat with frequent agitation until the medium boils well. Without delay, add 250 ml of beer to be investigated (without degassing). Mix gently and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: UBA30100, 500 ml: UBA30500</b> |
| Colour:        | <b>Reddish</b>                            |
| pH (at 25 °C): | <b>6,2 – 6,4</b>                          |

**Direction:** Complete the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes.

#### FORMULA in g/l

|   |       |
|---|-------|
| Peptones                                | 25,40 |
| Tomato extract                          | 7,00  |
| Glucose                                 | 10,00 |
| Mg(II), Na(I), Fe(III) and Mn(II) salts | 0,15  |
| Buffers                                 | 1,50  |
| Agar                                    | 13,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                   | Incubation temp: 30 °C | Growth | Incubation time: 72 h |
|--------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus fermentum</i> | ATCC 9338              | Good   |                       |

**References:** Kozulis and Page (1968) Proc. Am. Brew. Chem: 52.

### UREA AGAR

A differential medium for the differentiation of micro-organisms, especially Enterobacteriaceae, on the basis of their urease activity.

#### Dehydrated media

|                          |  |
|--------------------------|--|
| Code Number:             | <b>500 g: URD20500-M</b>                         |
|                          | <b>packaging: 380 g agar base + 120 g urea</b>   |
|                          | <b>5 kg: URD25000</b>                            |
|                          | <b>packaging: 3,8 kg agar base + 1,2 kg urea</b> |
| Appearance of agar base: | <b>Pinkish homogeneous hygroscopic powder</b>    |
| Appearance of urea:      | <b>White pellet</b>                              |
| pH before autoclaving:   | <b>6,4 – 6,6 (approx.) at 25 °C</b>              |
| pH after autoclaving:    | <b>6,6 – 7,0 (approx.) at 25 °C</b>              |

**Direction:** Suspend **32 g agar base** and **10 g urea** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly! Allow to cool in slanted position.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: URD30100, 500 ml: URD30500</b>   |
| Tubed media:   | <b>100 x 15 mm: URD40005 (5 ml – slant)</b> |
| Colour:        | <b>Orange</b>                               |
| pH (at 25 °C): | <b>6,6 – 7,0</b>                            |

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position. Media in tubes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 1,000  |
| Glucose         | 1,000  |
| Sodium chloride | 5,000  |
| Urea            | 20,000 |
| Phenol red      | 0,012  |
| Buffers         | 2,000  |
| Agar            | 13,000 |

## II. DEHYDRATED CULTURE MEDIA

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2–8 °C.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|--------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Proteus mirabilis</i> | ATCC 29906             | Positive: colour change to Purple-red |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Negative: without colour change       |                       |

**References:** Christensen (1946) J. Bact. 52: 461.

### UREA BROTH

A differential medium for the differentiation of micro-organisms, especially Enterobacteriaceae, on the basis of their urease activity.

#### Dehydrated media

Code Number: **500 g: URE20500-M**  
**packaging: 325 g broth base + 175 g urea**  
**5 kg: URE25000**  
**packaging: 3,25 kg broth base + 1,75 kg urea**

|                           |   |
|---------------------------|---|
| Appearance of broth base: | <b>Pinkish homogeneous hygroscopic powder</b> |
| Appearance of urea:       | <b>White pellet</b>                           |
| pH before autoclaving:    | <b>6,4 – 6,6 (approx.) at 25 °C</b>           |
| pH after autoclaving:     | <b>6,6 – 7,0 (approx.) at 25 °C</b>           |

**Direction:** Suspend **19 g broth base** and **10 g urea** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
 No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: URE30100, 500 ml: URE30500</b> |
| Tubed media:   | <b>100 x 15 mm: URE40005 (5 ml)</b>       |
| Colour:        | <b>Orange</b>                             |
| pH (at 25 °C): | <b>6,6 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 1,000  |
| Glucose         | 1,000  |
| Sodium chloride | 5,000  |
| Urea            | 20,000 |
| Phenol red      | 0,012  |
| Buffers         | 2,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains             | Incubation temp: 37 °C | Growth                                | Incubation time: 24 h |
|--------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Proteus mirabilis</i> | ATCC 29906             | Positive: colour change to Purple-red |                       |
| <i>Escherichia coli</i>  | ATCC 25922             | Negative: without colour change       |                       |

**References:** Christensen (1946) J. Bact. 52: 461.

### UREA INDOLE BROTH

A differential medium for the differentiation of micro-organisms, especially Enterobacteriaceae, on the basis of their urease activity and indole production.

#### Dehydrated media

Code Number: **500 g: URI20500-M**  
**packaging: 325 g broth base + 175 g urea**  
**5 kg: URI25000**  
**packaging: 3,25 kg broth base + 1,75 kg urea**

|                          |   |
|--------------------------|---|
| Appearance of both base: | <b>Pinkish homogeneous hygroscopic powder</b> |
| Appearance of urea:      | <b>White pellet</b>                           |
| pH before autoclaving:   | <b>6,4 – 6,6 (approx.) at 25 °C</b>           |
| pH after autoclaving:    | <b>6,6 – 7,0 (approx.) at 25 °C</b>           |

**Direction:** Suspend **19 g broth base** and **10 g urea** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.  
 No further sterilisation is necessary or desirable.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: URI30100, 500 ml: URI30500</b> |
| Tubed media:   | <b>100 x 12 mm: URI40002 (2 ml)</b>       |
| Colour:        | <b>Orange</b>                             |
| pH (at 25 °C): | <b>6,6 – 7,0</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. Media in tubes are ready to use.

#### FORMULA OF ONE LITRE OF THE COMPLETE MEDIUM in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 10,000 |
| Sodium chloride | 5,000  |
| Urea            | 10,000 |
| Phenol red      | 0,012  |
| Buffers         | 3,000  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Reactions |        | Incubation time: 24 h |
|------------------------------|------------------------|-----------|--------|-----------------------|
|                              |                        | Urease    | Indole |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Quick +   | –      |                       |
| <i>Klebsiella pneumoniae</i> | ATCC 16404             | Slow +    | –      |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | –         | +      |                       |

**References:** Roland et al. (1947) Ann. Inst. Pasteur 73: 914.

### VIOLET RED BILE GLUCOSE AGAR, PH EUR

A glucose containing selective and differential medium for the detection and enumeration of Enterobacteriaceae according to PH EUR (Agar Medium F – Crystal Violet Neutral Red Bile Agar with Glucose).

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: VBE20500, 5 kg: VBE25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend **51,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VBE30100, 500 ml: VBE30500</b> |
| Plated media:  | <b>55 mm: VBE50055, 90 mm: VBE50090</b>   |
| Colour:        | <b>Reddish Purple</b>                     |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Gelatin peptone     | 7,000  |
| Yeast extract       | 3,000  |
| Bile salts          | 1,500  |
| Glucose monohydrate | 10,000 |
| Lactose monohydrate | 10,000 |
| Sodium chloride     | 5,000  |
| Neutral red         | 0,030  |
| Crystal violet      | 0,002  |
| Agar                | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, purplish red colonies without swarming      |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** European Pharmacopoeia

### VIOLET RED BILE GLUCOSE AGAR, PH EUR - USP

A glucose containing selective and differential medium for the detection and enumeration of Enterobacteriaceae according to PH EUR (Violet Red Bile Glucose Agar – Harmonised).

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: VBH20500, 5 kg: VBH25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VBH30100, 500 ml: VBH30500</b> |
| Plated media:  | <b>55 mm: VBH50055, 90 mm: VBH50090</b>   |
| Colour:        | <b>Reddish Purple</b>                     |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Gelatin peptone     | 7,000  |
| Yeast extract       | 3,000  |
| Bile salts          | 1,500  |
| Glucose monohydrate | 10,000 |
| Sodium chloride     | 5,000  |
| Neutral red         | 0,030  |
| Crystal violet      | 0,002  |
| Agar                | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, purplish red colonies without swarming      |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** European Pharmacopoeia

Mossel (1985) Int. J. Food Microbiol. 2: 27.  
ISO 7402

### VIOLET RED BILE LACTOSE AGAR

A lactose containing selective and differential medium for the detection and enumeration of coliforms.

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: VBL20500, 5 kg: VBL25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **41,5 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VBL30100, 500 ml: VBL30500</b> |
| Plated media:  | <b>55 mm: VBL50055, 90 mm: VBL50090</b>   |
| Colour:        | <b>Reddish Purple</b>                     |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 10,000 |
| Bile salts      | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,002  |
| Agar            | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

**References:** APHA (1978) Standard Method for the Examination of Dairy Product. 14<sup>th</sup> ed. ISO 4832

### VIOLET RED BILE LACTOSE AGAR, BUFFERED

A lactose containing selective and differential medium for the detection and enumeration of coliforms in soured milk products.

### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: VBB20500, 5 kg: VBB25000</b> |
| Colour:      | <b>Beige</b>                           |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **44 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Mix well before pouring.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VBB30100, 500 ml: VBB30500</b> |
| Plated media:  | <b>55 mm: VBB50055, 90 mm: VBB50090</b>   |
| Colour:        | <b>Reddish Purple</b>                     |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                 |        |
|-----------------|--------|
| Peptones        | 10,000 |
| Bile salts      | 1,500  |
| Lactose         | 10,000 |
| Sodium chloride | 5,000  |
| Neutral red     | 0,030  |
| Crystal violet  | 0,002  |
| Buffers         | 3,000  |
| Agar            | 14,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth  | Incubation time: 24 h |
|------------------------------|------------------------|---|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good, purplish red colonies with precipitate halo |                       |
| <i>Proteus mirabilis</i>     | ATCC 29906             | Good, colourless colonies without swarming        |                       |
| <i>Enterococcus faecalis</i> | ATCC 29212             | Inhibited   |                       |

### VOGEL-JOHNSON AGAR BASE, USP

A selective and differential medium for the isolation of *Staphylococcus aureus* according to USP.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: VJA20500, 5 kg: VJA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **30 g** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Potassium Tellurite Solution, Sterile (PTS80030)**. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: VJA30100, 500 ml: VJA30500</b> |
| Plated media:  | <b>55 mm: VJA50055, 90 mm: VJA50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (at 25 °C): | <b>7,1 – 7,3</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                  |        |
|------------------|--------|
| Peptones         | 15,000 |
| Glycine          | 10,000 |
| Mannitol         | 10,000 |
| Lithium chloride | 5,000  |
| Phenol red       | 0,025  |
| Buffers          | 5,000  |
| Agar             | 15,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth                                | Incubation time: 48 h |
|------------------------------|------------------------|---------------------------------------|-----------------------|
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good, black colonies with yellow halo |                       |
| <i>Escherichia coli</i>      | ATCC 25922             | Inhibited                             |                       |

**References:** Vogel and Johnson (1961) J. Pub. Hlth. Lab. 18: 131.  
United States Pharmacopoeia

### WILKINS-CHALGREEN AGAR

A non-selective medium for the general cultivation of anaerobe micro-organisms especially recommended for antimicrobial susceptibility testing.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WCA20500, 5 kg: WCA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **46 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. If addition of blood is necessary, cool to 50 °C and add aseptically **50 ml of sterile defibrinated blood**. Mix well before pouring.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                            |   |
|----------------------------|---|
| Bottled media:             | <b>100 ml: WCA30100, 500 ml: WCA30500</b> |
| Plated media:              | <b>55 mm: WCA50055, 90 mm: WCA50090</b>   |
| Colour of blood free agar: | <b>Yellowish</b>                          |
| Colour of blood agar:      | <b>Ruby red</b>                           |
| pH (at 25 °C):             | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. If necessary, blood may be added to the melted bottled media according to the direction of the dehydrated media. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 25,000 |
| Glucose                                 | 1,000  |
| L-Arginine                              | 1,000  |
| Sodium chloride                         | 5,000  |
| Sodium pyruvate                         | 1,000  |
| Vitamins                                | 0,011  |
| Agar                                    | 13,000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions) |                       |
| <i>Clostridium pefringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Wilkins and Chalgren (1976) Antimicrob. Agents Chemoter. 10: 926.

## WILKINS-CHALGREN BROTH

A non-selective enrichment medium for the general cultivation of anaerobe micro-organisms especially recommended for antimicrobial susceptibility testing.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WCB20500, 5 kg: WCB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,1 (approx.) at 25 °C</b>          |

**Direction:** Suspend **33 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WCB30100, 500 ml: WCB30500</b> |
| Tubed media:   | <b>150 x 15 mm: WCB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,0 – 7,2</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|   |        |
|---|--------|
| Nutrient substrate (peptones, extracts) | 25,000 |
| L-Arginine                              | 1,000  |
| Glucose                                 | 1,000  |
| Sodium chloride                         | 5,000  |
| Sodium pyruvate                         | 1,000  |
| Vitamins                                | 0,011  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth                            | Incubation time: 48 h |
|-------------------------------|------------------------|-----------------------------------|-----------------------|
| <i>Bacteroides fragilis</i>   | ATCC 23745             | Good (under anaerobic conditions) |                       |
| <i>Clostridium pefringens</i> | ATCC 13124             | Good (under anaerobic conditions) |                       |

**References:** Wilkins and Chalgren (1976) Antimicrob. Agents Chemoter. 10: 926.

## WL DIFFERENTIAL AGAR

A selective medium for the control of industrial fermentation, particularly the processing of beer.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WLD20500, 5 kg: WLD25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **75 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WLD30100, 500 ml: WLD30500</b> |
| Plated media:  | <b>55 mm: WLD50055, 90 mm: WLD50090</b>   |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                    |         |
|--------------------|---------|
| Peptones           | 9,2000  |
| Glucose            | 50,0000 |
| Potassium chloride | 0,5500  |
| Calcium chloride   | 0,1250  |
| Magnesium sulphate | 0,1250  |
| Ferric chloride    | 0,0025  |
| Manganese sulphate | 0,0025  |
| Cycloheximide      | 0,0040  |
| Bromocresol green  | 0,0220  |
| Agar               | 15,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 30 °C | Growth    | Incubation time: 72 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Lactobacillus fermentum</i>  | ATCC 9338              | Good      |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Inhibited |                       |

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

## II. DEHYDRATED CULTURE MEDIA

### WL DIFFERENTIAL BROTH

A selective medium for the control of industrial fermentation, particularly the processing of beer.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WDB20500, 5 kg: WDB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **60 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WDB30100, 500 ml: WDB30500</b> |
| Tubed media:   | <b>150 x 15 mm: WDB40010 (10 ml)</b>      |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |         |
|--------------------|---------|
| Peptones           | 9,2000  |
| Glucose            | 50,0000 |
| Potassium chloride | 0,5500  |
| Calcium chloride   | 0,1250  |
| Magnesium sulphate | 0,1250  |
| Ferric chloride    | 0,0025  |
| Manganese sulphate | 0,0025  |
| Cycloheximide      | 0,0040  |
| Bromocresol green  | 0,0220  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

#### Quality Control:

| Test strains                    | Incubation temp: 30 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Lactobacillus fermentum</i>  | ATCC 4356              | Good      |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 6633              | Inhibited |                       |

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WL NUTRIENT AGAR

A non-selective medium for the control of industrial fermentation, particularly the processing of beer.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WLN20500, 5 kg: WLN25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **75 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WLN30100, 500 ml: WLN30500</b> |
| Plated media:  | <b>55 mm: WLN50055, 90 mm: WLN50090</b>   |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### FORMULA in g/l

|                    |         |
|--------------------|---------|
| Peptones           | 9,2000  |
| Glucose            | 50,0000 |
| Potassium chloride | 0,5500  |
| Calcium chloride   | 0,1250  |
| Magnesium sulphate | 0,1250  |
| Ferric chloride    | 0,0025  |
| Manganese sulphate | 0,0025  |
| Bromocresol green  | 0,0220  |
| Agar               | 15,0000 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

#### Quality Control:

| Test strains                    | Incubation temp: 30 °C | Growth | Incubation time: 72 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus fermentum</i>  | ATCC 9338              | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good   |                       |

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WL NUTRIENT BROTH

A non-selective medium for the control of industrial fermentation, particularly the processing of beer.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WLB20500, 5 kg: WLB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>5,5 (approx.) at 25 °C</b>          |

**Direction:** Suspend **60 g** in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WLB30100, 500 ml: WLB30500</b> |
| Tubed media:   | <b>150 x 15 mm: WLB40010 (10 ml)</b>      |
| Colour:        | <b>Greenish</b>                           |
| pH (at 25 °C): | <b>5,4 – 5,6</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                    |         |
|--------------------|---------|
| Peptones           | 9,2000  |
| Glucose            | 50,0000 |
| Potassium chloride | 0,5500  |
| Calcium chloride   | 0,1250  |
| Magnesium sulphate | 0,1250  |
| Ferric chloride    | 0,0025  |
| Manganese sulphate | 0,0025  |
| Bromocresol green  | 0,0220  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

| Test strains                    | Incubation temp: 30 °C | Growth | Incubation time: 48 h |
|---------------------------------|------------------------|--------|-----------------------|
| <i>Lactobacillus fermentum</i>  | ATCC 9338              | Good   |                       |
| <i>Saccharomyces cerevisiae</i> | ATCC 6633              | Good   |                       |

References: Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WORT AGAR BASE

A selective medium for the cultivation and enumeration of yeasts.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WOA20500, 5 kg: WOA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>4,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **49 g** in one litre of distilled water. Add **2,5 ml of Glycerol Supplement (GLC80100)** and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

The ready medium is slightly turbid, but exempt from any precipitation.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WOA30100, 500 ml: WOA30500</b> |
| Plated media:  | <b>55 mm: WOA50055, 90 mm: WOA50090</b>   |
| Colour:        | <b>Yellowish, slightly turbid</b>         |
| pH (25 °C):    | <b>4,7 – 4,9</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

#### Warning!

Melt and cool the medium quickly!

Prolonged heating diminish the gel strength of the agar.

#### FORMULA in g/l

|                   |       |
|-------------------|-------|
| Peptones          | 1,00  |
| Malt extract      | 15,00 |
| Maltose           | 12,75 |
| Dextrin           | 2,75  |
| Ammonium chloride | 1,00  |
| Buffers           | 1,50  |
| Agar              | 15,00 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated medium tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

References: Parfitt (1933) J. Dairy Sci. 16: 141.

### WORT BROTH BASE

A selective enrichment medium for the cultivation of yeasts.

#### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: WOB20500, 5 kg: WOB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous powder</b>              |
| pH before autoclaving: | <b>4,8 (approx.) at 25 °C</b>          |

**Direction:** Suspend **34 g** in one litre of distilled water. Add **2,5 ml of Glycerol Supplement (GLC80100)** and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: WOB30100, 500 ml: WOB30500</b> |
| Tubed media:   | <b>150 x 15 mm: WOB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>4,7 – 4,9</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

#### FORMULA in g/l

|                   |       |
|-------------------|-------|
| Peptones          | 1,00  |
| Malt extract      | 15,00 |
| Maltose           | 12,75 |
| Dextrin           | 2,75  |
| Ammonium chloride | 1,00  |
| Buffers           | 1,50  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                    | Incubation temp: 25 °C | Growth    | Incubation time: 48 h |
|---------------------------------|------------------------|-----------|-----------------------|
| <i>Saccharomyces cerevisiae</i> | ATCC 9763              | Good      |                       |
| <i>Escherichia coli</i>         | ATCC 25922             | Inhibited |                       |

References: Parfitt (1933) J. Dairy Sci. 16: 141.

### XLD AGAR, PH EUR - USP

A selective and differential medium for the isolation and differentiation of Gram-negative micro-organisms, especially *Shigella* spp. according to PH EUR (Agar Medium K – Xylose Lysine Deoxycholate Agar – Harmonised).

#### Dehydrated media

|              |  |
|--------------|--|
| Code Number: | <b>500 g: XLD20500, 5 kg: XLD25000</b> |
| Colour:      | <b>Pinkish</b>                         |
| Appearance:  | <b>Homogeneous hygroscopic powder</b>  |
| Final pH:    | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend **57 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Cool quickly! Mix well before pouring.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: XLD30100, 500 ml: XLD30500</b> |
| Plated media:  | <b>55 mm: XLD50055, 90 mm: XLD50090</b>   |
| Colour:        | <b>Red</b>                                |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                         |       |
|-------------------------|-------|
| Yeast extract           | 3,00  |
| L-Lysine                | 5,00  |
| Lactose monohydrate     | 7,50  |
| Sucrose                 | 7,50  |
| Xylose                  | 3,50  |
| Sodium thiosulphate     | 6,80  |
| Sodium chloride         | 5,00  |
| Sodium deoxycholate     | 2,50  |
| Ferric ammonium citrate | 0,80  |
| Phenol red              | 0,08  |
| Agar                    | 15,30 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Growth   | Incubation time: 24 h |
|-------------------------------|------------------------|--|-----------------------|
| <i>Escherichia coli</i>       | ATCC 25922             | Partially inhibited, yellow colonies with precipitate halo |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Good, red colonies with black centre                       |                       |
| <i>Shigella sonnei</i>        | ATCC 25931             | Good, red colonies   |                       |
| <i>Enterococcus faecalis</i>  | ATCC 29212             | Inhibited  |                       |

**References:** European Pharmacopoeia; ISO 6579

## YEAST EXTRACT AGAR

A non-selective medium for the plate count of micro-organisms in water and dairy products.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YEA20500, 5 kg: YEA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **25 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YEA30100, 500 ml: YEA30500</b> |
| Plated media:  | <b>55 mm: YEA50055, 90 mm: YEA50090</b>   |
| Colour:        | <b>Yellowish</b>                          |
| pH (25 °C):    | <b>7,1 – 7,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|               |    |
|---------------|----|
| Peptones      | 7  |
| Yeast extract | 3  |
| Agar          | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                 | Incubation temp: 37 °C | Growth | Incubation time: 24 h |
|------------------------------|------------------------|--------|-----------------------|
| <i>Escherichia coli</i>      | ATCC 25922             | Good   |                       |
| <i>Staphylococcus aureus</i> | ATCC 29213             | Good   |                       |

**References:** Windle and Taylor (1958) The Examination of Waters and Water Supplies, 7<sup>th</sup> ed.

## YEAST MALT AGAR

A non-selective medium for the cultivation of fungi.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YMA20500, 5 kg: YMA25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,2 (approx.) at 25 °C</b>          |

**Direction:** Suspend **37 g** in one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

### Warning!

The ready medium is slightly turbid, but exempt from any precipitation.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YMA30100, 500 ml: YMA30500</b> |
| Plated media:  | <b>55 mm: YMA50055, 90 mm: YMA50090</b>   |
| Colour:        | <b>Yellowish, slightly turbid</b>         |
| pH (25 °C):    | <b>6,1 – 6,3</b>                          |

**Direction:** Dispense the melted bottled media aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|               |    |
|---------------|----|
| Peptones      | 6  |
| Malt extract  | 3  |
| Yeast extract | 3  |
| Glucose       | 10 |
| Agar          | 15 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains            | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good   |                       |

**References:** Atlas and Park (1993) Handbook of Micr. Media

## YEAST MALT BROTH

A non-selective medium for the cultivation of fungi.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YMB20500, 5 kg: YMB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>6,2 (approx.) at 25 °C</b>          |



## II. DEHYDRATED CULTURE MEDIA

**Direction:** Suspend 23 g in one litre of distilled water and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YMB30100, 500 ml: YMB30500</b> |
| Tubed media:   | <b>150 x 15 mm: YMB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>6,1 – 6,3</b>                          |

**Direction:** Dispense the bottled media aseptically into sterile final containers. Media in tubes are ready to use.

### FORMULA in g/l

|               |    |
|---------------|----|
| Peptones      | 7  |
| Malt extract  | 3  |
| Yeast extract | 3  |
| Glucose       | 10 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains            | Incubation temp: 25 °C | Growth | Incubation time: 48 h |
|-------------------------|------------------------|--------|-----------------------|
| <i>Candida albicans</i> | ATCC 10231             | Good   |                       |

**References:** Atlas and Park (1993) Handbook of Micr. Media

## YERSINIA AGAR BASE

A selective and differential medium for the isolation of *Yersinia enterocolitica*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YAB20500, 5 kg: YAB25000</b> |
| Colour:                | <b>Beige</b>                           |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend 30 g in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Yersinia (CIN) Selective Supplement (CIN80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YAB30100, 500 ml: YAB30500</b> |
| Plated media:  | <b>55 mm: YAB50055, 90 mm: YAB50090</b>   |
| Colour:        | <b>Purplish red</b>                       |
| pH (25 °C):    | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the melted bottled media according to the direction of the dehydrated media and dispense aseptically into sterile Petri-dishes. Media in Petri-dishes are ready to use.

### FORMULA in g/l

|                     |        |
|---------------------|--------|
| Peptones            | 24,000 |
| Mannitol            | 20,000 |
| Sodium pyruvate     | 2,000  |
| Sodium chloride     | 1,000  |
| Sodium deoxycholate | 0,500  |
| Magnesium sulphate  | 0,010  |
| Neutral red         | 0,020  |
| Crystal violet      | 0,001  |
| Agar                | 12,500 |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2–8 °C.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth                          | Incubation time: 24 h |
|--------------------------------|------------------------|---------------------------------|-----------------------|
| <i>Yersinia enterocolitica</i> | ATCC 27729             | Good, red "bull's eye" colonies |                       |
| <i>Escherichia coli</i>        | ATCC 25922             | Inhibited                       |                       |

**References:** Schiemann (1979) Can. J. Microbiol. 25: 1928.

## YERSINIA BROTH BASE

A selective medium for the selective enrichment of *Yersinia enterocolitica*.

### Dehydrated media

|                        |  |
|------------------------|--|
| Code Number:           | <b>500 g: YBB20500, 5 kg: YBB25000</b> |
| Colour:                | <b>Yellowish</b>                       |
| Appearance:            | <b>Homogeneous hygroscopic powder</b>  |
| pH before autoclaving: | <b>7,4 (approx.) at 25 °C</b>          |

**Direction:** Suspend 16,5 g in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Yersinia (CIN) Selective Supplement (CIN80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

### Prepared media

|                |   |
|----------------|---|
| Bottled media: | <b>100 ml: YBB30100, 500 ml: YBB30500</b> |
| Tubed media:   | <b>150 x 15 mm: YBB40010 (10 ml)</b>      |
| Colour:        | <b>Yellowish</b>                          |
| pH (at 25 °C): | <b>7,3 – 7,5</b>                          |

**Direction:** Supplement the bottled media according to the direction of the dehydrated media and dispense aseptically into sterile test tubes. Media in tubes are ready to use.

### FORMULA in g/l

|                 |      |
|-----------------|------|
| Peptones        | 28,0 |
| Sodium pyruvate | 2,5  |
| Buffers         | 2,5  |

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                   | Incubation temp: 37 °C | Growth    | Incubation time: 24 h |
|--------------------------------|------------------------|-----------|-----------------------|
| <i>Yersinia enterocolitica</i> | ATCC 27729             | Good      |                       |
| <i>Escherichia coli</i>        | ATCC 25922             | Inhibited |                       |
| <i>Enterococcus faecalis</i>   | ATCC 29212             | Inhibited |                       |

**References:** Schiemann (1979) Can. J. Microbiol. 25: 1928.

## II. DEHYDRATED CULTURE MEDIA

### ANTIBIOTIC ASSAY MEDIA

Media for the microbiological assay of antibiotics according to USP and PH EUR.

#### Dehydrated media

|              |   |
|--------------|---|
| Code Number: | 500 g: (A01 – A39)20500, 5 kg: (A01 – A39)25000 |
| Colour:      | Yellowish                                       |
| Appearance:  | Homogeneous hygroscopic powder                  |

**Direction:** Suspend the amount indicated below of dehydrated media in one litre of distilled water. If necessary, add the supplement and heat with frequent agitation until the medium boils well (in case of agars) or heat gently to dissolve the medium completely (in case of broths). Sterilise by autoclaving at 121 °C for 15 minutes.

#### MEDIUM 1

|                |      |
|----------------|------|
| Peptone        | 6,0  |
| Casein peptone | 4,0  |
| Yeast extract  | 3,0  |
| Beef extract   | 1,5  |
| Glucose        | 1,0  |
| Agar           | 15,5 |

31 g/l pH = 6,5 – 6,7

#### MEDIUM 9

|                                |      |
|--------------------------------|------|
| Casein peptone                 | 17,0 |
| Soy peptone                    | 3,0  |
| Glucose                        | 2,5  |
| Sodium chloride                | 5,0  |
| Dipotassium hydrogen phosphate | 2,5  |
| Agar                           | 20,0 |

50 g/l pH = 7,1 – 7,3

#### MEDIUM 32

|                    |      |
|--------------------|------|
| Peptone            | 6,0  |
| Casein peptone     | 4,0  |
| Yeast extract      | 3,0  |
| Beef extract       | 1,5  |
| Glucose            | 1,0  |
| Manganese sulphate | 0,3  |
| Agar               | 15,2 |

31 g/l pH = 6,5 – 6,7

#### MEDIUM 2

|               |      |
|---------------|------|
| Peptone       | 6,0  |
| Yeast extract | 3,0  |
| Beef extract  | 1,5  |
| Agar          | 15,5 |

26 g/l pH = 6,5 – 6,7

#### MEDIUM 10 BASE

|                                 |      |
|---------------------------------|------|
| Casein peptone                  | 17,0 |
| Soy peptone                     | 3,0  |
| Glucose                         | 2,5  |
| Sodium chloride                 | 5,0  |
| K <sub>2</sub> HPO <sub>4</sub> | 2,5  |
| Agar                            | 12,0 |

42 g/l + 10 ml TWEEN 80 (TWS80100) pH = 7,1 – 7,3

#### MEDIUM 34 BASE

|                 |    |
|-----------------|----|
| Peptone         | 10 |
| Beef extract    | 10 |
| Sodium chloride | 3  |

23 g/l + 10 ml Glycerol (GLC80100) pH = 6,9 – 7,1

#### MEDIUM 3

|                                 |      |
|---------------------------------|------|
| Peptone                         | 5,00 |
| Yeast extract                   | 1,50 |
| Beef extract                    | 1,50 |
| Glucose                         | 1,00 |
| Sodium chloride                 | 3,50 |
| K <sub>2</sub> HPO <sub>4</sub> | 3,68 |
| KH <sub>2</sub> PO <sub>4</sub> | 1,32 |

17,5 g/l pH = 6,9 – 7,1

#### MEDIUM 11

|                |      |
|----------------|------|
| Peptone        | 6,0  |
| Casein peptone | 4,0  |
| Yeast extract  | 3,0  |
| Beef extract   | 1,5  |
| Glucose        | 1,0  |
| Agar           | 15,5 |

31 g/l pH = 8,2 – 8,4

#### MEDIUM 35 BASE

|                 |    |
|-----------------|----|
| Peptone         | 10 |
| Beef extract    | 10 |
| Sodium chloride | 3  |
| Agar            | 17 |

40 g/l + 10 ml Glycerol (GLC80100) pH = 6,9 – 7,1

#### MEDIUM 5

|               |      |
|---------------|------|
| Peptone       | 6,0  |
| Yeast extract | 3,0  |
| Beef extract  | 1,5  |
| Agar          | 15,5 |

26 g/l pH = 7,8 – 8,0

#### MEDIUM 13

|         |    |
|---------|----|
| Peptone | 10 |
| Glucose | 20 |

30 g/l pH = 5,5 – 5,7

#### MEDIUM 36

|                 |    |
|-----------------|----|
| Casein peptone  | 15 |
| Soy peptone     | 5  |
| Sodium chloride | 5  |
| Agar            | 15 |

40 g/l pH = 7,2 – 7,4

#### MEDIUM 8

|               |      |
|---------------|------|
| Peptone       | 6,0  |
| Yeast extract | 3,0  |
| Beef extract  | 1,5  |
| Agar          | 15,5 |

26 g/l pH = 5,8 – 6,0

#### MEDIUM 19

|                 |      |
|-----------------|------|
| Peptone         | 9,4  |
| Yeast extract   | 4,7  |
| Beef extract    | 2,4  |
| Glucose         | 10,0 |
| Sodium chloride | 10,0 |
| Agar            | 23,5 |

60 g/l pH = 6,0 – 6,2

#### MEDIUM 39

|                                 |      |
|---------------------------------|------|
| Peptone                         | 5,00 |
| Yeast extract                   | 1,50 |
| Beef extract                    | 1,50 |
| Glucose                         | 1,00 |
| Sodium chloride                 | 3,50 |
| K <sub>2</sub> HPO <sub>4</sub> | 3,68 |
| KH <sub>2</sub> PO <sub>4</sub> | 1,32 |

17,5 g/l pH = 7,8 – 8,0

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the bottled media protected from light at room temperature. Store the plated media protected from light at 2-8 °C, and the tubed media protected from light at room temperature.

**References:** European Pharmacopoeia, United States Pharmacopoeia

## II. DEHYDRATED CULTURE MEDIA

### CULTURE MEDIA FOR AMINO ACID DECOMPOSITION STUDIES

Differential media for the differentiation of micro-organisms on the basis of their ability to decompose (decarboxylate or dihydrolysate) the amino acids.

|                         |                                |
|-------------------------|--------------------------------|
| <b>Dehydrated media</b> |                                |
| Code Numbers:           | See below                      |
| Colour:                 | Beige                          |
| Appearance:             | Homogeneous hygroscopic powder |
| pH before autoclaving:  | See below                      |

**Direction:** Suspend the indicated amount of dehydrated media listed below in one litre of distilled water. In case of bases add the appropriate amount of amino acid (in case of Moeller medium 10 g, in case of Falkow and Taylor media 5 g). Mix well and heat gently to dissolve the medium completely. Check the pH and readjust if necessary. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. After inoculation overlie the tubes aseptically with 4 – 5 mm sterile mineral oil (except Taylor Broth).

#### FORMULA in g/l

##### Moeller Broth Base

**Code Number:** DBM20500

|                       |        |
|-----------------------|--------|
| Peptone               | 10,500 |
| Glucose               | 0,500  |
| Pyridoxal             | 0,005  |
| Bromocresol purple    | 0,010  |
| Cresol red            | 0,005  |
| 11 g/l pH = 5,9 – 6,3 |        |

##### Falkow Broth Base

**Code Number:** DBF20500

|                      |      |
|----------------------|------|
| Peptone              | 8,00 |
| Glucose              | 1,00 |
| Bromocresol purple   | 0,02 |
| 9 g/l pH = 6,6 – 7,0 |      |

##### Taylor Broth Base

**Code Number:** DBT20500

|                      |       |
|----------------------|-------|
| Yeast extract        | 3,000 |
| Glucose              | 1,000 |
| Bromocresol purple   | 0,016 |
| 4 g/l pH = 5,9 – 6,3 |       |

##### Moeller Broth, Arginine

**Code Number:** DBM20500-AR

|                       |        |
|-----------------------|--------|
| Peptone               | 10,500 |
| Glucose               | 0,500  |
| L-Arginine            | 10,000 |
| Pyridoxal             | 0,005  |
| Bromocresol purple    | 0,010  |
| Cresol red            | 0,005  |
| 21 g/l pH = 5,9 – 6,3 |        |

##### Falkow Broth, Arginine

**Code Number:** DBF20500-AR

|                       |      |
|-----------------------|------|
| Peptone               | 8,00 |
| Glucose               | 1,00 |
| L-Arginine            | 5,00 |
| Bromocresol purple    | 0,02 |
| 14 g/l pH = 6,6 – 7,0 |      |

##### Taylor Broth, Arginine

**Code Number:** DBT20500-AR

|                      |       |
|----------------------|-------|
| Yeast extract        | 3,000 |
| Glucose              | 1,000 |
| L-Arginine           | 5,000 |
| Bromocresol purple   | 0,016 |
| 9 g/l pH = 5,9 – 6,3 |       |

##### Moeller Broth, Lysine

**Code Number:** DBM20500-LY

|                       |        |
|-----------------------|--------|
| Peptone               | 10,500 |
| Glucose               | 0,500  |
| L-Lysine              | 10,000 |
| Pyridoxal             | 0,005  |
| Bromocresol purple    | 0,010  |
| Cresol Red            | 0,005  |
| 21 g/l pH = 5,9 – 6,3 |        |

##### Falkow Broth, Lysine

**Code Number:** DBF20500-LY

|                       |       |
|-----------------------|-------|
| Peptone               | 8,00  |
| Glucose               | 1,00  |
| L-Lysine              | 5,000 |
| Bromocresol purple    | 0,02  |
| 14 g/l pH = 6,6 – 7,0 |       |

##### Taylor Broth, Lysine

**Code Number:** DBT20500-LY

|                      |       |
|----------------------|-------|
| Yeast extract        | 3,000 |
| Glucose              | 1,000 |
| L-Lysine             | 5,000 |
| Bromocresol purple   | 0,016 |
| 9 g/l pH = 5,9 – 6,3 |       |

##### Moeller Broth, Ornithine

**Code Number:** DBM20500-OR

|                       |        |
|-----------------------|--------|
| Peptone               | 10,500 |
| Dextrose              | 0,500  |
| L-Ornithine           | 10,000 |
| Pyridoxal             | 0,005  |
| Bromocresol purple    | 0,010  |
| Cresol red            | 0,005  |
| 21 g/l pH = 5,9 – 6,3 |        |

##### Falkow Broth, Ornithine

**Code Number:** DBF20500-OR

|                       |       |
|-----------------------|-------|
| Peptone               | 8,00  |
| Glucose               | 1,00  |
| L-Ornithine           | 5,000 |
| Bromocresol purple    | 0,02  |
| 14 g/l pH = 6,6 – 7,0 |       |

##### Taylor Broth, Ornithine

**Code Number:** DBT20500-OR

|                      |       |
|----------------------|-------|
| Yeast extract        | 3,000 |
| Glucose              | 1,000 |
| L-Ornithine          | 5,000 |
| Bromocresol purple   | 0,016 |
| 9 g/l pH = 5,9 – 6,3 |       |

**Note:** The typical formula can be adjusted to obtain optimal performance.

## II. DEHYDRATED CULTURE MEDIA

### Prepared media

|   |  |
|---|--|
| Bottled Moeller Broth Base:                                 | 100 ml: DBM30100, 500 ml: DBM30500       |
| Bottled Moeller Broth, Arginine:                            | 100 ml: DBM30100-AR, 500 ml: DBM30500-AR |
| Bottled Moeller Broth, Lysine:                              | 100 ml: DBM30100-LY, 500 ml: DBM30500-LY |
| Bottled Moeller Broth, Ornithine:                           | 100 ml: DBM30100-OR, 500 ml: DBM30500-OR |
| Tubed Moeller Broth Base: (covered with paraffin oil)       | 100 x 12 mm: DBM40002 (2 ml)             |
| Tubed Moeller Broth, Arginine: (covered with paraffin oil)  | 100 x 12 mm: DBM40002-AR (2 ml)          |
| Tubed Moeller Broth, Lysine: (covered with paraffin oil)    | 100 x 12 mm: DBM40002-LY (2 ml)          |
| Tubed Moeller Broth, Ornithine: (covered with paraffin oil) | 100 x 12 mm: DBM40002-OR (2 ml)          |

|  |  |
|--|--|
| Bottled Falkow Broth Base:                                 | 100 ml: DBF30100, 500 ml: DBF30500       |
| Bottled Falkow Broth, Arginine:                            | 100 ml: DBF30100-AR, 500 ml: DBF30500-AR |
| Bottled Falkow Broth, Lysine:                              | 100 ml: DBF30100-LY, 500 ml: DBF30500-LY |
| Bottled Falkow Broth, Ornithine:                           | 100 ml: DBF30100-OR, 500 ml: DBF30500-OR |
| Tubed Falkow Broth Base: (covered with paraffin oil)       | 100 x 12 mm: DBF40002 (2 ml)             |
| Tubed Falkow Broth, Arginine: (covered with paraffin oil)  | 100 x 12 mm: DBF40002-AR (2 ml)          |
| Tubed Falkow Broth, Lysine: (covered with paraffin oil)    | 100 x 12 mm: DBF40002-LY (2 ml)          |
| Tubed Falkow Broth, Ornithine: (covered with paraffin oil) | 100 x 12 mm: DBF40002-OR (2 ml)          |

|                                  |  |
|----------------------------------|--|
| Bottled Taylor Broth Base:       | 100 ml: DBT30100, 500 ml: DBT30500       |
| Bottled Taylor Broth, Arginine:  | 100 ml: DBT30100-AR, 500 ml: DBT30500-AR |
| Bottled Taylor Broth, Lysine:    | 100 ml: DBT30100-LY, 500 ml: DBT30500-LY |
| Bottled Taylor Broth, Ornithine: | 100 ml: DBT30100-OR, 500 ml: DBT30500-OR |
| Tubed Taylor Broth Base:         | 100 x 12 mm: DBT40002 (2 ml)             |
| Tubed Taylor Broth, Arginine:    | 100 x 12 mm: DBT40002-AR (2 ml)          |
| Tubed Taylor Broth, Lysine:      | 100 x 12 mm: DBT40002-LY (2 ml)          |
| Tubed Taylor Broth, Ornithine:   | 100 x 12 mm: DBT40002-OR (2 ml)          |

|                |           |
|----------------|-----------|
| Colour:        | Purple    |
| pH (at 25 °C): | See above |

**Direction:** Dispense the bottled media aseptically into sterile test tubes. After inoculation overlie the tubes aseptically with 4 – 5 mm sterile mineral oil (except Taylor Broth). Media in tubes are ready to use.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature and use before the expiry date on the label. Store the prepared media protected from light at room temperature.

### Quality Control:

| Test strains                  | Incubation temp: 37 °C | Reactions               | Incubation time: 24 h |
|-------------------------------|------------------------|-------------------------|-----------------------|
| <b>Broth bases</b>            |                        |                         |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Positive, violet colour |                       |
| <i>Citrobacter freundii</i>   | ATCC 8090              | Negative, yellow colour |                       |
| <b>Broths with arginine</b>   |                        |                         |                       |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853             | Positive, violet colour |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Negative, yellow colour |                       |
| <b>Broths with lysine</b>     |                        |                         |                       |
| <i>Salmonella typhimurium</i> | ATCC 14028             | Positive, violet colour |                       |
| <i>Citrobacter freundii</i>   | ATCC 8090              | Negative, yellow colour |                       |
| <b>Broths with ornithine</b>  |                        |                         |                       |
| <i>Proteus mirabilis</i>      | ATCC 29906             | Positive, violet colour |                       |
| <i>Klebsiella pneumoniae</i>  | ATCC 13883             | Negative, yellow colour |                       |

## II. DEHYDRATED CULTURE MEDIA

### PHARMABIO® CULTURE MEDIA

The **PharmaBio®** product range includes excellent quality culture media according to the pharmacopoeias. All these items are provided only after strict tests which are conducted according to the pharmacopoeias' requirements. Certificates of analysis contain these test results. See their descriptions in the alphabetical list of media.

#### PharmaBio® BAIRD-PARKER AGAR BASE

Code Number: **PBPA20500, PBPA25000**

**See:** Baird-Parker Agar Base, PH EUR

#### PharmaBio® KING A AGAR BASE

Code Number: **PKAA20500, PKAA25000**

**See:** King A Agar Base, USP

#### PharmaBio® BRILLIANT GREEN (BPLS) AGAR

Code Number: **PBPE20500, PBPE25000**

**See:** Brilliant Green (BPLS) Agar, PH EUR

#### PharmaBio® KING B AGAR BASE

Code Number: **PKAB20500, PKAB25000**

**See:** King B Agar Base, USP

#### PharmaBio® CASEIN PEPTONE LECITHIN POLYSORBATE BROTH BASE

Code Number: **PCLP20500, PCLP25000**

**See:** Casein Peptone Lecithin Polysorbate Broth Base, USP

#### PharmaBio® LACTOSE BROTH

Code Number: **PLAB20500, PLAB25000**

**See:** Lactose Broth, PH EUR

#### PharmaBio® CETRIMIDE AGAR BASE

Code Number: **PCAB20500, PCAB25000**

**See:** Cetrimide Agar Base, PH EUR - USP

#### PharmaBio® LACTOSE SULPHITE BROTH BASE

Code Number: **PLSU20500, PLSU25000**

**See:** Lactose Sulphite Broth Base, PH EUR

#### PharmaBio® COLUMBIA AGAR

Code Number: **PCLE20500, PCLE25000**

**See:** Columbia Agar, PH EUR - USP

#### PharmaBio® MACCONKEY AGAR

Code Number: **PMCE20500, PMCE25000**

**See:** MacConkey Agar, PH EUR - USP

#### PharmaBio® DEOXYCHOLATE CITRATE AGAR

Code Number: **PDCE20500, PDCE25000**

**See:** Deoxycholate Citrate Agar, PH EUR

#### PharmaBio® MACCONKEY BROTH

Code Number: **PMBE20500, PMBE25000**

**See:** MacConkey Broth, PH EUR - USP

#### PharmaBio® EE BROTH

Code Number: **PEEB20500, PEEB25000**

**See:** EE Broth, PH EUR - USP

#### PharmaBio® MANNITOL SALT AGAR

Code Number: **PMSA20500, PMSA25000**

**See:** Mannitol Salt Agar, PH EUR - USP

#### PharmaBio® EOSIN METHYLENE BLUE AGAR

Code Number: **PEMB20500, PEMB25000**

**See:** Eosin Methylene Blue Agar, USP

#### PharmaBio® NEUTRALISING FLUID BASE

Code Number: **PNSE20500, PNSE25000**

**See:** Neutralising Fluid Base, PH EUR

## II. DEHYDRATED CULTURE MEDIA

### PharmaBio® PEPTON WATER, BUFFERED

Code Number: PPBE20500, PPBE25000

See: Pepton Water, Buffered, PH EUR - USP

### PharmaBio® POTATO DEXTROSE AGAR

Code Number: PPDA20500, PPDA25000

See: Potato Dextrose Agar, PH EUR - USP

### PharmaBio® R2A AGAR

Code Number: PR2A20500, PR2A25000

See: R2A Agar, PH EUR

### PharmaBio® RAPPAPORT-VASSILIADIS BROTH BASE

Code Number: PRVB20500, PRVB25000

See: Rappaport-Vassiliadis Broth Base, PH EUR - USP

### PharmaBio® REINFORCED CLOSTRIDIAL MEDIUM

Code Number: PRCM20500, PRCM25000

See: Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP

### PharmaBio® SABOURAUD CHLORAMPHENICOL AGAR

Code Number: PSCE20500, PSCE25000

See: Sabouraud Chloramphenicol Agar, PH EUR

### PharmaBio® SABOURAUD DEXTROSE (4%) AGAR

Code Number: PSDA20500, PSDA25000

See: Sabouraud Dextrose (4%) Agar, PH EUR - USP

### PharmaBio® SABOURAUD DEXTROSE BROTH

Code Number: PSDB20500, PSDB25000

See: Sabouraud Dextrose Broth, PH EUR - USP

### PharmaBio® SELENITE CYSTINE BROTH BASE

Code Number: PSCB20500, PSCB25000

See: Selenite Cystine Broth Base, USP

### PharmaBio® TETRATHIONATE BROTH BASE, PH EUR

Code Number: PTTE20500, PTTE25000

See: Tetrathionate Broth Base, PH EUR

### PharmaBio® TETRATHIONATE BROTH BASE, USP

Code Number: PTTB20500, PTTB25000

See: Tetrathionate Broth Base, USP

### PharmaBio® THIOGLYCOLLATE MEDIUM

Code Number: PTHM20500, PTHM25000

See: Thioglycollate Medium, PH EUR

### PharmaBio® TRYPTONE SOYA AGAR

Code Number: PTSE20500, PTSE25000

See: Tryptone Soya Agar, PH EUR - USP

### PharmaBio® TRYPTONE SOYA BROTH

Code Number: PTSB20500, PTSB25000

See: Tryptone Soya Broth, PH EUR - USP

### PharmaBio® TSI AGAR

Code Number: PTSI20500, PTSI25000

See: Triple Sugar Iron (TSI) Agar, PH EUR

### PharmaBio® VIOLET RED BILE GLUCOSE AGAR, PH EUR

Code Number: PVBE20500, PVBE25000

See: Violet Red Bile Glucose Agar, PH EUR

### PharmaBio® VIOLET RED BILE GLUCOSE AGAR, PH EUR - USP

Code Number: PVBH20500, PVBH25000

See: Violet Red Bile Glucose Agar, PH EUR - USP

### PharmaBio® VOGEL-JOHNSON AGAR BASE

Code Number: PVJA20500, PVJA25000

See: Vogel-Johnson Agar Base, USP

### PharmaBio® XLD AGAR

Code Number: PXLD20500, PXLD25000

See: XLD Agar, PH EUR - USP

## II. DEHYDRATED CULTURE MEDIA

### CULTURE MEDIA FOR THE METHOD OF PHARMACOPOEIAS

#### A. Culture media for the method of the European Pharmacopoeia

|  |   |
|--|---|
| <b>BROTH MEDIUM A<br/>(CASEIN SOYA-BEAN DIGEST BROTH)</b><br><br><b>See:</b> Tryptone Soya Broth, PH EUR - USP                       | <b>AGAR MEDIUM L (BRILLIANT GREEN PHENOL RED LACTOSE SUCROSE<br/>AGAR)</b><br><br><b>See:</b> Brilliant Green (BPLS) Agar, PH EUR |
| <b>AGAR MEDIUM B (CASEIN SOYA-BEAN DIGEST AGAR)</b><br><br><b>See:</b> Tryptone Soya Agar, PH EUR - USP                              | <b>AGAR MEDIUM M (TSI AGAR)</b><br><br><b>See:</b> Triple Sugar Iron (TSI) Agar, PH EUR   |
| <b>AGAR MEDIUM C<br/>(SABOURAUD GLUCOSE AGAR WITH CHLORAMPHENICOL)</b><br><br><b>See:</b> Sabouraud Chloramphenicol Agar, PH EUR     | <b>AGAR MEDIUM N (CETRIMIDE AGAR BASE)</b><br><br><b>See:</b> Cetrimide Agar Base, PH EUR - USP                                   |
| <b>BROTH MEDIUM D (LACTOSE BROTH)</b><br><br><b>See:</b> Lactose Broth, PH EUR   | <b>AGAR MEDIUM O (BAIRD-PARKER AGAR BASE)</b><br><br><b>See:</b> Baird-Parker Agar Base, PH EUR                                   |
| <b>BROTH MEDIUM E (ENTEROBACTERIA ENRICHMENT BROTH,<br/>MOSSEL)</b><br><br><b>See:</b> EE Broth, PH EUR - USP                        | <b>MEDIUM P (REINFORCED MEDIA FOR CLOSTRIDIA)</b><br><br><b>See:</b> Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP  |
| <b>AGAR MEDIUM F<br/>(CRYSTAL VIOLET NEUTRAL RED BILE AGAR WITH GLUCOSE)</b><br><br><b>See:</b> Violet Red Bile Glucose Agar, PH EUR | <b>AGAR MEDIUM Q (COLUMBIA AGAR)</b><br><br><b>See:</b> Columbia Agar, PH EUR - USP   |
| <b>BROTH MEDIUM G (MACCONKEY BROTH)</b><br><br><b>See:</b> MacConkey Broth, PH EUR - USP   | <b>BROTH MEDIUM R (LACTOSE SULPHITE BROTH BASE)</b><br><br><b>See:</b> Lactose Sulphite Broth Base, PH EUR                        |
| <b>AGAR MEDIUM H (MACCONKEY AGAR)</b><br><br><b>See:</b> MacConkey Agar, PH EUR - USP  | <b>AGAR MEDIUM S (R2A AGAR)</b><br><br><b>See:</b> R2A Agar, PH EUR   |
| <b>BROTH MEDIUM I<br/>(TETRATHIONATE BILE BRILLIANT GREEN BROTH)</b><br><br><b>See:</b> Tetrathionate Broth Base, PH EUR             | <b>BUFFERED SODIUM CHLORIDE PEPTONE SOLUTION PH 7.0</b><br><br><b>See:</b> Peptone Water, Buffered, PH EUR - USP                  |
| <b>AGAR MEDIUM J (DESOXYCHOLATE CITRATE AGAR)</b><br><br><b>See:</b> Deoxycholate Citrate Agar, PH EUR                               | <b>FLUID THIOGLYCOLLATE MEDIUM FOR STERILITY TESTING</b><br><br><b>See:</b> Thioglycollate Medium, PH EUR                         |
| <b>AGAR MEDIUM K (XYLOSE LYSINE DEOXYCHOLATE AGAR)</b><br><br><b>See:</b> XLD Agar, PH EUR - USP                                     | <b>NEUTRALISING FLUID BASE</b><br><br><b>See:</b> Neutralising Fluid Base, PH EUR   |

## II. DEHYDRATED CULTURE MEDIA

### B. Culture media for the method of the United States Pharmacopoeia

#### CASEIN PEPTONE LECITHIN POLYSORBATE BROTH BASE, USP

See: Casein Peptone Lecithin Polysorbate Broth Base, USP

#### EOSIN METHYLENE BLUE AGAR, USP

See: Eosin Methylene Blue Agar, USP

#### KING A AGAR, USP

See: King A Agar Base, USP

#### KING B AGAR, USP

See: King B Agar Base, USP

#### SELENITE-CYSTINE BROTH BASE, USP

See: Selenite Cystine Broth Base, USP

#### TETRATONATE BROTH BASE, USP

See: Tetratolate Broth Base, USP

#### VOGEL-JOHNSON AGAR, USP

See: Vogel-Johnson Agar Base, USP

### C. Culture media for the harmonised method

#### BUFFERED SODIUM CHLORIDE PEPTONE SOLUTION pH 7.0

See: Peptone Water, Buffered, PH EUR - USP

#### CASEIN SOYA BEAN DIGEST AGAR

See: Tryptone Soya Agar, PH EUR - USP

#### CASEIN SOYA BEAN DIGEST BROTH

See: Tryptone Soya Broth, PH EUR - USP

#### CETRIMIDE AGAR

See: Cetrinide Agar Base, PH EUR - USP

#### COLUMBIA AGAR

See: Columbia Agar, PH EUR - USP

#### ENTEROBACTERIA ENRICHMENT BROTH, MOSSEL

See: EE Broth, PH EUR - USP

#### MACCONKEY AGAR

See: MacConkey Agar, PH EUR - USP

#### MACCONKEY BROTH

See: MacConkey Broth, PH EUR - USP

#### MANNITOL SALT AGAR

See: Mannitol Salt Agar, PH EUR - USP

#### POTATO DEXTROSE AGAR

See: Potato Dextrose Agar, PH EUR - USP

#### RAPPAPORT VASSILIADIS SALMONELLA ENRICHMENT BROTH

See: Rappaport Vassiliadis Broth Base, PH EUR - USP

#### REINFORCED MEDIUM FOR CLOSTRIDIA

See: Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP

#### SABOURAUD DEXTROSE AGAR

See: Sabouraud Dextrose (4%) Agar, PH EUR - USP

#### SABOURAUD DEXTROSE BROTH

See: Sabouraud Dextrose Broth, PH EUR - USP

#### VIOLET RED BILE GLUCOSE AGAR

See: Violet Red Bile Glucose Agar, PH EUR - USP

#### XYLOSE, LYSINE, DEOXYCHOLATE AGAR

See: XLD Agar, PH EUR - USP



# **III. SUPPLEMENTS**



### III. SUPPLEMENTS

#### AEROMONAS SELECTIVE SUPPLEMENT

FOR 500 ml OF AEROMONAS AGAR

Freeze-dried mixture for the isolation of *Aeromonas* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: AES80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **30 g of Aeromonas Agar Base (AEA20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Aeromonas Selective Supplement (AES80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

##### FORMULA [mg/vial]

|            |     |
|------------|-----|
| Ampicillin | 2,5 |
|------------|-----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

NEW PRODUCT

#### BACITRACIN (150 mg) SUPPLEMENT

Freeze-dried mixture for the supplementation of Chocolate Agar Base.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: BAC80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **18 g of Chocolate Agar Base** in 455 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **35 ml of sterile defibrinated blood** and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of **one vial of Growth Factor Mixture Hydration Fluid** with 5 ml of sterile distilled water and add aseptically to the **Growth Factor Mixture (GFM80005)**. Mix well and add aseptically to the medium. Dissolve the contents of **one vial of Bacitracin (150 mg) Supplement (BAC80004)** with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

##### FORMULA [mg/vial]

|            |     |
|------------|-----|
| Bacitracin | 150 |
|------------|-----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

NEW PRODUCT

#### AMPICILLIN (5 mg) SUPPLEMENT

Freeze-dried mixture for the supplementation of Columbia Blood Agar Base.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: AMP80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **42 g of Columbia Blood Agar Base** in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **50 ml of sterile defibrinated sheep blood**. Dissolve the contents of **one vial of Ampicillin (5 mg) Supplement (AMP80004)** with 4 ml of sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

##### FORMULA [mg/vial]

|            |   |
|------------|---|
| Ampicillin | 5 |
|------------|---|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### BORDETELLA SELECTIVE SUPPLEMENT

FOR 500 ml OF BORDETELLA AGAR

Freeze-dried mixture for the isolation of *Bordetella* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: BSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **26 g of Charcoal Agar Base** in 450 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile defibrinated blood and the contents of **one vial of Bordetella Selective Supplement (BSS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|            |    |
|------------|----|
| Cephalexin | 20 |
|------------|----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### BRILLIANT GREEN SOLUTION, STERILE

A sterile brilliant green solution for the supplementation of some media.

##### Description

|              |                             |
|--------------|-----------------------------|
| Code Number: | <b>100 ml: BGS80100-DC</b>  |
|              | <b>30 ml: BGS80030-DC</b>   |
|              | <b>10 ml: BGS80010-DC</b>   |
| Colour:      | <b>Dark green</b>           |
| Appearance:  | <b>Transparent solution</b> |

**Direction:** Various. See the product information of media (e.g. Brilliant Green Agar, human, tetrathionate broths etc.).

##### FORMULA

|                 |                         |
|-----------------|-------------------------|
| Brilliant green | 0,1 %                   |
| Solvent         | Sterile distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### BRUCELLA SELECTIVE SUPPLEMENT

##### FOR 500 ml OF BRUCELLA AGAR

Freeze-dried mixture for the isolation of *Brucella* spp.

##### Description

|              |                                 |
|--------------|---------------------------------|
| Code Number: | <b>4 ml: BAS80004</b>           |
| Colour:      | <b>White</b>                    |
| Appearance:  | <b>Homogeneous lyophilisate</b> |

**Direction:** Suspend **22,5 g of Brucella Agar Base (BAB20500)** in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add aseptically 4 ml of 1:1 mixture of methanol and sterile distilled water to **one vial of Brucella Selective Supplement (BAS80004)** to form suspension. Incubate for 15 minutes at 37 °C. Shake well and add immediately to the agar base together with **35 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) horse serum**. Mix well before pouring.

##### FORMULA [mg/vial]

|                |       |
|----------------|-------|
| Bacitracin     | 250,0 |
| Cycloheximide  | 50,0  |
| Nystatin       | 11,0  |
| Vancomycin     | 10,0  |
| Nalidixic acid | 2,5   |
| Polymyxin B    | 0,4   |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CAMPYLOBACTER GROWTH SUPPLEMENT

##### FOR 500 ml OF CAMPYLOBACTER AGAR

Freeze-dried mixture for the enhanced growth of *Campylobacter* spp.

##### Description

|              |                                 |
|--------------|---------------------------------|
| Code Number: | <b>4 ml: CGS80004</b>           |
| Colour:      | <b>Yellow</b>                   |
| Appearance:  | <b>Homogeneous lyophilisate</b> |

**Direction:** Suspend **19 g of Campylobacter Agar Base (CAA20500)** in 470 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Growth Supplement (CGS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|                       |     |
|-----------------------|-----|
| Sodium pyruvate       | 125 |
| Sodium metabisulphite | 125 |
| Ferrous sulphate      | 125 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, BLASER-WANG

##### FOR 500 ml OF CAMPYLOBACTER AGAR, BLASER-WANG

Freeze-dried mixture for the isolation of *Campylobacter* spp.

##### Description

|              |                                 |
|--------------|---------------------------------|
| Code Number: | <b>4 ml: CBW80004</b>           |
| Colour:      | <b>Yellowish</b>                |
| Appearance:  | <b>Homogeneous lyophilisate</b> |

**Direction:** Suspend **19 g of Campylobacter Agar Base (CAA20500)** in 465 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Growth Supplement (CGS80004)** reconstituted with 4 ml of sterile distilled water. Dissolve the contents of **one vial of Campylobacter Selective Supplement, Blaser-Wang (CBW80004)** with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

##### FORMULA [mg/vial]

|                |     |
|----------------|-----|
| Cefalotin      | 7,5 |
| Vancomycin     | 5,0 |
| Trimethoprim   | 2,5 |
| Amphotericin B | 1,0 |
| Polymyxin B    | 0,2 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, BOLTON

##### FOR 500 ml OF BOLTON BROTH

Freeze-dried mixture for the selective enrichment of *Campylobacter* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CBS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **14 g of Bolton Broth Base (BOB20500)** in 470 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Selective Supplement, Bolton (CBS80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

##### FORMULA [mg/vial]

|               |    |
|---------------|----|
| Cycloheximide | 25 |
| Cefoperazone  | 10 |
| Trimethoprim  | 10 |
| Vancomycin    | 10 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, KARMALI

##### FOR 500 ml OF CAMPYLOBACTER AGAR, KARMALI

Freeze-dried mixture for the isolation of *Campylobacter* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CPK80004           |
| Colour:      | Yellowish                |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **23 g of Campylobacter Agar Base, Karmali (CAK20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Campylobacter Selective Supplement, Karmali (CPK80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|                 |    |
|-----------------|----|
| Cycloheximide   | 50 |
| Sodium pyruvate | 50 |
| Cefoperazone    | 16 |
| Vancomycin      | 10 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, CCDA

##### FOR 500 ml OF CAMPYLOBACTER BLOOD-FREE (CCDA) AGAR

Freeze-dried mixture for the isolation of *Campylobacter* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CCS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **24 g of Campylobacter Blood-Free (CCDA) Agar Base (CCA20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Campylobacter Selective Supplement, CCDA (CCS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|                |    |
|----------------|----|
| Cefoperazone   | 16 |
| Amphotericin B | 5  |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, PRESTON

##### FOR 500 ml OF CAMPYLOBACTER AGAR, PRESTON

Freeze-dried mixture for the isolation of *Campylobacter* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CPS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **19 g of Campylobacter Agar Base (CAA20500)** in 465 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Growth Supplement (CGS80004)** reconstituted with 4 ml of sterile distilled water. Dissolve the contents of **one vial of Campylobacter Selective Supplement, Preston (CPS80004)** with 4 ml of 1:1 mixture of acetone and sterile distilled water and add aseptically to the above. Mix well before pouring.

##### FORMULA [mg/vial]

|               |      |
|---------------|------|
| Cycloheximide | 50,0 |
| Rifampicin    | 5,0  |
| Trimethoprim  | 5,0  |
| Polymyxin B   | 0,4  |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, SKIRROW

##### FOR 500 ml OF CAMPYLOBACTER AGAR, SKIRROW

Freeze-dried mixture for the isolation of *Campylobacter* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **19 g of Campylobacter Agar Base (CAA20500)** in 465 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **25 ml of sterile lysed horse blood** and the contents of **one vial of Campylobacter Growth Supplement (CGS80004)** reconstituted with 4 ml of sterile distilled water. Dissolve the contents of **one vial of Campylobacter Selective Supplement, Skirrow (CSS80004)** with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

#### FORMULA [mg/vial]

|              |     |
|--------------|-----|
| Vancomycin   | 5,0 |
| Trimethoprim | 2,5 |
| Polymyxin B  | 0,2 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CLOSTRIDIUM SELECTIVE SUPPLEMENT

##### FOR 500 ml OF CLOSTRIDIUM DIFFICILE AGAR

Freeze-dried mixture for the isolation of *Clostridium difficile*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CDS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction for blood agar:** Suspend **34,5 g of Clostridium Difficile Agar Base (CDA20500)** in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **35 ml of sterile defibrinated blood** and the contents of **one vial of Clostridium Selective Supplement (CDS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for blood-free agar:** Suspend **34,5 g of Clostridium Difficile (CCFA) Agar Base (CCF20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Clostridium Selective Supplement (CDS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

Because of the sensitivity of some *Clostridium difficile* strains, the amount of cycloserine and cefoxitin is reduced. If you want to compensate the decreased selectivity, treat the specimen with alcohol before inoculation.

#### FORMULA [mg/vial]

|               |     |
|---------------|-----|
| D-Cycloserine | 125 |
| Cefoxitin     | 4   |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### CEFIXIME TELLURITE SELECTIVE SUPPLEMENT

##### FOR 500 ml OF MACCONKEY AGAR, SORBITOL

Freeze-dried mixture for the isolation of *Escherichia coli* O157.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CTS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **26 g of MacConkey Agar Base, Sorbitol (MCS20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Cefixime Tellurite Supplement (CTS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|                     |       |
|---------------------|-------|
| Potassium tellurite | 1,250 |
| Cefixime            | 0,025 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### DIASALM-MSRV MAGNESIUM CHLORIDE SOLUTION

##### FOR 12,5 LITRE OF DIASALM MEDIUM BASE FOR 12,5 LITRE OF RAPPAPORT-VASSILIADIS (MSRV) MEDIUM BASE

A magnesium chloride solution for the preparation of DIASALM and Rappaport-Vassiliadis (MSRV) Medium.

#### Description

|              |                      |
|--------------|----------------------|
| Code Number: | 500 ml: DSM80500     |
| Colour:      | Water clear          |
| Appearance:  | Transparent solution |

**Direction for DIASALM Medium:** Fill up **20 ml of DIASALM-MSRV Magnesium Chloride Solution (DSM80500)** to 500 ml with distilled water. Suspend **20 g of DIASALM Medium Base (DIM20500)** and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Novobiocin (5 mg) Supplement (DSN80004-05)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Rappaport-Vassiliadis (MSRV) Medium:** Fill up **20 ml of DIASALM-MSRV Magnesium Chloride Solution (DSM80500)** to 500 ml with distilled water. Suspend **10,5 g of Rappaport-Vassiliadis (MSRV) Medium Base (MSR20500)** and heat with frequent agitation until the medium boils well. Cool to 50 °C and add aseptically the contents of **one vial of Novobiocin (10 mg) Supplement (DSN80004-10)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### III. SUPPLEMENTS

#### Warning!

These media are heat sensitive.  
No further sterilisation is necessary or desirable.

#### FORMULA

|  |                 |
|--|-----------------|
| Magnesium chloride x 6H <sub>2</sub> O | 518 g/l         |
| Solvent                                | Distilled water |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### DTM SELECTIVE SUPPLEMENT

#### FOR 500 ml OF DTM AGAR

Freeze-dried mixture for the isolation of dermatophytes.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: DTS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend **20 g of DTM Agar Base (DTM20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of DTM Selective Supplement (DTS80004)**, reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|                   |     |
|-------------------|-----|
| Cycloheximide     | 250 |
| Chlortetracycline | 50  |
| Gentamicin        | 50  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### ENDO BASIC FUCHSIN SOLUTION, DEV

#### FOR 500 g OF ENDO AGAR BASE, DEV

A basic fuchsin solution for the preparation of Endo Agar, DEV.

#### Description

|              |                 |
|--------------|-----------------|
| Code Number: | 45 ml: FBS80045 |
| Colour:      | Dark magenta    |
| Appearance:  | Dark solution   |

**Direction:** Suspend **58 g of Endo Agar Base, DEV (EDE20500)** in one litre of distilled water. Add **5 ml of Endo Basic Fuchsin Solution, DEV (FBS80045)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring.

#### FORMULA

|               |  |
|---------------|--|
| Basic fuchsin | 10 %                                   |
| Solvent       | Mixture of ethanol and distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### ENDO BASIC FUCHSIN SOLUTION

#### FOR 500 g OF ENDO OR ENDO LES AGAR BASE FOR 250 g OF ENDO M BROTH BASE

A basic fuchsin solution for the preparation of endo media.

#### Description

|              |                 |
|--------------|-----------------|
| Code Number: | 60 ml: FBS80060 |
| Colour:      | Deep magenta    |
| Appearance:  | Dark solution   |

**Direction of Endo and Endo LES agar:** Suspend **42 g of Endo Agar Base (END20500)** or **50 g of Endo LES Agar Base (ELA20500)** in one litre of distilled water. Add **5 ml of Endo Basic Fuchsin Solution (FBS80060)**. Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring.

**Direction of Endo M Broth:** Suspend **48 g of Endo M Broth Base (ENB20500)** in one litre of distilled water. Add **10 ml of Endo Basic Fuchsin Solution (FBS80060)**. Mix well and heat with frequent agitation until the medium boils well. Cool and dispense aseptically into final containers.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### FORMULA

|               |  |
|---------------|--|
| Basic fuchsin | 10 %                                   |
| Solvent       | Mixture of ethanol and distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### FERRIC AMMONIUM CITRATE SOLUTION, STERILE

#### FOR PREPARATION OF 10 OR 30 LITRE OF MEDIA

A ferric ammonium citrate solution for the differentiation of *Clostridium* spp.

#### Description

|              |                                  |
|--------------|----------------------------------|
| Code Number: | 10 ml: FAC80010, 30 ml: FAC80030 |
| Colour:      | Yellow                           |
| Appearance:  | Transparent solution             |

**Direction:** Prepare 500 ml of sterile medium base from one of the dehydrated medium bases for the detection of *Clostridium* spp. (e.g. RCM-DRCM Medium Base, Lactose Sulphite Broth Base etc.) according to the direction of the given medium. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030)** and **10 drops (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030)**. Mix well before pouring.

### III. SUPPLEMENTS

#### FORMULA

|                         |                         |
|-------------------------|-------------------------|
| Ferric ammonium citrate | 60 %                    |
| Solvent                 | Sterile distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GARDNERELLA SELECTIVE SUPPLEMENT

FOR 500 ml OF GARDNERELLA AGAR

Freeze-dried mixture for the isolation of *Gardnerella vaginalis*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: GAS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 42 g of Columbia Blood Agar Base (COL20500) in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile defibrinated sheep blood. Mix well. Dissolve the contents of one vial of Gardnerella Selective Supplement (GAS80004) with 4 ml of sterile distilled water and add aseptically to the above at 50 °C. Mix well before pouring.

#### FORMULA [mg/vial]

|                |    |
|----------------|----|
| Nalidixic acid | 15 |
| Gentamicin     | 2  |
| Amphotericin B | 1  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GC SELECTIVE SUPPLEMENT, VCN

FOR 500 ml OF SELECTIVE THAYER-MARTIN AGAR

Freeze-dried mixture for the isolation of pathogenic *Neisseria* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: VCN80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 19,5 g of GC Agar Base (GCA20500) in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 35 ml of sterile defibrinated blood and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of one vial of Growth Factor Mixture Hydration Fluid with 5 ml of sterile distilled water and add aseptically to the Growth Factor Mixture (GFM80005). Mix well and add aseptically to the medium. Dissolve the contents of one vial of GC Selective Supplement, VCN (VCN80004) with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

#### FORMULA [mg/vial]

|            |      |
|------------|------|
| Colistin   | 3,75 |
| Vancomycin | 1,50 |
| Nystatin   | 1,50 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GC SELECTIVE SUPPLEMENT, VCNT

FOR 500 ml OF SELECTIVE THAYER-MARTIN AGAR

Freeze-dried mixture for the isolation of pathogenic *Neisseria* spp. This supplement prevents the swarming of *Proteus* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: VCT80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 19,5 g of GC Agar Base (GCA20500) in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 35 ml of sterile defibrinated blood and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of one vial of Growth Factor Mixture Hydration Fluid with 5 ml of sterile distilled water and add aseptically to the Growth Factor Mixture (GFM80005). Mix well and add aseptically to the medium. Dissolve the contents of one vial of GC Selective Supplement, VCNT (VCT80004) with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

#### FORMULA [mg/vial]

|              |      |
|--------------|------|
| Colistin     | 3,75 |
| Trimethoprim | 2,50 |
| Vancomycin   | 1,50 |
| Nystatin     | 1,50 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GLYCEROL SUPPLEMENT

Glycerol (1,2,3-Propanetriol) for preparation of some media.

#### Description

|              |                                    |
|--------------|------------------------------------|
| Code Number: | 100 ml: GLC80100, 500 ml: GLC80500 |
| Colour:      | Water clear                        |
| Appearance:  | Transparent                        |

**Direction:** Various. See the product information of the relevant media bases (e.g. Cetrimide agars, Low-enstein-Jensen, DG 18, etc.).

#### FORMULA

|                                  |                   |
|----------------------------------|-------------------|
| Glycerol (bacteriological grade) | GLC80100 - 100 ml |
| Glycerol (bacteriological grade) | GLC80500 - 500 ml |

**Storage conditions:** Protected from light, at room temperature.





### III. SUPPLEMENTS

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GROWTH FACTOR MIXTURE WITH HYDRATION FLUID

##### FOR 500 ml OF HAEMOPHILUS OR CHOCOLATE OR THAYER-MARTIN AGAR

Freeze-dried mixture of essential growth factors for the enhanced growth of fastidious micro-organisms.

#### Description

|              |  |
|--------------|--|
| Code Number: | 5 ml: GFM80005 (1 vial GFM + 1 vial hydration fluid) |
| Colour:      | White  |
| Appearance:  | Homogeneous lyophilisate                             |

**Direction:** Suspend 26 g of Charcoal Agar Base (CHA20500) for Haemophilus Agar or 18 g of Chocolate Agar Base (CHO20500) for Chocolate Agar or 19,5 g of GC Agar Base (GCA20500) for Thayer-Martin Agar in 460 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 35 ml of sterile defibrinated blood and "chocolate" by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of one vial of Growth Factor Mixture Hydration Fluid with 5 ml of sterile distilled water and add aseptically to the Growth Factor Mixture (GFM80005). Mix well and add aseptically to the medium. Mix well before pouring.

#### FORMULA [mg/vial]

|                     |         |
|---------------------|---------|
| Glucose             | 1000,00 |
| L-Cysteine          | 259,00  |
| L-Glutamine         | 100,00  |
| L-Cystine           | 11,00   |
| Adenine             | 10,00   |
| NAD                 | 2,50    |
| Coccarboxylase      | 1,00    |
| Guanine             | 0,30    |
| Ferric nitrate      | 0,20    |
| p-Aminobenzoic acid | 0,13    |
| Thiamine            | 0,03    |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### GSP SELECTIVE SUPPLEMENT

##### FOR 500 ml OF GSP AGAR

Freeze-dried mixture for the detection and differentiation of *Pseudomonas* and *Aeromonas* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: GSU80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 23 g of GSP Agar Base (GSP20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool quickly to 50 °C and add aseptically the contents of one vial of GSP Selective Supplement (GSU80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### FORMULA [mg/vial]

|            |    |
|------------|----|
| Penicillin | 70 |
|------------|----|

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### HAEMOPHILUS SUPPLEMENT

##### FOR 500 ml OF HAEMOPHILUS TEST AGAR

Freeze-dried mixture for the isolation of *Haemophilus influenzae*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: HTS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 21,5 g of Haemophilus Test Agar Base (HTM20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Haemophilus Supplement (HTS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|   |     |
|---|-----|
| Nicotinamide adenine dinucleotide (NAD) | 7,5 |
| Hemin                                   | 7,5 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### K AGAR MALIC ACID SOLUTION

##### FOR 500 ml OF K AGAR

A malic acid solution for the preparation of K Agar.

#### Description

|              |                |
|--------------|----------------|
| Code Number: | 5 ml: KMS80005 |
| Colour:      | Water clear    |
| Appearance:  | Transparent    |

**Direction:** Suspend 12 g of K Agar Base (KSA20500) in 500 ml of distilled water. Add 0,5 ml of TWEEN 80 Supplement (TWS80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly to 50 °C and add aseptically one vial of K Agar Malic Acid Solution (KMS80005). Mix well before pouring.

### III. SUPPLEMENTS

#### Warning!

Once acidified with malic acid, the medium should not be reheated.

#### FORMULA

|            |                 |
|------------|-----------------|
| Malic acid | 25 %            |
| Solvent    | Distilled water |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### LACTIC ACID SOLUTION

Lactic acid solution for pH adjustment of some media.

#### Description

|              |                         |
|--------------|-------------------------|
| Code Number: | <b>100 ml: LAS80100</b> |
| Colour:      | <b>Water clear</b>      |
| Appearance:  | <b>Transparent</b>      |

**Direction:** Various. See the product information of the relevant media bases (e.g. Czapek-Dox Agar, Malt Extract Media, Tomato Juice Agar, Potato Dextrose Agar etc.).

#### FORMULA

|             |                 |
|-------------|-----------------|
| Lactic acid | 10 %            |
| Solvent     | Distilled water |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### LEGIONELLA GROWTH FACTOR MIXTURE WITH CYSTEINE

##### FOR 100 ml OR 500 ml LEGIONELLA BCYE AGAR WITH CYSTEINE

Powdered mixture of essential growth factors for the isolation of *Legionella* spp.

#### Description

|              |  |
|--------------|--|
| Code Number: | <b>for 100 ml of BCYE Agar with Cysteine: LGF80005-01</b><br><b>for 500 ml of BCYE Agar with Cysteine: LGF80005-02</b> |
| Colour:      | <b>White</b>   |
| Appearance:  | <b>Homogeneous sterile powder</b>  |

**Direction for 100 ml agar:** Suspend **2,5 g Legionella (CYE) Agar Base (CYE20500)** in 95 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)**. Shake well and add to the medium base. Mix well before pouring.

**Direction for 500 ml agar:** Suspend **12,5 g Legionella (CYE) Agar Base (CYE20500)** in 490 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)**. Shake well and add to the medium base. Repeat the wash-out with 5 ml sterile distilled wa-ter one more time. Mix well before pouring.

#### FORMULA [g/l]

|                      |       |
|----------------------|-------|
| ACES buffer          | 10,00 |
| α-Ketoglutarate      | 1,00  |
| L-Cysteine           | 0,40  |
| Ferric pyrophosphate | 0,25  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### LEGIONELLA GROWTH FACTOR MIXTURE WITHOUT CYSTEINE

##### FOR 100 ml OR 500 ml LEGIONELLA BCYE AGAR WITHOUT CYSTEINE

Powdered mixture of essential growth factors without cysteine for the isolation of *Legionella* spp.

#### Description

|              |  |
|--------------|--|
| Code Number: | <b>for 100 ml of BCYE Agar without Cysteine: LWC80005-01</b><br><b>for 500 ml of BCYE Agar without Cysteine: LWC80005-02</b> |
| Colour:      | <b>White</b>   |
| Appearance:  | <b>Homogeneous sterile powder</b>  |

**Direction for 100 ml agar:** Suspend **2,5 g Legionella (CYE) Agar Base (CYE20500)** in 95 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement without Cysteine (LWC80005-01)**. Shake well and add to the medium base. Mix well before pouring.

**Direction for 500 ml agar:** Suspend **12,5 g Legionella (CYE) Agar Base (CYE20500)** in 490 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Add 5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement without Cysteine (LWC80005-02)**. Shake well and add to the medium base. Repeat the wash-out with 5 ml sterile distilled water one more time. Mix well before pouring.

#### FORMULA [g/l]

|                      |       |
|----------------------|-------|
| ACES buffer          | 10,00 |
| α-Ketoglutarate      | 1,00  |
| Ferric pyrophosphate | 0,25  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### LEGIONELLA SELECTIVE SUPPLEMENT, BMPA

##### FOR 100 ml OR 500 ml LEGIONELLA BCYE AGAR, BMPA

A powdered mixture for the isolation of *Legionella* spp.

#### Description

|              |  |
|--------------|--|
| Code Number: | <b>for 100 ml of BCYE Agar, BMPA: BMP80005-01</b><br><b>for 500 ml of BCYE Agar, BMPA: BMP80005-02</b> |
| Colour:      | <b>White</b>   |
| Appearance:  | <b>Homogeneous sterile powder</b>  |

### III. SUPPLEMENTS

**Direction for 100 ml agar:** Suspend 2,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 90 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)** and **one vial of Legionella Selective Supplement, BMPA (BMP80005-01)**. Shake well and add both of them to the medium base. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 12,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 480 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)** and **one vial of Legionella Selective Supplement, BMPA (BMP80005-02)**. Shake well and add both of them to the medium base. Repeat the wash-out with 5–5 ml sterile distilled water one more time. Mix well before pouring.

#### FORMULA [mg/l]

|             |    |
|-------------|----|
| Anisomycin  | 80 |
| Polymyxin B | 10 |
| Cefamandole | 4  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LEGIONELLA SELECTIVE SUPPLEMENT, GVPC

FOR 100 ml OR 500 ml LEGIONELLA BCYE AGAR, GVPC

A powdered mixture for the isolation of *Legionella* spp.

#### Description

Code Number: **for 100 ml of BCYE Agar, GVPC: GVP80005-01**  
**for 500 ml of BCYE Agar, GVPC: GVP80005-02**

Colour: **White**  
Appearance: **Homogeneous sterile powder**

**Direction for 100 ml agar:** Suspend 2,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 90 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)** and **one vial of Legionella Selective Supplement, GVPC (GVP80005-01)**. Shake well and add both of them to the medium base. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 12,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 480 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)** and **one vial of Legionella Selective Supplement, GVPC (GVP80005-02)**. Shake well and add both of them to the medium base. Repeat the wash-out with 5–5 ml sterile distilled water one more time. Mix well before pouring.

#### FORMULA [mg/l]

|               |      |
|---------------|------|
| Glycine       | 3000 |
| Cycloheximide | 80   |
| Polymyxin B   | 10   |
| Vancomycin    | 1    |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LEGIONELLA SELECTIVE SUPPLEMENT, MWY

FOR 100 ml OR 500 ml LEGIONELLA BCYE AGAR, MWY

A powdered mixture for the isolation of *Legionella* spp.

#### Description

Code Number: **for 100 ml of BCYE Agar, MWY: MWY80005-01**  
**for 500 ml of BCYE Agar, MWY: MWY80005-02**

Colour: **White**  
Appearance: **Homogeneous sterile powder**

**Direction for 100 ml agar:** Suspend 2,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 90 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01)** and **one vial of Legionella Selective Supplement, MWY (MWY80005-01)**. Shake well and add both of them to the medium base. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 12,5 g of **Legionella (CYE) Agar Base (CYE20500)** in 480 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C. Add 5–5 ml sterile distilled water to **one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02)** and **one vial of Legionella Selective Supplement, MWY (MWY80005-02)**. Shake well and add both of them to the medium base. Repeat the wash-out with 5–5 ml sterile distilled water one more time. Mix well before pouring.

#### FORMULA [mg/l]

|                    |      |
|--------------------|------|
| Glycine            | 3000 |
| Anisomycin         | 80   |
| Polymyxin B        | 8    |
| Vancomycin         | 1    |
| Bromothymol blue   | 10   |
| Bromocresol purple | 10   |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, FRASER

FOR 500 ml OF FRASER BROTH

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

Code Number: **4 ml: LSF80004**

Colour: **Brownish yellow**  
Appearance: **Homogeneous lyophilisate**

### III. SUPPLEMENTS

**Direction:** Suspend 27,5 g of **Listeria Enrichment Broth Base, UVM-Fraser (LEF20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Fraser (LSF80004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well. Dispense aseptically into sterile final containers.

#### FORMULA [mg/vial]

|                         |       |
|-------------------------|-------|
| Ferric ammonium citrate | 250,0 |
| Acriflavine             | 12,5  |
| Nalidixic acid          | 10,0  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, HALF FRASER

FOR 500 ml OF HALF FRASER BROTH

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: LSH80004           |
| Colour:      | Brownish yellow          |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 27,5 g of **Listeria Enrichment Broth Base, UVM-Fraser (LEF20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Half Fraser (LSH80004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well. Dispense aseptically into sterile final containers.

#### FORMULA [mg/vial]

|                         |        |
|-------------------------|--------|
| Ferric ammonium citrate | 250,00 |
| Acriflavine             | 6,25   |
| Nalidixic acid          | 5,00   |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, OXFORD

FOR 500 ml OF LISTERIA SELECTIVE AGAR, OXFORD

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: LS080004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 29,5 g of **Listeria Selective Agar Base, Oxford (LA020500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Oxford (LS080004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|               |       |
|---------------|-------|
| Cycloheximide | 200,0 |
| Colistin      | 10,0  |
| Fosfomycin    | 5,0   |
| Acriflavine   | 2,5   |
| Cefotetan     | 1,0   |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, PALCAM

FOR 500 ml OF LISTERIA SELECTIVE AGAR, PALCAM

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: LSP80004           |
| Colour:      | Yellowish                |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 36 g of **Listeria Selective Agar Base, Palcam (LAP20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, Palcam (LSP80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|             |      |
|-------------|------|
| Ceftazidime | 10,0 |
| Polymyxin B | 5,0  |
| Acriflavine | 2,5  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, UVM I

FOR 500 ml OF UVM I BROTH

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: LU180004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

### III. SUPPLEMENTS

**Direction:** Suspend 27,5 g of **Listeria Enrichment Broth Base, UVM-Fraser (LEF20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, UVM I (LU180004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well. Dispense aseptically into sterile final containers.

#### FORMULA [mg/vial]

|                |    |
|----------------|----|
| Nalidixic acid | 10 |
| Acriflavine    | 6  |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### LISTERIA SELECTIVE SUPPLEMENT, UVM II

#### FOR 500 ml OF UVM II BROTH

Freeze-dried mixture for the isolation of *Listeria monocytogenes*.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: LU280004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 27,5 g of **Listeria Enrichment Broth Base, UVM-Fraser (LEF20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Listeria Selective Supplement, UVM II (LU280004)** reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well. Dispense aseptically into sterile final containers.

#### FORMULA [mg/vial]

|                |      |
|----------------|------|
| Nalidixic acid | 12,5 |
| Acriflavine    | 10,0 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### MALACHITE GREEN SOLUTION, STERILE

#### FOR THE PREPARATION OF 10 OR 30 LITRE OF MEDIUM

Malachite green solution for the preparation of Malachite Green Broth.

#### Description

|              |                                  |
|--------------|----------------------------------|
| Code Number: | 10 ml: MS080010, 30 ml: MS080030 |
| Colour:      | Green                            |
| Appearance:  | Transparent solution             |

**Direction:** Suspend 4,2 g **Malachite Green Broth Base (MIB20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of Malachite Green Solution, Sterile (MS080030)**. Mix well and dispense aseptically into sterile final containers.

#### FORMULA

|                 |                         |
|-----------------|-------------------------|
| Malachite Green | 1 %                     |
| Solvent         | Sterile distilled water |

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### M-CP CHROMOGENIC SUPPLEMENT

#### FOR 100 ml OR 500 ml OF M-CP AGAR

Freeze-dried mixture for the enumeration of *Clostridium perfringens*.

#### Description

|              |  |
|--------------|--|
| Code Number: | for 100 ml of M-CP Agar: MCC80004-01<br>for 500 ml of M-CP Agar: MCC80004-02 |
| Colour:      | White  |
| Appearance:  | Homogeneous lyophilisate   |

**Direction for 100 ml agar:** Suspend 7,1 g of **ChromoBio® M-CP Base (MCP20500)** in 100 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-01)** and **one vial of M-CP Selective Supplement (MPS80004-01)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 35,5 g of **ChromoBio® M-CP Base (MCP20500)** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-02)** and **one vial of M-CP Selective Supplement (MPS80004-02)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### FORMULA [mg/500 ml medium]

|                             |     |
|-----------------------------|-----|
| Phenolphthalein diphosphate | 100 |
|-----------------------------|-----|

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### M-CP SELECTIVE SUPPLEMENT

#### FOR 100 ml OR 500 ml OF M-CP AGAR

Freeze-dried mixture for the enumeration of *Clostridium perfringens*.

#### Description

|              |  |
|--------------|--|
| Code Number: | for 100 ml of M-CP Agar: MPS80004-01<br>for 500 ml of M-CP Agar: MPS80004-02 |
| Colour:      | White  |
| Appearance:  | Homogeneous lyophilisate   |

### III. SUPPLEMENTS

**Direction for 100 ml agar:** Suspend 7,1 g of ChromoBio® M-CP Base (MCP20500) in 100 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-01)** and **one vial of M-CP Selective Supplement (MPS80004-01)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for 500 ml agar:** Suspend 35,5 g of ChromoBio® M-CP Base (MCP20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of M-CP Chromogenic Supplement (MCC80004-02)** and **one vial of M-CP Selective Supplement (MPS80004-02)** both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Warning!**

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

**FORMULA [mg/500 ml medium]**

|                    |     |
|--------------------|-----|
| D-Cycloserine      | 400 |
| Iron(III) chloride | 90  |
| Polymyxin B        | 25  |

**Storage conditions:** Protected from light, at 2–8 °C.

**Warning!**

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### MRS SUPPLEMENT

##### FOR 10 LITRE OF MRS AGAR OR BROTH

A solution containing TWEEN 80 and sodium acetate for the preparation of MRS media.

**Description**

|              |                   |
|--------------|-------------------|
| Code Number: | 100 ml: MRC80100  |
| Colour:      | Yellowish         |
| Appearance:  | Instable emulsion |

**Direction of MRS Agar:** Suspend 63 g of MRS Agar Base (MRA20500) in one litre of distilled water. Add 10 ml of MRS Supplement (MRC80100). Mix well and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

**Direction of MRS Broth:** Suspend 50 g of MRS Broth Base (MRB20500) in one litre of distilled water. Add 10 ml of MRS Supplement (MRC80100). Mix well and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

**Warning!**

To ensure the homogeneity shake well the supplement before use.

**FORMULA**

|                |                 |
|----------------|-----------------|
| Sodium acetate | 30 %            |
| TWEEN 80       | 10 %            |
| Solvent        | Distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

**Warning!**

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### MRSA SELECTIVE SUPPLEMENT

##### FOR 500 ml OF MRSA SCREEN AGAR

Freeze-dried mixture for the detection of MRSA.

**Description**

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: MSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 39 g of MRSA Screen Agar Base (MRS20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of MRSA Selective Supplement (MSS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**FORMULA [mg/vial]**

|           |   |
|-----------|---|
| Oxacillin | 3 |
|-----------|---|

**Storage conditions:** Protected from light, at 2–8 °C.

**Warning!**

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### MUG SUPPLEMENT

##### FOR THE PREPARATION OF 500 ml OF FLUORESCENT MEDIA

MUG (4-methylumbelliferyl-beta-D-glucuronide) for the detection of *Escherichia coli* by a fluorogenic procedure.

**Description**

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: MGS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Prepare 500 ml of sterile medium base from one of the dehydrated medium bases for the detection of *Escherichia coli* (e.g. MacConkey, CLED, VRB, BBB, EC, LSB etc.) according to the direction of the given medium. Cool to 50 °C and add aseptically the contents of **one vial of MUG Supplement (MGS80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**FORMULA [mg/vial]**

|     |    |
|-----|----|
| MUG | 50 |
|-----|----|

**Storage conditions:** Protected from light, at 2–8 °C.

**Warning!**

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### NOVOBIOCIN SELECTIVE SUPPLEMENT

Freeze-dried mixture for the supplementation of some media.

##### Description

|   |                          |
|---|--------------------------|
| Code Number of Novobiocin ( 5 mg) Supplement: | 4 ml: DSN80004-05        |
| Code Number of Novobiocin (10 mg) Supplement: | 4 ml: DSN80004-10        |
| Code Number of Novobiocin (20 mg) Supplement: | 4 ml: DSN80004-20        |
| Colour:                                       | White                    |
| Appearance:                                   | Homogeneous lyophilisate |

**Direction:** Various. See the product information of relevant media (e.g. DIASALM Medium Base, Rappaport-Vassiliadis (MSRV) Medium Base, Tetrathionate broths etc.).

##### FORMULA

|            |                     |
|------------|---------------------|
| Novobiocin | DSN80004-05 - 5 mg  |
| Novobiocin | DSN80004-10 - 10 mg |
| Novobiocin | DSN80004-20 - 20 mg |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### OGYE SELECTIVE SUPPLEMENT

##### FOR 500 ml OF OGYE AGAR

Freeze-dried mixture for the isolation of yeasts and moulds.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: OGS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 19 g Oxytetracycline Glucose Yeast Extract Agar Base (OGY20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of OGYE Selective Supplement (OGS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|                 |    |
|-----------------|----|
| Oxytetracycline | 50 |
|-----------------|----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### PERFRINGENS SELECTIVE SUPPLEMENT, OPSP, A + B

##### FOR 500 ml OF OPSP AGAR

Freeze-dried mixture for the isolation of *Clostridium perfringens*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 2x4 ml: POS80004         |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 23,5 g of Perfringens (OPSP) Agar Base (POB20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial each of Perfringens Selective Supplements, OPSP, A + B (POS80004) both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

###### Perfringens Selective Supplement, OPSP, A

|              |      |
|--------------|------|
| Polymyxin B  | 0,80 |
| Oleandomycin | 0,25 |

###### Perfringens Selective Supplement, OPSP, B

|              |       |
|--------------|-------|
| Sulfadiazine | 50,00 |
|--------------|-------|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### PERFRINGENS SELECTIVE SUPPLEMENT, SFP

##### FOR 500 ml OF SFP AGAR

Freeze-dried mixture for the isolation of *Clostridium perfringens*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: PFS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction for SFP Agar:** Suspend 22,5 g of Perfringens (TSC + SFP) Agar Base (PAB20500) in 470 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 25 ml of Sterile Egg Yolk Emulsion (EYE80025) and the contents of one vial of Perfringens Selective Supplement, SFP (PFS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Egg Yolk Free SFP Agar:** Suspend 22,5 g of Perfringens (TSC + SFP) Agar Base (PAB20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Perfringens Selective Supplement, SFP (PFS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|             |     |
|-------------|-----|
| Kanamycin   | 6,0 |
| Polymyxin B | 2,5 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### PERFRINGENS SELECTIVE SUPPLEMENT, TSC

FOR 500 ml OF TSC AGAR

Freeze-dried mixture for the isolation of *Clostridium perfringens*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: PSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction for TSC Agar:** Suspend 22,5 g of Perfringens (TSC + SFP) Agar Base (PAB20500) in 470 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 25 ml of Sterile Egg Yolk Emulsion (EYE80025) and the contents of one vial of Perfringens Selective Supplement, TSC (PSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Egg Yolk Free TSC Agar:** Suspend 22,5 g of Perfringens (TSC + SFP) Agar Base (PAB20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Perfringens Selective Supplement, TSC (PSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|               |     |
|---------------|-----|
| D-Cycloserine | 200 |
|---------------|-----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### PHENYLETHANOL SUPPLEMENT

FOR THE PREPARATION OF 12 LITRE OF PEA AGAR

Phenylethanol (2-Phenylethyl alcohol) for the preparation of Phenylethyl Alcohol (PEA) Agar.

##### Description

|              |                      |
|--------------|----------------------|
| Code Number: | 30 ml: PEE80030      |
| Colour:      | Water clear          |
| Appearance:  | Transparent solution |

**Direction:** Suspend 45 g of Phenylethyl Alcohol (PEA) Agar Base (PED20500) in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Add 2,5 ml of Phenylethanol Supplement (PEE80030). Mix well and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile defibrinated sheep blood. Mix well before pouring.

##### FORMULA

|               |       |
|---------------|-------|
| Phenylethanol | 30 ml |
|---------------|-------|

**Storage conditions:** Protected from light, at room temperature.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### POTASSIUM TELLURITE SOLUTION, STERILE

FOR THE PREPARATION OF 3,3 OR 10 LITRE OF G-C BROTH  
FOR THE PREPARATION OF 10 OR 30 LITRE OF V-J AGAR

A potassium tellurite solution for the preparation of the above media.

##### Description

|              |                                  |
|--------------|----------------------------------|
| Code Number: | 10 ml: PTS80010, 30 ml: PTS80030 |
| Colour:      | Water clear                      |
| Appearance:  | Transparent solution             |

**Direction for Giolitti-Cantoni Broth:** Suspend 27 g of Giolitti-Cantoni Broth Base in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 30 drops (1,5 ml) of Potassium Tellurite Solution, Sterile (PTS80030). Mix well and dispense aseptically into sterile final containers.

**Direction for Vogel-Johnson Agar:** Suspend 30 g of Vogel-Johnson Agar Base in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 10 drops (0,5 ml) of Potassium Tellurite Solution, Sterile (PTS80030). Mix well before pouring.

##### FORMULA

|                     |                 |
|---------------------|-----------------|
| Potassium tellurite | 18 %            |
| Solvent             | Distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### PSEUDOMONAS SELECTIVE SUPPLEMENT, CFC

FOR 500 ml OF CETRIMIDE (CN) AGAR No.2

Freeze-dried mixture for the isolation of *Pseudomonas aeruginosa*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: CFC80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 25 g Cetrimide (CN) Agar Base No.2 (CCT20500) in 500 ml of distilled water. Add 5 ml of Glycerol Supplement (GLC80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of one vial of Pseudomonas Selective Supplement, CFC (CFC80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA [mg/vial]

|              |    |
|--------------|----|
| Cefaloridine | 25 |
| Cetrimide    | 5  |
| Fucidin      | 5  |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**



### III. SUPPLEMENTS

#### PSEUDOMONAS SELECTIVE SUPPLEMENT, CN

FOR 500 ml OF CETRIMIDE (CN) AGAR No.2

Freeze-dried mixture for the isolation of *Pseudomonas aeruginosa*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: PCN80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 25 g Cetrimide (CN) Agar Base No.2 (CCT20500) in 500 ml of distilled water. Add 5 ml of Glycerol Supplement (GLC80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of one vial of Pseudomonas Selective Supplement, CN (PCN80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA

|                |       |
|----------------|-------|
| Cetrimide      | 100,0 |
| Nalidixic acid | 7,5   |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

NEW PRODUCT

#### PSEUDOMONAS SELECTIVE SUPPLEMENT, PP

FOR 500 ml OF CETRIMIDE (CN) AGAR No.2

Freeze-dried mixture for the isolation of *Pseudomonas aeruginosa*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: PPP80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 25 g Cetrimide (CN) Agar Base No.2 (CCT20500) in 500 ml of distilled water. Add 5 ml of Glycerol Supplement (GLC80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the content of one vial of Pseudomonas Selective Supplement, PP (PPP80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA

|              |                |
|--------------|----------------|
| Penicillin G | 50.000 IU/vial |
| Pimaricin    | 5 mg/vial      |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### RAPPAPORT-VASSILIADIS MAGNESIUM CHLORIDE SOLUTION

FOR 500 g OF RAPPAPORT-VASSILIADIS BROTH BASE, PH EUR - USP

A magnesium chloride solution for the preparation of Rappaport-Vassiliadis Broth.

##### Description

|              |                      |
|--------------|----------------------|
| Code Number: | 500 ml: RMG81000     |
| Colour:      | Water clear          |
| Appearance:  | Transparent solution |

**Direction:** Fill up 27 ml of Rappaport-Vassiliadis Magnesium Chloride Solution (RMG81000) to one litre with distilled water. Suspend 13,5 g of Rappaport-Vassiliadis Broth Base (RVB20500) and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 115 °C for 15 minutes.

##### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

##### FORMULA

|  |                 |
|--|-----------------|
| Magnesium chloride x 6H <sub>2</sub> O | 953 g/l         |
| Solvent                                | Distilled water |

**Storage conditions:** Protected from light, at room temperature.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### ROSOLIC ACID SUPPLEMENT

FOR 500 ml OF M-FC AGAR OR BROTH

Freeze-dried mixture for the detection and enumeration of faecal coliforms by membrane filtration.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 5 ml: RAS80005           |
| Colour:      | Dark red                 |
| Appearance:  | Homogeneous lyophilisate |

**Direction for agar:** Suspend 26 g of M-FC Agar Base (MFC20500) in 500 ml of distilled water and heat with frequent agitation until the medium becomes transparent (about 90 °C). Add the content of one vial of Rosolic Acid Supplement (RAS80005) reconstituted with 5 ml of sterile distilled water. Continue heating with frequent agitation until the medium boils well. Mix well before pouring.

**Direction for broth:** Suspend 18,5 g of M-FC Broth Base (MFB20500) in 500 ml of distilled water. Add the content of one vial of Rosolic Acid Supplement (RAS80005) reconstituted with 5 ml of sterile distilled water. Mix well and heat with frequent agitation until the medium boils well.

##### Warning!

These media are heat sensitive.

No further sterilisation is necessary or desirable.

##### FORMULA [mg/vial]

|              |    |
|--------------|----|
| Rosolic acid | 50 |
|--------------|----|

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

## III. SUPPLEMENTS

### RPMI MOPS SOLUTION, STERILE

FOR THE PREPARATION OF 500 ml OF RPMI MOPS AGAR

Sterile RPMI MOPS solution for the preparation of RPMI MOPS Agar.

#### Description

|              |                      |
|--------------|----------------------|
| Code Number: | 100 ml: RGS80100     |
| Colour:      | Light orange         |
| Appearance:  | Transparent solution |

**Direction:** Suspend 17,5 g of RPMI MOPS Agar Base (RPM20500) in 400 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C.

Meanwhile heat gently 100 ml of RPMI MOPS Solution, Sterile (RGS80100) to 50 °C. Add the supplement aseptically to the agar base. Mix well before pouring.

#### FORMULA [g/l]

|           |      |
|-----------|------|
| MOPS      | 34,5 |
| RPMI 1640 | 10,5 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

NEW PRODUCT

### SALMONELLA PLUS SELECTIVE SUPPLEMENT

FOR 500 ml OF ChromoBio® SALMONELLA PLUS

Freeze-dried mixture for the isolation of *Salmonella* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: SSP80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 22,5 g of ChromoBio® Salmonella Plus Base (SAP20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Salmonella Plus Selective Supplement (SSP80004) reconstituted with 4 ml sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|                    |     |
|--------------------|-----|
| Cefsulodin         | 6,0 |
| Novobiocin         | 2,5 |
| Specific inhibitor | 1,0 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### SALMONELLA SELECTIVE SUPPLEMENT

FOR 500 ml OF ChromoBio® SALMONELLA

NEW PRODUCT

Freeze-dried mixture for the isolation of *Salmonella* spp.

#### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: SSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 21,5 g of ChromoBio® Salmonella Base (SAL20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Salmonella Selective Supplement (SSS80004) reconstituted with 4 ml sterile distilled water. Mix well before pouring.

#### FORMULA [mg/vial]

|            |     |
|------------|-----|
| Cefsulodin | 6,0 |
| Novobiocin | 2,5 |

**Storage conditions:** Protected from light, at 2–8 °C.

#### Warning!

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**In vitro diagnostic – for professional use only!**

### SELENITE SUPPLEMENT

FOR 500 g OF SELENITE BROTHS

Sodium selenite for preparation of selenite broths.

#### Description

|              |                    |
|--------------|--------------------|
| Code Number: | 110 g: SES80110    |
| Colour:      | White              |
| Appearance:  | Crystalline powder |

**Direction:** Dissolve 4 g of Selenite Supplement (SES80110) in one litre of distilled water. Suspend 19 g of Selenite Broth Base (SEB20500) or Selenite Cystine Broth Base, USP (SCB20500) or Selenite Cystine Mannitol Broth Base (SCM20500) and heat gently to dissolve the medium completely. Dispense into final containers. In case the medium is not getting to use on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly. The presence of a small amount of pinkish or brownish precipitate is not detrimental.

#### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

#### FORMULA

|   |       |
|---|-------|
| Sodium selenite (bacteriological grade) | 110 g |
|---|-------|

**Storage conditions:** Protected from light, at room temperature.

#### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### SHIGELLA SELECTIVE SUPPLEMENT

FOR 500 ml OF SHIGELLA SELECTIVE BROTH

Freeze-dried mixture for the selective enrichment of *Shigella* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: SBS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 15 g Shigella Broth Base (SHB20500) in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Shigella Selective Supplement (SBS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

##### FORMULA [mg/vial]

|            |      |
|------------|------|
| Cefsulodin | 20,0 |
| Novobiocin | 0,3  |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### STAPH/STREP SELECTIVE SUPPLEMENT

FOR 500 ml OF COLUMBIA CNA AGAR  
FOR 500 ml OF TODD-HEWITT SELECTIVE BROTH

Freeze-dried mixture for the isolation of *Staphylococcus* and *Streptococcus* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: SHS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction of Columbia CNA Agar:** Suspend 42 g Columbia Blood Agar Base (COL20500) in 950 ml of distilled water and boil to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of sterile defibrinated sheep blood and the contents of one vial of Staph/Strep Selective Supplement (SHS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction of Todd-Hewitt Selective Broth:** Suspend 18,5 g of Todd-Hewitt Broth (THB20500) in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of one vial of Staph/Strep Selective Supplement (SHS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile final containers.

##### FORMULA [mg/vial]

|                |     |
|----------------|-----|
| Nalidixic acid | 7,5 |
| Colistin       | 5,0 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### SODIUM METABISULPHITE SOLUTION, STERILE

FOR THE PREPARATION OF 10 OR 30 LITRE OF MEDIA

Sodium metabisulphite solution for the differentiation of *Clostridium* spp.

##### Description

|              |                                  |
|--------------|----------------------------------|
| Code Number: | 10 ml: SMS80010, 30 ml: SMS80030 |
| Colour:      | Yellow                           |
| Appearance:  | Transparent solution             |

**Direction:** Prepare 500 ml of sterile medium base from one of the dehydrated medium bases for the detection of *Clostridium* spp. (e.g. RCM-DRCM Medium Base, Lactose Sulphite Medium Base etc.) according to the direction of the given medium. Cool to 50 °C and add aseptically 10 drops (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030) and 10 drops (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030). Mix well before pouring.

##### FORMULA

|                       |                 |
|-----------------------|-----------------|
| Sodium metabisulphite | 60 %            |
| Solvent               | Distilled water |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### STERILE EGG YOLK EMULSION

FOR 500 ml TO 2000 ml OF AGARS

Sterile, stabilised emulsion of egg yolk for the identification of *Clostridium*, *Bacillus* or *Staphylococcus* spp. on the basis of their lipase activity.

##### Description

|              |  |
|--------------|--|
| Code Number: | 25 ml: EYE80025, 50 ml: EYE80050, 100 ml: EYE80100 |
| Colour:      | Yellow   |
| Appearance:  | Homogeneous emulsion                               |

**Direction:** Prepare 475 ml (appropriate powder quantity for 500 ml medium and 475 ml distilled water) of sterile medium base from one of the dehydrated medium bases for the detection of *Clostridium*, *Bacillus* or *Staphylococcus* spp. (e.g. Perfringens Agar Base etc.) according to the direction of the given medium. Cool to 50 °C and add aseptically 25 ml of Sterile Egg Yolk Emulsion (EYE80025). Mix well before pouring.

##### FORMULA

|          |                             |
|----------|-----------------------------|
| Egg yolk | 50 %                        |
| Solvent  | Physiological salt solution |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### STERILE EGG YOLK POLYMYXIN (PEMBA) EMULSION

##### FOR PREPARATION OF 0,5 OR 1 LITRE OF BACILLUS CEREUS (PEMBA) AGAR

Sterile, stabilised emulsion of egg yolk containing polymyxin B for the identification of *Bacillus* spp. on the basis of their lipase activity.

##### Description

|              |                                       |
|--------------|---------------------------------------|
| Code Number: | 25 ml: EYP80025-01 50 ml: EYP80050-01 |
| Colour:      | Yellow                                |
| Appearance:  | Homogeneous emulsion                  |

**Direction:** Suspend 40 g of *Bacillus Cereus* (PEMBA) Agar Base (BCA20500) in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of Sterile Egg Yolk Polymyxin (PEMBA) Emulsion (EYP80050-01). Mix well before pouring.

##### FORMULA OF 50 ml SUPPLEMENT

|             |                             |
|-------------|-----------------------------|
| Egg yolk    | 50 %                        |
| Polymyxin B | 16 mg                       |
| Solvent     | Physiological salt solution |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### STERILE EGG YOLK POLYMYXIN (PREP) EMULSION

##### FOR PREPARATION OF 0,5 OR 1 LITRE OF BACILLUS CEREUS (PREP) AGAR

Sterile, stabilised emulsion of egg yolk containing polymyxin B for the identification of *Bacillus* spp. on the basis of their lipase activity.

##### Description

|              |  |
|--------------|--|
| Code Number: | 50 ml: EYP80050-02 100 ml: EYP80100-02 |
| Colour:      | Yellow                                 |
| Appearance:  | Homogeneous emulsion                   |

**Direction:** Suspend 46 g of *Bacillus Cereus* (PREP) Agar Base (BPR20500) in 900 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 100 ml of Sterile Egg Yolk Polymyxin (PREP) Emulsion (EYP80100-02). Mix well before pouring.

##### FORMULA OF 50 ml SUPPLEMENT

|             |                             |
|-------------|-----------------------------|
| Egg yolk    | 50 %                        |
| Polymyxin B | 8 mg                        |
| Solvent     | Physiological salt solution |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### STERILE EGG YOLK TELLURITE EMULSION

##### FOR 500 ml TO 2000 ml OF BAIRD-PARKER AGAR OR BROTH

Sterile, stabilised emulsion of egg yolk containing potassium tellurite for the isolation and presumptive identification of coagulase positive staphylococci.

##### Description

|              |  |
|--------------|--|
| Code Number: | 25 ml: EYT80025, 50 ml: EYT80050, 100 ml: EYT80100 |
| Colour:      | Yellow   |
| Appearance:  | Homogeneous emulsion                               |

**Direction for agar:** Suspend 60 g of Baird-Parker Agar Base (BPA20500) in 950 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of Sterile Egg Yolk Tellurite Emulsion (EYT80050). Mix well before pouring.

**Direction for broth:** Suspend 43 g of Baird-Parker Broth Base (BBR20500) in 950 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically 50 ml of Sterile Egg Yolk Tellurite Emulsion (EYT80050). Mix well and dis-pense aseptically into sterile final containers.

##### FORMULA OF 50 ml SUPPLEMENT

|                     |                             |
|---------------------|-----------------------------|
| Egg yolk            | 50 %                        |
| Potassium tellurite | 100 mg                      |
| Solvent             | Physiological salt solution |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### SULPHAMANDELATE SELECTIVE SUPPLEMENT

##### FOR 500 ml OF BRILLIANT GREEN AGAR, MODIFIED

Freeze-dried mixture for the isolation of *Salmonella* spp.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: SUS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction:** Suspend 26,5 g of Brilliant Green Agar Base, Modified (BGM20500) in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Cool quickly to 50 °C and add aseptically the contents of one vial of Sulphamandelate Selective Supplement (SUS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.

##### FORMULA [mg/vial]

|                      |     |
|----------------------|-----|
| Sodium sulfacetamide | 500 |
| Sodium mandelate     | 125 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### TETRATHIONATE IODINE-IODIDE SELECTIVE SUPPLEMENT

FOR 500 ml OF TETRATHIONATE BROTHS

Dehydrated mixture for the preparation of tetrathionate broths.

##### Description

|              |                    |
|--------------|--------------------|
| Code Number: | 10 ml: TTS80010    |
| Colour:      | Brown              |
| Appearance:  | Homogeneous powder |

**Direction:** Suspend the appropriate quantity of one of the tetrathionate broth bases in 500 ml of distilled water and heat gently to dissolve the medium completely. Cool to 50 °C and add aseptically the contents of **one vial of Tetrathionate Iodine-Iodide Selective Supplement (TTS80010)** reconstituted with 10 ml of sterile distilled water. If necessary, add the other relevant supplement. Mix well and dispense aseptically into sterile test tubes.

##### Warning!

The medium is heat sensitive.

Do not heat after the addition of the supplement.

It is recommended to use the complete medium on the day of preparation.

##### FORMULA [g/vial]

|                  |     |
|------------------|-----|
| Iodine           | 3,0 |
| Potassium iodide | 2,5 |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### TRIBUTYRIN SUPPLEMENT

FOR 500 g OF TRIBURYRIN AGAR BASE

Tributyryn (1,2,3-Tributyrylglycerol) for preparation of Tributyrin Agar.

##### Description

|              |                  |
|--------------|------------------|
| Code Number: | 250 ml: TRS80250 |
| Colour:      | Water clear      |
| Appearance:  | Transparent      |

**Direction:** Suspend **20 g of Tributyrin Agar Base (TRA20500)** in one litre of distilled water. Add **10 ml of Tributyrin Supplement (TRS80250)** and mix until homogeneous. Heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C with frequent agitation and pour plates immediately to solidify quickly.

##### Warning!

The ready medium must be homogeneous turbid gel!

##### FORMULA

|                                    |        |
|------------------------------------|--------|
| Tributyryn (bacteriological grade) | 250 ml |
|------------------------------------|--------|

**Storage conditions:** Protected from light, at room temperature.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### TRICHOMONAS SELECTIVE SUPPLEMENT

FOR 500 ml OF TRICHOMONAS MEDIA

Freeze-dried mixture for the cultivation of *Trichomonas vaginalis*.

##### Description

|              |                          |
|--------------|--------------------------|
| Code Number: | 4 ml: TSS80004           |
| Colour:      | White                    |
| Appearance:  | Homogeneous lyophilisate |

**Direction for Trichomonas (CPLM) Medium, Modified:** Suspend **17,5 g of Trichomonas (CPLM) Medium Base, Modified (CPL20500)** in 425 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Trichomonas Selective Supplement (TSS80004)** reconstituted with 4 ml of sterile distilled water and **70 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) and pH adjusted (6,0) horse serum**. Mix well and dispense aseptically into sterile test tubes.

**Direction for Trichomonas Medium:** Suspend **18,5 g of Trichomonas Medium Base (TRM20500)** in 455 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Trichomonas Selective Supplement (TSS80004)** reconstituted with 4 ml of sterile distilled water and **40 ml of sterile inactivated (i.e. serum held at 56 °C for 30 minutes) and pH adjusted (6,4) horse serum**. Mix well and dispense aseptically into sterile test tubes.

##### FORMULA [mg/vial]

|              |     |
|--------------|-----|
| Streptomycin | 500 |
| Penicillin   | 80  |

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### TRITON X-100 SUPPLEMENT

FOR 100 OR 500 LITRE OF A-1 BROTH

TRITON X-100 (Octylphenol ethylene oxide condensate) for preparation of A-1 Broth.

##### Description

|              |                                    |
|--------------|------------------------------------|
| Code Number: | 100 ml: TXS80100, 500 ml: TXS80500 |
| Colour:      | Colourless or slightly yellowish   |
| Appearance:  | Transparent                        |

**Direction:** Suspend **31 g of A-1 Broth Base (A1B20500)** in one litre of distilled water. Add **1 ml of Triton X-100 Supplement (TXS80100)**. Mix well and heat gently to dissolve the medium completely. Dispense into test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

##### FORMULA

|                                      |                   |
|--------------------------------------|-------------------|
| TRITON X-100 (bacteriological grade) | TXS80100 - 100 ml |
| TRITON X-100 (bacteriological grade) | TXS80500 - 500 ml |

**Storage conditions:** Protected from light, at room temperature.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

### III. SUPPLEMENTS

#### TTC SOLUTION, STERILE

##### FOR THE PREPARATION OF 10 OR 30 LITRE OF MEDIA

TTC (2,3,5-Triphenyl-2H-tetrazolium chloride) solution for the preparation of some media.

##### Description

Code Number: **10 ml: TTC80010, 30 ml: TTC80030**

Colour: **Water clear**

Appearance: **Transparent solution**

**Direction:** Prepare 500 ml of sterile medium base from one of the dehydrated medium bases for the detection of enterococci or coliforms (e.g. CATC Agar Base, KF Streptococcus Agar Base, Slanetz-Bartley Agar Base, Tergitol 7 Agar Base etc.) according to the direction of the given medium. Cool to 50 °C and add aseptically **10 drops (0,5 ml) of TTC Solution, Sterile (TTC80030)**. Mix well before pouring.

##### FORMULA

TTC 5 %

Solvent Distilled water

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### TWEEN 80 SUPPLEMENT

TWEEN 80 (Polyoxyethylene sorbitan monooleate; Polysorbate 80) for the preparation of some media.

##### Description

Code Number: **100 ml: TWS80100, 500 ml: TWS80500**

Colour: **Colourless or slightly yellowish**

Appearance: **Transparent, weak precipitation may occur**

**Direction:** Various. See the product information of the relevant media bases.

##### FORMULA

TWEEN 80 (bacteriological grade) TWS80100 - 100 ml

TWEEN 80 (bacteriological grade) TWS80500 - 500 ml

**Storage conditions:** Protected from light, at room temperature.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

NEW PRODUCT

#### VANCOMYCIN SUPPLEMENT

Freeze-dried mixture for the supplementation of some media.

##### Description

Code Number of Vancomycin (3 mg) Supplement: **VSS80004-03**

Code Number of Vancomycin (13 mg) Supplement: **VSS80004-13**

Colour: **White**

Appearance: **Homogeneous lyophilisate**

**Direction for Chocolate Agar + Vancomycin:** Suspend **18 g of Chocolate Agar Base** in 455 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically **35 ml of sterile defibrinated blood** and “chocolate” by heating at 80 °C for 10 min. Cool to 50 °C. Dissolve the contents of one vial of **Growth Factor Mixture Hydration Fluid** with 5 ml of sterile distilled water and add aseptically to the **Growth Factor Mixture (GFM80005)**. Mix well and add aseptically to the medium. Dissolve the contents of **one vial of Vancomycin (13 mg) Supplement (VSS80004-13)** with 4 ml of sterile distilled water and add aseptically to the above. Mix well before pouring.

**Direction for Vancomycin Screen Agar:** Suspend **25 g of Brain Heart Infusion Agar** in 500 ml of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Vancomycin (3 mg) Supplement (VSS80004-03)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### FORMULA

Vancomycin VSS80004-03 - 3 mg

Vancomycin VSS80004-13 - 13 mg

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

Use before the expiry date on the label.

**In vitro diagnostic – for professional use only!**

#### YERSINIA (CIN) SELECTIVE SUPPLEMENT

##### FOR 500 ml OF YERSINIA AGAR

##### FOR 500 ml OF YERSINIA BROTH

Freeze-dried mixture for the isolation of *Yersinia enterocolitica*.

##### Description

Code Number: **4 ml: CIN80004**

Colour: **White**

Appearance: **Homogeneous lyophilisate**

**Direction for Yersinia Agar:** Suspend **30 g of Yersinia Agar Base (YAB20500)** in 500 ml of distilled wa-ter and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Yersinia (CIN) Selective Supplement (CIN80004)** reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Direction for Yersinia Broth:** Suspend **16,5 g of Yersinia Broth Base (YBB20500)** in 500 ml of distilled water and heat gently to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add aseptically the contents of **one vial of Yersinia (CIN) Selective Supplement (CIN80004)** reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile test tubes.

##### FORMULA [mg/vial]

Cefsulodin 7,50

Irgasan 2,00

Novobiocin 1,25

**Storage conditions:** Protected from light, at 2–8 °C.

##### Warning!

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**In vitro diagnostic – for professional use only!**



**Distributed by:**

**biolab**  
FOR SPLENDID ISOLATION

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