

biolab

**MANUAL**  
**13<sup>th</sup> edition**

FOR SPLENDID ISOLATION

# 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 ISO 9001:2008 are fulfilled.

Validity: The certificate is valid from **2012.06.12** until **2015.06.11**.  
First certification: 2009.

Budapest, 2012.06.20.

  
TÜV Rheinland InterCert Kft.  
H-1132 Budapest, Váci út 48/a-b  
www.tuv.hu



QMS Cert.Body  
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 23 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**

- 2.1. Culture media according to the pharmacopoeias
- 2.2. Alphabetical list of media



### **SUPPLEMENTS**

Budapest, 2<sup>nd</sup> November, 2013

For further information please contact our Export Department:



# **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, which could hinder optimal development of micro-organisms. In addition, bacteriological agar also possesses other attributes such as transparency, high hysteresis and very reliable reproducibility.

Code Number: **BAA10500, BAA11000**  
 Appearance: **White cream powder**

**Physico-chemical characteristics**

	<b>Standard</b>
Sieve analysis (ASTM) On Mesh 60	Pass
Gel strength (Nikkan) after autoclaving	800 - 950 g/cm <sup>2</sup>
Loss on drying	<12 %
Total ashes	<5 %
pH (1,5% solution) gel after autoclaving	6 - 7.5
Nepheles after autoclaving	<12 NTU
Gelling point	33 - 37 °C
Melting point	85 - 95 °C

**Microbiology**

	<b>Standard</b>
Total aerobe microbial count	<100/g
Viable spores	<10/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygro-scopic product.

**BACTERIOLOGICAL PEPTONE**

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

Code Number: **BAP10500, BAP11000**  
 Appearance: **Fine cream powder easily soluble in water**

**Physico-chemical characteristics**

**Standard**

Solubility in water 2%	Complete
pH (2% solution)	6.5 - 7.5
Loss on drying	≦6.0 %
Total nitrogen TN	12 - 14 %
α-amino nitrogen AN	3.0 - 4.0 %
AN/TNx100	25-28
Residue on ignition	≦17 %
Chloride (NaCl)	≦6 %

**Microbiology**

**Standard**

Total aerobe microbial count	≦10 000/g
Coliforms	≦10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Yeasts and moulds	≦20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygro-scopic product.

**BACTERIOLOGICAL BILE**

Purified ox bile is prepared by purification of raw ox bile in order to remove the substances which can interfere with the application in bacteriology. It is used in culture media because of its inhibitory properties of Gram-positive micro-organisms, enabling the growth of different groups of bac-teria, such as coliforms, salmonellae and enterococci.

Code Number: **BB110100, BB110500**  
 Appearance: **Greenish brown powder easily soluble in water**

**Physico-chemical characteristics**

	<b>Standard</b>
Solubility in water 2%	Complete
pH (2% solution)	5 - 7
Loss on drying	<6 %
Total nitrogen TN	40-50 %
Residue on ignition	≦20 %

**Microbiology**

	<b>Standard</b>
Total aerobe microbial count	≦1 000/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygro-scopic product.

**BILE SALT No.3**

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

Code Number: **BBS10100, BBS10500**  
 Appearance: **White free-flowing powder**

**Physico-chemical characteristics**

**Standard**

Solubility in water 2%	Clear at 20 °C
pH (5% solution)	8,0-9,0
Loss on drying	≦4 %

**Microbiology**

**Standard**

Total aerobe microbial count	≦1 000/g
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**Storage conditions:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## 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: **CAP10500, CAP11000**  
 Appearance: **Fine cream powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (5% solution)	6.5 - 7.5
Loss on drying	≤6.0 %
Total nitrogen TN	12.2 - 13.2 %
α-amino nitrogen AN	3.0 - 4.0 %
AN/TNx100	25 - 31
Residue on ignition	≤17 %
Chloride (NaCl)	≤6 %

### Microbiology

	Standard
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Staphylococcus aureus	Absence/10 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## 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: **MAE10500, MAE11000**  
 Appearance: **Fine cream powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (5% solution)	5 - 6
Loss on drying	≤4.5 %
Total nitrogen	≤7.0 %
Reducing sugars	≈80 %
Residue on ignition	≈3 %

### Microbiology

	Standard
Total aerobic microbial count	≤10 000/g
Escheria coli	Absence/10 g
Salmonella	Absence/25 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## GELATIN PEPTONE

Gelatin peptone is manufactured by pancreatic digestion of pork gelatin. Because of the amino-acid composition of the gelatin, the peptone provide high level of proline and hydroxyproline but does not contain tryptophan.

Gelatin 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: **GEP10500, GEP11000**  
 Appearance: **Fine cream powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (2% solution)	6.5 - 7.5
Loss on drying	≤3.5 %
Total nitrogen TN	14 - 16 %
α-amino nitrogen AN	2.4 - 3.4 %
AN/TNx100	17 - 23
Residue on ignition	≤10 %

### Microbiology

	Standard
Total aerobic microbial count	≤2600cfu/g
Coliforms	≤10/g
Escherichia coli	Absence/10g
Salmonella	Absence/25g
Staphylococcus aureus	Absence/10g
Yeasts and moulds	≤100cfu/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## MEAT EXTRACT

Meat extract is manufactured by a controlled enzymatic hydrolysis of beef.

Use: Source of organic nitrogen and growth factors recommended in media for:

- Analytical microbiology
- Industrial fermentation

Code Number: **MEE10500, MEE11000**  
 Appearance: **Fine beige powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (2% solution)	5.5-6.5
Loss on drying	≤7 %
Total nitrogen TN	≤14.4 %
α-amino nitrogen AN	3.5 - 4.5 %
AN/TNx100	24-31
Residue on ignition	≤18.0 %
Protein	≈90 %

### Microbiology

	Standard
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escheria coli	Absence/10 g
Salmonella	Absence/25 g
Staphylococcus aureus	Absence/10 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.



**MEAT PEPTONE (PEPSIN DIGESTED)**

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 micro-organisms such as *Corynebacterium* and *Clostridium* spp.

Code Number: **MPE10500, MPE11000**  
 Appearance: **Fine beige powder easily soluble in water**

**Physico-chemical characteristics**

	<b>Standard</b>
Solubility in water 2%	Complete
pH (2% solution)	6.0 - 7.5
Loss on drying	≤5 %
Total nitrogen TN	12 - 13 %
α-amino nitrogen AN	3.8 - 4.8 %
AN/TNx100	29 - 40
Residue on ignition	≤15 %

**Microbiology**

	<b>Standard</b>
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

**MYCOLOGICAL PEPTONE**

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

Code Number: **FUP10500, FUP11000**  
 Appearance: **Fine beige powder easily soluble in water**

**Physico-chemical characteristics**

	<b>Standard</b>
Solubility in water 2%	Complete
pH (5% solution)	6.0-7.0
Loss on drying	≤5 %
Total nitrogen TN	10-12.5 %
α-amino nitrogen AN	3.8-5 %
AN/TNx100	30-50
Residue on ignition	≤15 %

**Microbiology**

	<b>Standard</b>
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence – 10/g
Salmonella	Absence – 25/g
Yeasts and moulds	≤20/g

**Storage conditions:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

**PROTEOSE PEPTONE**

Proteose peptone is manufactured by enzymatic hydrolysis of selected fresh meat and animal tissue. 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: **PRP10500, RPR11000**  
 Appearance: **Fine cream powder easily soluble in water**

**Physico-chemical characteristics**

	<b>Standard</b>
Solubility in water 2%	Complete
pH (2% solution)	6 - 7
Loss on drying	≤5 %
Total nitrogen TN	12.1 - 13.2 %
α-amino nitrogen AN	3.5 - 4.5 %
AN/TNx100	29 - 37
Residue on ignition	≤18 %

**Microbiology**

	<b>Standard</b>
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

**SOYA PEPTONE**

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

Code Number: **SOP10500, SOP11000**  
 Appearance: **Fine beige powder easily soluble in water**

**Physico-chemical characteristics**

	<b>Standard</b>
Solubility in water 2%	Complete
pH (5% solution)	6 - 7
Loss on drying	≤5 %
Total nitrogen TN	9.5 - 11.0 %
α-amino nitrogen AN	2.2 - 3.2 %
AN/TNx100	20 - 34
Residue on ignition	≤15 %

**Microbiology**

	<b>Standard</b>
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Staphylococcus aureus	Absence/10 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## TRYPTONE

Tryptone is manufactured by controlled enzymatic (tryptic) hydrolysis of casein.

Use: Source of organic nitrogen recommended in media for:

- Analytical microbiology
- Industrial fermentation

Code Number: **TRP10500, TRP11000**

Appearance: **Fine cream powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (2% solution)	6.5-7.5
Loss on drying	≤5.0 %
Total nitrogen TN	12.1 - 13.1 %
α-amino nitrogen AN	5.5 - 6.5 %
AN/TN×100	42 - 54
Residue on ignition	≤15 %

### Microbiology

	Standard
Total aerobic microbial count	≤10 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Staphylococcus aureus	Absence/10 g
Yeasts and moulds	≤20/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## TRYPTOSE

It is a blend of peptones prepared from animal tissues and protein of animal origin, suitable for the media intended for culture of *Streptococcus* 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: **TRY10500, TRY11000**

Appearance: **Fine cream powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (2% solution)	6.5 - 7.5
Loss on drying	≤5 %
Total nitrogen TN	11.5 - 13.0 %
α-amino nitrogen AN	4 - 5 %
AN/TN×100	31 - 43
Residue on ignition	≤20 %

### Microbiology

	Standard
Total aerobic microbial count	≤10 000/g
Coliforms	Absence/10 g
Salmonella	Absence/10 g
Yeasts and moulds	Absence/0,1 g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## YEAST EXTRACT

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

Code Number: **YEE10500, YEE11000**

Appearance: **Fine pale-yellow powder easily soluble in water**

### Physico-chemical characteristics

	Standard
Solubility in water 2%	Complete
pH (2% solution)	6.4 - 7.4
Loss on drying	≤3.5
Total nitrogen TN	8.0 - 10.5 %
α-amino nitrogen AN	2.5 - 4.0 %
AN/TN×100	24 - 50
Residue on ignition	≤18 %

### Microbiology

	Standard
Total aerobic microbial count	≤5 000/g
Coliforms	≤10/g
Escherichia coli	Absence/10 g
Salmonella	Absence/25 g
Staphylococcus aureus	Absence/10 g
Yeasts and moulds	≤100/g

**Storage:** Keep in cool and dry area. Avoid heat and moisture. Hygroscopic product.

## **II. DEHYDRATED CULTURE MEDIA**



## 2.1. Culture media according to pharmacopoeias

## A. 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 (2.2.).

## B. Culture media for the method of the European Pharmacopoeia

<b>BROTH MEDIUM A (CASEIN SOYA-BEAN DIGEST BROTH)</b>	<b>AGAR MEDIUM L (BRILLIANT GREEN PHENOL RED LACTOSE SUCROSE AGAR)</b>
<b>See:</b> Tryptone Soya Broth, PH EUR - USP	<b>See:</b> Brilliant Green (BPLS) Agar, PH EUR
<b>AGAR MEDIUM B (CASEIN SOYA-BEAN DIGEST AGAR)</b>	<b>AGAR MEDIUM M (TSI AGAR)</b>
<b>See:</b> Tryptone Soya Agar, PH EUR - USP	<b>See:</b> Triple Sugar Iron (TSI) Agar, PH EUR
<b>AGAR MEDIUM C (SABOURAUD GLUCOSE AGAR WITH CHLORAMPHENICOL)</b>	<b>AGAR MEDIUM N (CETRIMIDE AGAR BASE)</b>
<b>See:</b> Sabouraud Chloramphenicol Agar, PH EUR	<b>See:</b> Cetrimide Agar Base, PH EUR - USP
<b>BROTH MEDIUM D (LACTOSE BROTH)</b>	<b>AGAR MEDIUM O (BAIRD-PARKER AGAR BASE)</b>
<b>See:</b> Lactose Broth, PH EUR	<b>See:</b> Baird-Parker Agar Base, PH EUR
<b>BROTH MEDIUM E (ENTEROBACTERIA ENRICHMENT BROTH, MOSSEL)</b>	<b>MEDIUM P (REINFORCED MEDIA FOR CLOSTRIDIA)</b>
<b>See:</b> EE Broth, PH EUR - USP	<b>See:</b> Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP
<b>AGAR MEDIUM F (CRYSTAL VIOLET NEUTRAL RED BILE AGAR WITH GLUCOSE)</b>	<b>AGAR MEDIUM Q (COLUMBIA AGAR)</b>
<b>See:</b> Violet Red Bile Glucose Agar, PH EUR	<b>See:</b> Columbia Agar, PH EUR - USP
<b>BROTH MEDIUM G (MACCONKEY BROTH)</b>	<b>BROTH MEDIUM R (LACTOSE SULPHITE BROTH BASE)</b>
<b>See:</b> MacConkey Broth, PH EUR - USP	<b>See:</b> Lactose Sulphite Broth Base, PH EUR
<b>AGAR MEDIUM H (MACCONKEY AGAR)</b>	<b>AGAR MEDIUM S (R2A AGAR)</b>
<b>See:</b> MacConkey Agar, PH EUR - USP	<b>See:</b> R2A Agar, PH EUR
<b>BROTH MEDIUM I (TETRATHIONATE BILE BRILLIANT GREEN BROTH)</b>	<b>BUFFERED SODIUM CHLORIDE PEPTONE SOLUTION PH 7.0</b>
<b>See:</b> Tetrathionate Broth Base, PH EUR	<b>See:</b> Peptone Water, Buffered, PH EUR - USP
<b>AGAR MEDIUM J (DESOXYCHOLATE CITRATE AGAR)</b>	<b>FLUID THIOGLYCOLLATE MEDIUM FOR STERILITY TESTING</b>
<b>See:</b> Deoxycholate Citrate Agar, PH EUR	<b>See:</b> Thioglycollate Medium, PH EUR
<b>AGAR MEDIUM K (XYLOSE LYSINE DEOXYCHOLATE AGAR)</b>	<b>NEUTRALISING FLUID BASE</b>
<b>See:</b> XLD Agar, PH EUR - USP	<b>See:</b> Neutralising Fluid Base, PH EUR

## II. DEHYDRATED CULTURE MEDIA

### C. Culture media for the method of the United States Pharmacopoeia

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#### CASEIN PEPTONE LECITHIN POLYSORBATE BROTH BASE, USP

See: Casein Peptone Lecithin Polysorbate Broth Base, USP

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#### EOSIN METHYLENE BLUE AGAR, USP

See: Eosin Methylene Blue Agar, USP

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#### KING A AGAR, USP

See: King A Agar Base, USP

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#### KING B AGAR, USP

See: King B Agar Base, USP

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#### SELENITE-CYSTINE BROTH BASE, USP

See: Selenite Cystine Broth Base, USP

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#### TETRATIONATE BROTH BASE, USP

See: Tetratonate Broth Base, USP

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#### VOGEL-JOHNSON AGAR, USP

See: Vogel-Johnson Agar Base, USP

### D. Culture media for the harmonised method

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#### BUFFERED SODIUM CHLORIDE PEPTONE SOLUTION pH 7.0

See: Peptone Water, Buffered, PH EUR - USP

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#### CASEIN SOYA BEAN DIGEST AGAR

See: Tryptone Soya Agar, PH EUR - USP

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#### CASEIN SOYA BEAN DIGEST BROTH

See: Tryptone Soya Broth, PH EUR - USP

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#### CETRIMIDE AGAR

See: Cetrimide Agar Base, PH EUR - USP

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#### COLUMBIA AGAR

See: Columbia Agar, PH EUR - USP

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#### ENTEROBACTERIA ENRICHMENT BROTH, MOSSEL

See: EE Broth, PH EUR - USP

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#### MACCONKEY AGAR

See: MacConkey Agar, PH EUR - USP

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#### MACCONKEY BROTH

See: MacConkey Broth, PH EUR - USP

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#### MANNITOL SALT AGAR

See: Mannitol Salt Agar, PH EUR - USP

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#### POTATO DEXTROSE AGAR

See: Potato Dextrose Agar, PH EUR - USP

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#### RAPPAPORT VASSILIADIS SALMONELLA ENRICHMENT BROTH

See: Rappaport Vassiliadis Broth Base, PH EUR - USP

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#### REINFORCED MEDIUM FOR CLOSTRIDIA

See: Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP

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#### SABOURAUD DEXTROSE AGAR

See: Sabouraud Dextrose (4%) Agar, PH EUR - USP

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#### SABOURAUD DEXTROSE BROTH

See: Sabouraud Dextrose Broth, PH EUR - USP

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#### VIOLET RED BILE GLUCOSE AGAR

See: Violet Red Bile Glucose Agar, PH EUR - USP

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#### XYLOSE, LYSINE, DEOXYCHOLATE AGAR

See: XLD Agar, PH EUR - USP

## 2.2. Alphabetical list of 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 dehydrolysate) the amino acids.

Code Number:	See below
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder

**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 it is necessary.

Dispense aseptically 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).

**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 prepared medium protected

#### 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	5,00
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
Glucose	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	5,00
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

from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Proteus vulgaris*

**References:** Moeller (1955) Acta. Path. Microbiol. Scand. 36: 158.

Falkow (1958) Amer. J. Clin. Path. 29: 598.

Taylor (1961) Appl. Microbiol. 9: 487.

## II. DEHYDRATED CULTURE MEDIA

### A-1 BROTH BASE

A non-selective medium for the detection of coliform micro-organisms.

Code Number:	<b>A1B20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Pseudomonas aeruginosa*

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

### ACETAMIDE BROTH

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

Code Number:	<b>ACB20500, 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 and sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Acetamide	2
Sodium chloride	0,2
Magnesium sulphate	0,2
Sodium molybdate	0,005
Ferrous sulphate	0,0005
Buffers	1

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

**References:** ISO 12780: 2002

### ACETATE DIFFERENTIAL AGAR

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

Code Number:	<b>ADA20500, ADA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,9 (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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Shigella sonnei*

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

### AEROMONAS AGAR BASE

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

Code Number:	<b>AEA20500, AEA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>8,0 (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. 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 in g/l

Peptones	9,00
Bile salt	3,00
Xylose	3,75
Sorbitol	3,00
Lactose	1,50
Inositol	2,50
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



**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Aeromonas hydrophila*, *Pseudomas aeruginosa*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>AIA20500, AIA25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (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 it is necessary to supplement with blood cool to 50 °C and add aseptically 50 ml of sterile defibrinated blood. Mix well before pouring.

**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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Bacteroides fragilis*, *Peptostreptococcus anaerobius*

### ANAEROBE ISOLATION BROTH

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

Code Number:	<b>AIB20500, 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.

**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

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Bacteroides fragilis*, *Peptostreptococcus anaerobius*

## II. DEHYDRATED CULTURE MEDIA

### ANTIBIOTIC ASSAY MEDIA

Media for the microbiological assay of antibiotics according to USP and PH EUR.

Code Number:	(A01 – A39)20500, (A01 – A39)25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder

**Direction:** Suspend the amount indicated below of dehydrated media in one litre of distilled water. Add the supplement, if necessary 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 2

Peptone	6,0
Yeast extract	3,0
Beef extract	1,5
Agar	15,5
26 g/l pH = 6,5 – 6,7	

#### MEDIUM 3

Peptone	5,0
Yeast extract	1,5
Beef extract	1,5
Glucose	1,0
Sodium chloride	3,5
Dipotassium hydrogen phosphate	3,68
Potassium dihydrogen phosphate	1,32
17,5 g/l 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 8

Peptone	6,0
Yeast extract	3,0
Beef extract	1,5
Agar	15,5
26 g/l pH = 5,8 – 6,0	

#### MEDIUM 9

Casein peptone	17,0
Soya 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 10 BASE

Casein peptone	17,0
Soya peptone	3,0
Glucose	2,5
Sodium chloride	5,0
Dipotassium hydrogen phosphate	2,5
Agar	12,0
42 g/l + 10 ml/l TWEEN 80 Supplement (TWS80100) pH = 7,1 – 7,3	

#### 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 12

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 13

Peptone	10
Glucose	20
30 g/l pH = 5,5 – 5,7	

#### 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 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 34 BASE

Peptone	10
Beef extract	10
Sodium chloride	3
23 g/l + 10 ml/l Glycerol Supplement (GLC80100) pH = 6,9 – 7,1	

#### MEDIUM 35 BASE

Peptone	10
Beef extract	10
Sodium chloride	3
Agar	17
40 g/l + 10 ml/l Glycerol Supplement (GLC80100) pH = 6,9 – 7,1	

#### MEDIUM 36

Casein peptone	15
Soya peptone	5
Sodium chloride	5
Agar	15
40 g/l pH = 7,2 – 7,4	

#### MEDIUM 39

Peptone	5,0
Yeast extract	1,5
Beef extract	1,5
Glucose	1,0
Sodium chloride	3,5
Dipotassium hydrogen phosphate	3,68
Potassium dihydrogen phosphate	1,32
17,5 g/l pH = 7,8 – 8,0	

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

**References:** USP XXVI (1995) Chapter 'Biological Tests and Assays'  
PH EUR II. Chapter VIII. 4.

### APT AGAR BASE

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

Code Number:	<b>APT20500, 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 1ml of TWEEN 80 Supplement (TWS80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### 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	0,040
Thiamine HCl	0,001
Buffers	5,000
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**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.

Code Number:	<b>APB20500, 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 dis-solve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

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

### ARGININE BROTH

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

Code Number:	<b>ARB20500, ARB25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,4 (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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

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

### ASPARAGINE BROTH BASE

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

Code Number:	<b>ASB20500, 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 4,5 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 and sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

DL Asparagine	3,0
Magnesium sulphate	0,5
Buffers	1,0

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

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

## II. DEHYDRATED CULTURE MEDIA

### AZIDE DEXTROSE BROTH

A selective medium for the detection of enterococci.

Code Number:	<b>ADB20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*  
**Negative control:** *Escherichia coli*

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

### AZIDE DEXTROSE BROTH, ROTHE

A selective medium for the detection of enterococci.

Code Number:	<b>ADR20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*  
**Negative control:** *Escherichia coli*

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

### BACILLUS CEREUS (PEMBA) AGAR BASE

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

Code Number:	<b>BCA20500, BCA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (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 Egg Yolk Polymyxin (PEMBA) Emulsion (EYP80050-01). Mix well before pouring.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacillus cereus*  
**Negative control:** *Bacillus subtilis*, *Escherichia coli*

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

### BACILLUS CEREUS (PREP) AGAR BASE

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

Code Number:	<b>BPR20500, BPR25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacillus cereus*  
**Negative control:** *Bacillus subtilis*, *Escherichia coli*

**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.

Code Number:	<b>BBE20500, BBE25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacteroides fragilis*

**Negative control:** *Escherichia coli*, *Clostridium perfringens*

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

### BAGG BROTH BASE

A selective medium for the cultivation of faecal streptococci.

Code Number:	<b>BAG20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus faecalis*

**Negative control:** *Escherichia coli*

**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).

Code Number:	<b>BPA20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Staphylococcus epidermidis*, *Escherichia coli*

**References:** European Pharmacopoeia 5.6

### BAIRD-PARKER BROTH BASE

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

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

**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.

#### Formula in g/l

Peptone	16
Sodium pyruvate	10
Lithium chloride	5
Glycine	12

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

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

## II. DEHYDRATED CULTURE MEDIA

### BAT AGAR

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

Code Number:	<b>BTA20500, 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 it is necessary to adjust the pH 4 (approx.) cool to 50 °C and add 1 n sulphuric acid (approx: 1,7 ml) to the agar.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

Once acidified with sulphuric acid, the medium should not be re-heated.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Alicyclobacillus acidoterrestris*

**Negative control:** *Escherichia coli*, *Staphylococcus aureus*

**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.

Code Number:	<b>BEA20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Streptococcus pyogenes*

**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.

Code Number:	<b>BES20500, 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.

#### Formula in g/l

Peptones	25,30
Bacteriological bile	10,00
Sodium chloride	5,00
Ferric citrate	0,50
Sodium azide	0,15
Esculin	1,00
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Streptococcus pyogenes*

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

### BILE ESCULIN AZIDE BROTH

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

Code Number:	<b>BIB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*  
**Negative control:** *Streptococcus pyogenes, Escherichia coli*

**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.

Code Number:	<b>BEB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*  
**Negative control:** *Streptococcus pyogenes, Escherichia coli*

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

### BISMUTH SULPHITE AGAR BASE

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

Code Number:	<b>BSA20500, BSA25000</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 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 storage must be redissolved completely. Several refrigeration – warm up process can not cause any damage.
- To ensure homogeneity shake well the indicator before use.
- The complete medium should be used on the day of preparation.

#### Formula for one litre of the complete medium

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella typhi, Salmonella typhimurium*  
**Negative control:** *Proteus mirabilis, Escherichia coli*

**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.

Code Number:	<b>BAN20500, 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 blood. Mix well before pouring.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	22
Sodium chloride	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes, Streptococcus pneumoniae, Enterococcus faecalis*

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

## II. DEHYDRATED CULTURE MEDIA

### BLOOD AGAR BASE No.2

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

Code Number:	<b>BAL20500, BAL25000</b>
Colour:	<b>Beige</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 blood. Mix well before pouring.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Enterococcus faecalis*

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

### BLUE BROTH

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

Code Number:	<b>BLB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Lactose positive control:** *Escherichia coli*

**Lactose negative control:** *Proteus mirabilis*

### BLUE AGAR

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

Code Number:	<b>BLU20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Lactose positive control:** *Escherichia coli*

**Lactose negative control:** *Proteus mirabilis*

### BOLTON BROTH BASE

A selective medium for the selective enrichment of campylobacters.

Code Number:	<b>BOB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Campylobacter jejuni*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>BHA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*

#### Vancomycin Screen Agar:

**Positive control:** *Enterococcus faecalis* ATCC51299

**Negative control:** *Enterococcus faecalis* ATCC29212

**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.

Code Number:	<b>BHI20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*

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

### BRILLIANT GREEN AGAR BASE, MODIFIED

A selective and differential medium for the isolation of salmonellae other than *S. typhi*.

Code Number:	<b>BGM20500, BGM25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>6,9 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	17,0000
Lactose	10,0000
Sucrose	10,0000
Phenol red	0,0800
Brilliant green	0,0047
Buffers	1,6000
Agar	14,4000

**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 prepared medium protected from light at room temperature at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*,

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

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

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

Code Number:	<b>BPE20500, BPE25000</b>
Colour:	<b>Pinkish</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.

#### 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

## II. DEHYDRATED CULTURE MEDIA

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6

### BRILLIANT GREEN AGAR BASE, HUMAN

A selective medium for the isolation of salmonellae including *Salmonella typhi* from clinical specimens.

Code Number:	<b>BGH20500, BGH25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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 one dose (0,5 ml) of Brilliant Green Solution, Sterile (BGS80030). Mix well before pouring.

**Formula in g/l**

Peptones	16,500
Lactose	10,000
Sucrose	1,000
Glucose	0,500
Acid fuchsin	0,080
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Salmonella typhi*

**Negative control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

### BRILLIANT GREEN BILE (2%) BROTH

A selective and differential medium for the detection of coliform micro-organisms.

Code Number:	<b>BBB20500, BBB25000</b>
Colour:	<b>Greenish</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. Sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

**Warning!**

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

**Formula in g/l**

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

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Enterobacter aerogenes*

**Negative control:** *Staphylococcus aureus*

**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.

Code Number:	<b>BR020500, BR025000</b>
Colour:	<b>Beige</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. Sterilise by autoclaving at 121 °C for 15 minutes.

**Formula in g/l**

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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Lactose positive control:** *Escherichia coli*

**Lactose negative control:** *Salmonella typhimurium*

### BROMOCRESOL PURPLE AZIDE BROTH

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

Code Number:	<b>BCB20500, 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.

**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

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>BPD20500, 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

**Formula in g/l**

Peptones	11,500
Glucose	10,000
Sodium chloride	5,000
Bromocresol purple	0,015
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*

**References:** ISO 21528-2: 2004

### BROMOCRESOL PURPLE LACTOSE AGAR

A lactose containing differential medium for the isolation of coliforms.

Code Number:	<b>BPL20500, 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.

**Formula in g/l**

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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Lactose positive control:** *Escherichia coli*

**Lactose negative control:** *Salmonella typhimurium*

**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.

Code Number:	<b>BAB20500, 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.

**Formula in g/l**

Peptones	15
Glucose	10
Sodium chloride	5
Agar	15

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Brucella abortus*

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

### BRUCELLA BROTH

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

Code Number:	<b>BRB20500, 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.

**Formula in g/l**

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

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Brucella abortus*

**References:** Alton and Jones (1968) La brucellose, technique de laboratoire Genève: OMS

## II. DEHYDRATED CULTURE MEDIA

### BRYANT-BURKEY BROTH

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

Code Number:	<b>BBA20500-M</b>
Packaging:	<b>300 g broth base + 200 g supplement</b>
Appearance – broth base:	<b>Yellowish, homogeneous, hygroscopic powder</b>
Appearance – supplement:	<b>White powder</b>
pH after autoclaving:	<b>5,9 (approx.) at 25 °C</b>

**Direction:** Suspend 19 g of supplement 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 broth base 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 the freshly prepared lactate, carry out the two steps above successively.

#### Formula of ready medium in g/l

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

**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 prepared medium protected from light at 2-8 °C, but the best solution is to use it freshly.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

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

### CAMPYLOBACTER AGAR BASE

A selective medium for the isolation of campylobacters.

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

**Direction:** 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 and one vial of Campylobacter Selective Supplement, Skirrow (CSS80004) reconstituted with 4 ml of sterile distilled water, or one vial of Campylobacter Selective Supplement, Preston (CPS80004) reconstituted with 4 ml of 1:1 mixture of acetone and sterile distilled water, or one vial of Campylobacter Selective Supplement, Blaser-Wang (CBW80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Formula in g/l

Peptones	20
Sodium chloride	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Campylobacter jejuni*

**Negative control:** *Escherichia coli*

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

### CAMPYLOBACTER AGAR BASE, KARMALI

A selective blood-free medium for the isolation of campylobacters.

Code Number:	<b>CAK20500, 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.

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Campylobacter jejuni*

**Negative control:** *Escherichia coli*

**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 campylobacters.

Code Number:	<b>CCA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**
**Positive control:** *Campylobacter jejuni*
**Negative control:** *Escherichia coli*
**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.

Code Number:	CLP20500, CLP25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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 dissolved 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.

**Formula in g/l**

Casein peptone	20
Lecithin	5

**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 prepared medium protected from light at room temperature.

**Quality Control:**
**Positive control:** *Escherichia coli*, *Staphylococcus aureus*
**References:** United States Pharmacopoeia XXIII. (1995)

### CATC AGAR BASE

A selective medium for the detection of enterococci.

Code Number:	CAT20500, CAT25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,0 (approx.) at 25 °C

**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.

**Formula in g/l**

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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**
**Positive control:** *Enterococcus faecalis*
**Negative control:** *Escherichia coli*
**References:** Burkwall and Hartman (1964) Appl. Microbiol. 12: 18.

### CETRIMIDE AGAR BASE, PH EUR - USP

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

Code Number:	CAB20500, CAB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

**Formula in g/l**

Gelatin peptone	20,0
Potassium sulphate	10,0
Magnesium chloride	1,4
Cetrimide	0,3
Agar	13,3

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**
**Positive control:** *Pseudomonas aeruginosa*
**Negative control:** *Escherichia coli*
**References:** European Pharmacopoeia 5.6

### CETRIMIDE (CN) AGAR BASE

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

Code Number:	CCN20500, CCN25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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.

**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

**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 prepared medium protected from light at 2-8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

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

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

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

Code Number: **CCT20500, CCT25000**

Colour: **Yellowish**

Appearance: **Homogeneous hygroscopic powder**

pH before autoclaving: **7,1 (approx.) at 25 °C**

**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.

### Formula in g/l

Peptones	25,6
Magnesium chloride	1,4
Potassium sulphate	10,0
Agar	13,0

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

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

### CHARCOAL AGAR BASE

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

Code Number: **CHA20500, CHA25000**

Colour: **Black**

Appearance: **Homogeneous hygroscopic powder**

pH before autoclaving: **7,2 (approx.) at 25 °C**

**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 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.

### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Selective media:**

**Positive control:** *Bordetella pertussis*

**Negative control:** *Klebsiella pneumoniae*, *Staphylococcus aureus*

### Chocolate media:

**Positive control:** *Haemophilus influenzae*

**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.

Code Number: **CBA20500, CBA25000**

Colour: **Beige**

Appearance: **Homogeneous hygroscopic powder**

pH before autoclaving: **7,0 (approx.) at 25 °C**

**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.

### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Lactose positive control:** *Escherichia coli*

**Lactose negative control:** *Proteus mirabilis*

**References:** Brandl and Soback-Skal (1963) Milchwiss. Ber. 13: 1.

### CHLORAMPHENICOL GLUCOSE AGAR

A selective medium for the enumeration of yeasts and moulds.

Code Number:	<b>CGA20500, 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.

#### Formula in g/l

Yeast extract	5,0
Glucose	20,0
Chloramphenicol	0,2
Agar	14,8

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control:** *Escherichia coli*

**References:** ISO 7954: 2001

### CHOCOLATE AGAR BASE

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

Code Number:	<b>CHO20500, CHO25000</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 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 minutes. 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 in g/l

Nutrient substrate (peptones, extracts)	13
Sodium chloride	5
Buffers	1
Agar	14

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Haemophilus influenzae*

**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.

Code Number:	<b>CAN20500, CAN25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,0 (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. Mix well before pouring.

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

#### Formula in g/l

Peptones	10,5
Glucose	20,0
Chromogenic substrate	2,0
Chloramphenicol	0,5
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*, *Candida tropicalis*, *Candida krusei*

**Negative control:** *Escherichia coli*



### ChromoBio® CEREUS BASE

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

Code Number:	<b>CER20500, 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 to 50 °C the agar base and add aseptically the supplement. Mix well before pouring. To ensure the complete homogeneity repeat the mixing a few times during the pouring again.

#### FORMULA in g/l

Peptones	18
Chromogenic substrate	2
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacillus cereus*

**Negative control:** *Escherichia coli*, *Bacillus subtilis*, *Enterococcus faecalis*



## II. DEHYDRATED CULTURE MEDIA

### ChromoBio® COLIFORM

A selective and differential chromogenic medium for the simultaneous detection of coliforms and *Escherichia coli*.

Code Number:	COF20500, COF25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
Final pH:	6,8 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	3,50
Sorbitol	1,00
Sodium chloride	5,00
Sodium pyruvate	1,00
Tryptophane	1,00
Chromogenic substrate	0,40
Tergitol 7	0,15
Buffers	4,90
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Citrobacter freundii*

**Negative control:** *Salmonella enteritidis*, *Enterococcus faecalis*

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

### ChromoBio® ENTEROCOCCUS AGAR

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

Code Number:	CEA20500, CEA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,0 (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 115 °C for 15 minutes.

#### Warning!

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

#### Formula in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*

### ChromoBio® ENTEROCOCCUS BROTH

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

Code Number:	CEB20500, CEB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,5 (approx.) at 25 °C

**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.

#### Formula in g/l

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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecali*

**Negative control:** *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*



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### ChromoBio® LISTERIA BASE

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

Code Number:	<b>AL020500, AL025000</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 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.

**FORMULA FOR ONE LITRE OF THE COMPLETE MEDIUM**

Enzymatic digest of animal tis-sue	18,00 g
Enzymatic digest of casein	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
Nalidixic acid	0,02 g
Ceftazidime	0,02 g
Amphotericin B	0,01 g
Polymyxin B	76.700 U
Disodium hydrogen phosphate	2,50 g
Agar	12,00 g

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Listeria monocytogenes*  
**Negative control:** *Listeria innocua, Escherichia coli*

**References:** Ottaviani et al. (1997) Quimper Froid Symposium Proceedings, P6 A.D.R.I.A. Quimper (F) ISO 11290-1: 2004

RENEWED  
PRODUCT

### ChromoBio® LISTERIA PLUS BASE

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.

Code Number:	<b>LCA20500, LCA25000</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 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.

**FORMULA FOR ONE LITRE OF THE 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	13,00 g

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Listeria monocytogenes*  
**Negative control:** *Listeria ivanovii, Listeria innocua, Escherichia coli*

**References:** Ottaviani et al. (1997) Quimper Froid Symposium Proceedings, P6 A.D.R.I.A. Quimper (F) 16 – 18 June

### ChromoBio® LMX

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

Code Number:	<b>LMX20500, LMX25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,8 (approx.) at 25 °C</b>

**Direction:** Suspend 17 g in one litre of distilled water for single strength broth or 34 g for double strength broth and heat gently to dissolve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Cool quickly!

**Formula in g/l**

Peptones	5,00
Sorbitol	1,00
Sodium chloride	5,00
Tryptophan	1,00
Fluorogen and chromogen substrate	0,23
Sodium lauryl sulphate	0,10
Buffers	4,70

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Escherichia coli, Citrobacter freundii, Salmonella enteritidis*  
**Negative control:** *Enterococcus faecalis*

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

## II. DEHYDRATED CULTURE MEDIA

### ChromoBio® M-CP BASE

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

Code Number:	MCP20500, MCP25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,6 (approx.) at 25 °C

**Direction for 100 ml of Agar:** Suspend 7,1 g in 100 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 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 of Agar:** Suspend 35,5 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 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 in g/l

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

**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 prepared medium protected from light at 2-8 °C, but no longer than 2 or 3 days.

#### Quality Control:

**Positive control:** *Clostridium perfringens*  
**Negative control:** *Escherichia coli*

**References:** ISO 6461-1: 1986  
ISO 6461-2: 1986

NEW PRODUCT

### ChromoBio® MLGA

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

Code Number:	MLG20500, MLG25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,0 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Enterobacter aerogenes*, *Pseudomonas aeruginosa*  
**Negative control:** *Enterococcus faecalis*



### ChromoBio® SALMONELLA BASE

A selective and differential chromogenic medium for the detection of salmonellae.

Code Number:	SAL20500, SAL25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,4 (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 Salmonella Selective Supplement (SSS80004) reconstituted with 4 ml sterile distilled water. Mix well before pouring.

#### FORMULA in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella typhimurium*  
**Negative control:** *Proteus mirabilis*, *Pseudomonas aeruginosa*, *Enterococcus faecalis*

NEW PRODUCT

### ChromoBio® SALMONELLA PLUS BASE

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

Code Number:	SAP20500, SAP25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,4 (approx.) at 25 °C

**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.

#### FORMULA in g/l

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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella typhimurium*  
**Negative control:** *Escherichia coli*, *Pseudomonas aeruginosa*, *Proteus mirabilis*, *Enterococcus faecalis*

### ChromoBio® TBX

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

Code Number:	<b>TBX20500, 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.

#### Formula in g/l

Peptones	20,500
Bile salts	1,500
Chromogenic substrate	0,075
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*  
**Negative control:** *Enterococcus faecalis*, *Proteus mirabilis*

**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.

Code Number:	<b>URN20500, 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.

#### Formula in g/l

Peptones	26
Chromogenic substrate	6
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Citrobacter freundii*, *Enterobacter aerogenes*,  
*Proteus mirabilis*, *Enterococcus faecalis*, *Staphylococcus aureus*

### 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.

Code Number:	<b>CLB20500, CLB25000</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. 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 dissolved completely (20-30 min). The ready 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.

#### Formula in g/l

Peptones	23,700
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) and Mn(II) salts	0,410
L-Asparagine	1,250
L-Cystine	0,500
Lecithin	1,000
Resazurin	0,001
Buffers	2,000
Agar	0,750

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*, *Clostridium perfringens*

**References:** Clausen (1956) Acta path. microbiol. scand. 38: 107.

### CLED AGAR

A differential medium for the isolation and enumeration of micro-organisms from urine.

Code Number:	<b>CLA20500, 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.

#### Formula in g/l

Peptones	11,900
Lactose	10,000
L-Cystine	0,128
Bromothymol blue	0,020
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

**References:** Mackey et al. (1966) Br. Med. J. 1: 1173.

## II. DEHYDRATED CULTURE MEDIA

### 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.

Code Number:	CLD20500, CLD25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	11,800
Lactose	10,000
L-Cystine	0,128
Andrade indicator	0,100
Bromothymol blue	0,020
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

**References:** Bevis (1968) J. Med. Lab. Tech. 25: 38.

### CLOSTRIDIUM DIFFICILE AGAR BASE

A selective medium for the isolation of *Clostridium difficile*.

Code Number:	CDA20500, 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 reduction in selectivity, treat the specimen with alcohol before inoculation.

#### Formula in g/l

Peptones	40,0
Fructose	6,0
Sodium chloride	2,0
Magnesium sulphate	0,1
Buffers	5,9
Agar	15,0

**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 prepared medium protected from light at 2-8 °C, no longer than 5 days.

#### Quality Control:

**Positive control:** *Clostridium difficile*

**Negative control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** George et al. (1976) J. Clin. Microbiol. 9: 214.

### CLOSTRIDIUM DIFFICILE (CCFA) AGAR BASE

A selective medium for the isolation of *Clostridium difficile*.

Code Number:	CCF20500, 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 sensitivity of some strains of *Clostridium difficile*, the amount of cycloserine and cefoxitin is reduced. If you want to compensate the reduction in selectivity, treat the specimen with alcohol before inoculation.

#### Formula in g/l

Peptones	35,00
Fructose	6,00
Sodium chloride	2,00
Magnesium sulphate	0,20
Neutral red	0,03
Buffers	5,80
Agar	20,00

**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 prepared medium protected from light at 2-8 °C, no longer than 5 days.

#### Quality Control:

**Positive control:** *Clostridium difficile*

**Negative control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** George et al. (1976) J. Clin. Microbiol. 9: 214.

### COLUMBIA BLOOD AGAR BASE

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

Code Number:	COL20500, COL25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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 blood. Mix well before pouring.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	23
Starch soluble	1
Sodium chloride	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Enterococcus faecalis*

**References:** Ellner et al. (1966) Am. J. Clin. Pathol. 45: 502.

### 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).

Code Number:	<b>CLE20500, CLE25000</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 one litre of distilled water and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Casein peptone	10
Meat peptone	5
Heart infusion	3
Yeast extract	5
Starch soluble	1
Sodium chloride	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli, Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

### COLUMBIA CNA AGAR BASE

A selective medium for the isolation and differentiation of Gram-positive micro-organisms.

Code Number:	<b>CNA20500, 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 blood. Mix well before pouring.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes, Streptococcus pneumoniae, Streptococcus faecalis*

**Negative control:** *Proteus mirabilis*

**References:** Ellner et al. (1966) Am. J. Clin. Pathol. 45: 502.

### CZAPEK-DOX AGAR

A selective medium for the cultivation of fungi and soil bacteria.

Code Number:	<b>CZA20500, 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 it is necessary to adjust the 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 re-heated.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Aspergillus niger*

**Negative control:** *Escherichia coli*

**References:** APHA (1992) Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> ed.

### CZAPEK YEAST EXTRACT AGAR

A selective medium for the cultivation of fungi and soil bacteria.

Code Number:	<b>CYA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

**Positive control:** *Aspergillus niger*

**Negative control:** *Escherichia coli*

**References:** Warcup (1950) Nature 166: 117.

### DECARBOXYLASE BROTH BASES

**See:** Culture Media for Amino Acid Decomposition Studies (page 13)

### DEOXYCHOLATE CITRATE AGAR, HYNES, MODIFIED

A selective and differential medium for the isolation of Gram-negative enteric micro-organisms. 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.

Code Number:	<b>DCH20500, DCH25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,0 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	26,50
Lactose	10,00
Sodium citrate	9,00
Sodium thiosulphate	5,50
Sodium deoxycholate	5,00
Ferric citrate	1,00
L-Phenylalanine	1,00
Neutral red	0,02
Agar	15,00

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*,  
*Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**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.

Code Number:	<b>DCC20500, DCC25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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.

#### Formula in g/l

Peptones	26,50
Lactose	10,00
Sodium citrate	5,00
Sodium thiosulphate	5,00
Sodium deoxycholate	2,50
Ferric citrate	1,00
L-Phenylalanine	1,00
Neutral red	0,02
Agar	15,00

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*, *Shigella sonnei*,  
*Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**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).

Code Number:	<b>DCE20500, DCE25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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.

### 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

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*, *Shigella sonnei*,  
*Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6

### DEOXYCHOLATE LACTOSE AGAR

A selective and differential medium for the enumeration and isolation of coliform micro-organisms.

Code Number:	<b>DCL20500, DCL25000</b>
Colour:	<b>Beige</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 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.

### 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

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** APHA (1992) Compendium of Methods for the Microbiological Examinations of Foods, 3<sup>rd</sup> ed.

### DEXTROSE BROTH

A general purpose enrichment medium is also usable for studying of dextrose fermentation.

Code Number:	<b>DEB20500, 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 into the tubes in order to determine gas production. Sterilise by autoclaving at 121 °C for 15 minutes.

### Formula in g/l

Peptones	10
Glucose	5
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Escherichia coli*, *Streptococcus pyogenes*

### DEXTROSE TRYPTONE AGAR

A differential medium for the detection and enumeration of mesophilic and thermophilic aerobic micro-organisms.

Code Number:	<b>DTR20500, 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.

### Formula in g/l

Tryptone	10,00
Glucose	5,00
Bromocresol purple	0,04
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Bacillus stearothermophilus*

**References:** APHA (1992) Compendium of Methods for the Microbiological Examination of Foods



## II. DEHYDRATED CULTURE MEDIA

### DEXTROSE TRYPTONE BROTH

A differential medium for the detection of mesophilic and thermophilic aerobic micro-organisms.

Code Number:	<b>DTB20500, 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.

#### Formula in g/l

Tryptone	10,00
Glucose	5,00
Bromocresol purple	0,04

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Bacillus stearothermophilus*

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods

### DG18 AGAR BASE

A selective medium with low water activity for the enumeration and isolation of yeasts and moulds, especially the xerophilic moulds.

Code Number:	<b>D1820500, 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 32 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.

#### Formula in g/l

Peptones	5,000
Glucose	10,000
Magnesium sulphate	0,500
Chloramphenicol	0,100
Dichloran	0,002
Buffers	1,000
Agar	15,400

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**References:** Hocking and Pitt (1980) J. Appl. Envir. Micr. 39: 488.

### DIAGNOSTIC SENSITIVITY TEST AGAR

A dual purpose medium for the isolation and antimicrobial susceptibility testing of micro-organisms.

Code Number:	<b>DST20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa, Streptococcus pneumoniae, Enterococcus faecalis*

**References:** Ericsson et al. (1971) Acta Path. Microbiol. Scan. B. Suppl. 217.

### DIASALM MEDIUM BASE

A semi-solid selective motility medium for the isolation of *Salmonella* spp.

Code Number:	<b>DIM20500, DIM25000</b>
Colour:	<b>Greenish</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.

#### Formula in g/l

Peptones	27,000
Sucrose	7,500
Lactose	0,500
Sodium thiosulphate	0,800
Ferrous ammonium sulphate	0,200
Bromocresol purple	0,080
Malachite green	0,037
Buffers	1,200
Agar	2,700



**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 prepared medium protected from light at 2-8 °C, but no longer than 2 or 3 days.

**Quality Control:**

**Positive control:** *Salmonella enteritidis*  
**Negative control:** *Pseudomonas aeruginosa*

**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.

Code Number:	<b>DNA20500, 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.

**Formula in g/l**

Tryptose	20
Sodium chloride	5
Deoxyribonucleic acid	2
Agar	13

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Staphylococcus aureus*  
**Negative control:** *Staphylococcus epidermidis*

**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.

Code Number:	<b>DNM20500, 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.

**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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Staphylococcus aureus*  
**Negative control:** *Staphylococcus epidermidis*

**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.

Code Number:	<b>DNG20500, DNG25000</b>
Colour:	<b>Greenish</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.

**Formula in g/l**

Tryptose	20,00
Sodium chloride	5,00
Deoxyribonucleic acid	2,00
Methyl green	0,05
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Staphylococcus aureus*  
**Negative control:** *Staphylococcus epidermidis*

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

### DNASE AGAR WITH TOLUIDINE BLUE

A differential medium for the detection of deoxyribonuclease activity of micro-organisms.

Code Number:	<b>DNT20500, 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.

**Formula in g/l**

Tryptose	20,0
Sodium chloride	5,0
Deoxyribonucleic acid	2,0
Toluidine blue	0,1
Agar	13,0

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Staphylococcus aureus*  
**Negative control:** *Staphylococcus epidermidis*

**References:** Jeffries et al. (1957) J. Bact. 73: 590.

## II. DEHYDRATED CULTURE MEDIA

### DRIGALSKI GLUCOSE AGAR

A glucose containing selective and differential medium for the detection and enumeration of enterobacteriaceae.

Code Number:	DAC20500, DAC25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,3 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Staphylococcus aureus*

**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 the detection and enumeration of coliforms.

Code Number:	DAS20500, DAS25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,3 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Staphylococcus aureus*

**References:** Ewing (1986) Edwards and Ewing's identifications of the enterobacteriaceae, 4<sup>th</sup> ed.

### DTM AGAR BASE

A highly selective medium for the isolation of dermatophytes.

Code Number:	DTM20500, 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.

#### Formula in g/l

Peptones	10,0
Glucose	10,0
Phenol red	0,2
Agar	20,0

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control:** *Saccharomyces cerevisiae*

**References:** Taplin et al. (1969) Arch. Dermatol. 99: 203.

### EC BROTH

A selective and differential medium for the detection of coliform bacteria.

Code Number:	ECB20500, 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.

### Formula in g/l

Peptones	23,0
Bile salts	1,5
Lactose	5,0
Sodium chloride	5,0
Buffers	5,5

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Enterobacter aerogenes*, *Escherichia coli*

**Negative control:** *Streptococcus faecalis*

**References:** Hajna and Perry (1943) Am. J. Public. Health. 33: 550.

### EE BROTH, PH EUR – USP

A selective medium for the cultivation of enterobacteriaceae according to PH EUR (Broth Medium E – Enterobacteria Enrichment Broth, Mossel – Harmonised).

Code Number:	<b>EEB20500, EEB25000</b>
Colour:	<b>Greenish</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 for single strength broth or 90 g for double strength broth 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.

### Formula in g/l

Gelatin peptone	10,000
Bacteriological bile	20,000
Glucose monohydrate	5,000
Brilliant green	0,015
Potassium dihydrogen phosphate	2,000
Disodium hydrogen phosphate dihydrate	8,000

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Staphylococcus aureus*

**References:** Mossel et. al. (1963) J. Apple. Bact. 26: 444.  
European Pharmacopoeia 5.6

### EDWARDS AGAR BASE

A selective medium for the isolation and enumeration of streptococci especially *Streptococcus agalactiae*.

Code Number:	<b>EDA20500, EDA25000</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 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 blood. Mix well before pouring.

### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Streptococcus agalactiae*

**Negative control:** *Escherichia coli*

**References:** Ewards (1933) J. Comp. Path. Therap. 46: 211.

### ELLIKER BROTH

A selective medium for the cultivation of streptococci and lactobacilli.

Code Number:	<b>ELB20500, 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 container and sterilise by autoclaving at 121 °C for 15 minutes.

### 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

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Lactobacillus casei*

**References:** McLaughlin (1946) J. Bacteriol. 51: 560.

## II. DEHYDRATED CULTURE MEDIA

### ENDO AGAR BASE

A selective and differential medium for the detection of coliforms and other enteric bacteria.

Code Number:	END20500, END25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,4 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	12,0
Lactose	10,0
Sodium sulphite	2,5
Buffers	2,5
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*

**Negative control:** *Enterococcus faecalis*

**References:** APHA (1998) Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> ed.

### ENDO AGAR BASE, DEV

A selective and differential medium for the detection of coliforms and other enteric bacteria according to DEV.

Code Number:	EDE20500, EDE25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,9 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	20,5
Lactose	10,0
Sodium chloride	5,0
Sodium sulphite	2,5
Agar	20,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*

**Negative control:** *Enterococcus faecalis*

**References:** DIN 38411

### ENDO LES AGAR BASE

A selective and differential medium for the enumeration of coliforms by membrane filtration.

Code Number:	ELA20500, ELA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*

**Negative control:** *Enterococcus faecalis*

**References:** McCarthy et al. (1961) Water Sewage Works 108: 238.

### ENDO M BROTH BASE

A selective and differential medium for the one-step method for the enumeration of coliforms by membrane filtration.

Code Number:	ENB20500, ENB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

#### Warning!

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

#### 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

**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 prepared medium protected from light at 2-8 °C no longer than one week, but the best solution is to use on the day of preparation.

### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Enterococcus faecalis*

**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.

Code Number:	<b>EMB20500, EMB25000</b>
Colour:	<b>Pinkish</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.

#### Formula in g/l

Peptones	10,500
Lactose	10,000
Eosin Y	0,400
Methylene blue	0,065
Buffers	2,000
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** Levine (1918) J. Infect. Dis. 23: 43.  
United States Pharmacopoeia XXVIII. (2005)

NEW PRODUCT

### EOSIN METHYLENE BLUE LACTOSE SUCROSE AGAR

A selective and differential medium for the isolation and differentiation of Gram-negative enteric bacteria.

Code Number:	<b>EMC20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella typhimurium*

**Negative control:** *Enterococcus faecalis*

**References:** APHA (1950) Diagnostic Procedures and Reagents, 2nd ed.

### ESCULIN AGAR

A differential medium for the detection of esculin hydrolysis.

Code Number:	<b>ESA20500, 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.

#### Formula in g/l

Peptones	18
Ferric citrate	1
Esculin	1
Agar	15

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Streptococcus pyogenes*

**References:** Blazevic and Ederer (1975) Principles of Biochemical Tests in Diag. Microbiol.

### ESCULIN BROTH

A differential medium for the detection of esculin hydrolysis.

Code Number:	<b>ESB20500, 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.

#### Formula in g/l

Peptones	10
Ferric citrate	1
Esculin	1

**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 prepared medium protected from light at room temperature.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Streptococcus pyogenes*

**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.

Code Number:	<b>EVA20500, 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.

#### Formula in g/l

Peptones	20,000
Glucose	5,000
Sodium chloride	5,000
Sodium azide	0,400
Ethyl violet	0,0008
Buffers	5,600

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>EUA20500, EUA25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,0 (approx.) at 25 °C</b>

**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 ready 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. Mix well before pouring.

### FORMULA OF READY MEDIUM 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
TWEEN 80	5,0
TRITON X-100	1,0
Agar	13,0

**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 prepared medium protected from light at 2 - 8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Aspergillus brasiliensis*, *Candida albicans*

**References:** ISO 21148: 2009

NEW PRODUCT

### EUGON LT 100 BROTH BASE

A neutralising medium for the preparation and enrichment of test samples in the cosmetic industries.

Code Number:	<b>EUB20500, EUB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,0 (approx.) at 25 °C</b>

**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 ready 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. Mix well before use!

#### Warning!

At the bottom of the container some separation of supplement TWEEN might be observed which has no effect on the quality of the medium. Shaking the container it disappears.

### FORMULA OF READY MEDIUM 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
TWEEN 80	5,0
TRITON X-100	1,0

**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 prepared medium protected from light at 2 - 8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Aspergillus brasiliensis*, *Candida albicans*

**References:** ISO 21148: 2009

### FluoroBio® BGLB

A selective medium for the detection of coliform bacteria by a fluorogenic procedure.

Code Number:	<b>BBM20500, BBM25000</b>
Colour:	<b>Greenish</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.

**Formula in g/l**

Peptones	10,0000
Bacteriological bile	20,0000
Lactose	10,0000
MUG	0,0500
Brilliant green	0,0133

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Enterobacter aerogenes*

**Negative control:** *Staphylococcus aureus*

**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.

Code Number:	<b>CLM20500, 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.

**Formula in g/l**

Peptones	11,800
Lactose	10,000
L-Cystine	0,128
MUG	0,100
Bromothymol blue	0,020
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

**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 coliform bacteria by a fluorogenic procedure.

Code Number:	<b>ECM20500, 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.

**Formula in g/l**

Peptones	23,00
Bile salts	1,50
Lactose	5,00
Sodium chloride	5,00
MUG	0,05
Buffers	5,50

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Enterobacter aerogenes*, *Escherichia coli*

**Negative control:** *Streptococcus faecalis*

**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.

Code Number:	<b>EDM20500, 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.

**Formula in g/l**

Peptones	20,0
Bile salts	1,5
Lactose	5,0
Sodium chloride	5,0
Tryptophane	1,0
MUG	0,1
Buffers	5,4
Agar	13,0

**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 prepared medium protected from light at 2-8 °C.

## II. DEHYDRATED CULTURE MEDIA

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*

**Negative control:** *Enterococcus faecalis*

**References:** Hajna and 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 coliform bacteria by a fluorogenic procedure.

Code Number:	LSM20500, LSM25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,8 (approx.) at 25 °C

**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.

### Formula in g/l

Tryptose	19,40
Lactose	5,00
Sodium chloride	5,00
Sodium lauryl sulphate	0,10
MUG	0,10
Buffers	5,40

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*

**Negative control:** *Enterococcus faecalis*

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods.  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® MACCONKEY AGAR

A selective and differential medium for the detection of coliform bacteria and enteric pathogens by a fluorogenic procedure.

Code Number:	MCM20500, MCM25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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.

### Formula in g/l

Peptones	20,400
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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** MacConkey (1900) The Lancet  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.

### FluoroBio® MACCONKEY BROTH

A differential medium containing neutral red for the detection of coliform bacteria by a fluorogenic procedure.

Code Number:	MNM20500, MNM25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**Direction:** Suspend 37 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.

### Formula in g/l

Peptones	20,40
Bile salts No.3	1,50
Lactose	10,00
Sodium chloride	5,00
MUG	0,10
Neutral red	0,03

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** WHO (1963) Int. Stand. for Drinking Water  
Kilian and Bulow (1984) Acta Path. Micr. Scand. Sect. B. 84: 245.



### FluoroBio® MACCONKEY BROTH, PURPLE

A differential medium containing bromocresol purple for the detection of coliform bacteria by a fluorogenic procedure.

Code Number:	MPM20500, MPM25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**Direction:** Suspend 37 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.

#### Formula in g/l

Peptones	20,40
Bile salts No.3	1,50
Lactose	10,00
Sodium chloride	5,00
MUG	0,10
Bromocresol purple	0,01

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** WHO (1963) Int. Stand. for Drinking Water  
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.

Code Number:	VBM20500, VBM25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,4 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Staphylococcus aureus*

**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.

Code Number:	GBS20500, 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.

#### Formula in g/l

Peptones	23
Starch soluble	5
Buffers	7
Agar	12

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus agalactiae*

**Negative control:** *Enterococcus faecalis*

**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.

Code Number:	GCA20500, 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.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	15
Sodium chloride	5
Starch soluble	1
Buffers	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Neisseria gonorrhoeae*, *Neisseria meningitidis*

**Negative control (in case of selective media):**

*Proteus mirabilis*, *Staphylococcus aureus*

**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*.

Code Number:	<b>GCB20500, GCB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,0 (approx.) at 25 °C</b>

**Direction:** Suspend 54 g in one litre of distilled water. Heat gently to dissolve completely. Dispense into final containers and sterilise by autoclaving at 121°C for 15 minutes. Cool rapidly and add one drop (50 µl) Giolitti-Cantoni Potassium Tellurite Solution (PTG80050) to each 10 ml of the medium aseptically, through a sterile filter.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

**References:** Giolitti and Cantoni (1966) J. Appl. Bact. 29: 395.

### GLUTAMATE BROTH BASE, MODIFIED

A synthetic differential medium for the enumeration of the coliforms in water.

Code Number:	<b>MMG20500, MMG25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Lactose	10,000
Sodium formate	0,250
Amino acids	0,064
Minerals	0,111
Vitamins	0,003
Bromocresol purple	0,020
Buffers	0,950

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Salmonella enteritidis*

**References:** PHLS (1968) J. Hyg. Camb. 66: 67-82.

### GN BROTH

A selective medium for the enrichment of *Salmonella* and *Shigella* spp.

Code Number:	<b>GNB20500, GNB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,0 (approx.) at 25 °C</b>

**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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*, *Shigella sonnei*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>GSP20500, GSP25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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. 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 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*, *Aeromonas hydrophila*

**Negative control:** *Staphylococcus aureus*

**References:** Kielwen et al. (1969) Arch. f. Lebensmittelhyg. 20: 131.

### HAEMOPHILUS TEST AGAR BASE

A standard medium for the susceptibility testing of *Haemophilus influenzae*.

Code Number:	HTM20500, 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.

#### Formula in g/l

Mueller-Hinton II Agar	38
Yeast extract	5

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Haemophilus influenzae*

**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.

Code Number:	HEA20500, 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.

#### Warning!

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

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella flexneri*, *Salmonella enteritidis*

**Negative control:** *Enterococcus faecalis*

**References:** King and Metzger (1968) Appl. Microbiol. 16: 577.

### HUGH-LEIFSON OF MEDIUM BASE

A semi-solid medium base for the carbohydrate fermentation studies.

Code Number:	SUG20500, SUG25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	3,00
Sodium chloride	5,00
Bromocresol purple	0,03
Buffers	1,00
Agar	3,00

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** Use micro-organisms, which have known positive or negative reactions with investigated sugars.

**References:** Hugh and Leifson (1953) J. Bact. 66: 24.

### INDOLE MOTILITY ORNITHINE (IMO) MEDIUM

A semi-solid differential medium for the differentiation of Gram-negative enteric bacteria on the basis of the indole production, motility and the ornithine decarboxylase activity.

Code Number:	IMO20500, IMO25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,6 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	16,00
Glucose	1,00
L-Ornithine	5,00
Bromocresol purple	0,03
Buffers	1,00
Agar	3,00

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Enterobacter aerogenes*, *Klebsiella pneumoniae*

**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.

Code Number:	ISA20500, ISA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	25
Disodium disulphite	1
Ferric ammonium citrate	1
Agar	13

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** ISO 15213: 2003

### KANAMYCIN ESCULIN AZIDE AGAR

A selective and differential medium for the isolation of enterococci.

Code Number:	KEA20500, KEA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**References:** Mossel et al. (1978) Arch. Lebensmittel-hyg. 29: 121.

### K AGAR BASE

A medium for the detection of *Alicyclobacillus* spp.

Code Number:	KSA20500, KSA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH after supplementation:	3,7 (approx.) at 25 °C

**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 re-heated.

#### Formula in g/l

Peptones	8
Glucose	1
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Alicyclobacillus acidoterrestris*

### KANAMYCIN ESCULIN AZIDE BROTH

A selective medium for the isolation of enterococci.

Code Number:	KEB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**References:** Mossel et al. (1978) Arch. Lebensmittel-hyg. 29: 121.

### KF STREPTOCOCCUS AGAR BASE

A selective medium for the isolation and enumeration of enterococci.

Code Number:	<b>KFA20500, KFA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,2 (approx.) at 25 °C</b>

**Direction:** Suspend 72 g in one litre of distilled water and boil to dissolve the medium completely. Cool to 50 °C and add one drop KF TTC Solution (KTS80005) to each 100 ml of the medium. Mix well before pouring.

#### Warning!

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

#### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>KIM20500, KIM25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,5 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	15
Glucose	19
Sodium chloride	1
Agar	15

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Candida albicans*

**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 piocyanin and inhibits the formation of fluorescein.

Code Number:	<b>KAA20500, 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.

#### Formula in g/l

Peptones	19,6
Potassium sulphate	10,0
Magnesium chloride	1,4
Agar	13,0

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**References:** King et al. (1954) J. Lab. and Clin. Med. 44: 301.  
United States Pharmacopoeia XXVIII. (2005)

### 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 piocyanin.

Code Number:	<b>KAB20500, 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.

#### Formula in g/l

Peptones	20,0
Magnesium sulphate	1,5
Buffers	1,5
Agar	13,0

## II. DEHYDRATED CULTURE MEDIA

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Pseudomonas aeruginosa*

**References:** King et al. (1954) J. Lab. and Clin. Med. 44: 301.  
United States Pharmacopoeia XXVIII. (2005)

### KLIGLER IRON AGAR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of carbohydrate fermentation and hydrogen sulphite production.

Code Number:	KIA20500, KIA25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,4 (approx.) at 25 °C

**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 slant with deep butt.

**Formula in g/l**

Peptones	26,40
Lactose	10,00
Glucose	1,00
Sodium chloride	5,00
Sodium thiosulphate	0,30
Ferric citrate	0,30
Phenol red	0,05
Agar	13,00

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Salmonella Enteritidis*, *Shigella flexneri*

**References:** Kligler (1917) Am. J. Pub. Hlth. 7: 1042.

### KLIMMER AGAR

A selective medium for the detection and enumeration of coliforms.

Code Number:	KLA20500, KLA25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,3 (approx.) at 25 °C

**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.

**Formula in g/l**

Peptones	15,20
Lactose	12,00
Sodium chloride	3,60
Acriflavine	0,06
Bromothymol blue	0,20
Agar	15,00

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*

**Negative control:** *Staphylococcus aureus*

### KOSER CITRATE BROTH

A differential medium for the differentiation of Gram-negative bacteria on the basis of citrate utilisation.

Code Number:	KSB20500, KSB25000
Colour:	White
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,7 (approx.) at 25 °C

**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.

**Formula in g/l**

Sodium citrate	3,000
Magnesium sulphate	0,200
Phenol red	0,015
Buffers	2,800

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Enterobacter aerogenes*

**Negative control:** *Escherichia coli*

**References:** Koser (1923) J. Bacteriol. 8: 493.

### LACTOSE BROTH, PH EUR

A differential medium for the cultivation and presumptive identification of coliforms according to PH EUR (Broth Medium D).

Code Number:	LAB20500, LAB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,9 (approx.) at 25 °C

**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!

**Formula in g/l**

Gelatin peptone	5
Beef extract	3
Lactose monohydrate	5

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Enterobacter aerogenes*

**Negative control:** *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6

### LACTOSE PEPTONE BROTH, DEV

A differential medium for the cultivation and enumeration of coliforms.

Code Number:	<b>LPB20500, 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!

#### Formula in g/l

Peptones	20,00
Lactose	10,00
Sodium chloride	5,00
Bromocresol purple	0,02

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Salmonella typhimurium*

**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).

Code Number:	<b>LSU20500, 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 tubes.

#### Formula in g/l

Casein peptone	5,0
Yeast extract	2,5
Lactose monohydrate	10,0
Sodium chloride	2,5
L-Cysteine	0,3

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** European Pharmacopoeia 5.6

### LACTOSE (1%) PHENOL RED BROTH

A differential medium for the cultivation and presumptive identification of coliforms.

Code Number:	<b>LFB20500, 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.

#### Formula in g/l

Peptones	10,00
Lactose	10,00
Sodium chloride	5,00
Phenol red	0,01

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Salmonella typhimurium*

**References:** Murray et al. (1995) Manual of clinical Microbiology, 6<sup>th</sup> ed.

### Lauria-Bertani Broth

A non-selective medium for molecular genetics studies.

Code Number:	<b>LBB20500, 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.

#### Formula in g/l

Casein peptone	10
Yeast extract	5
Sodium chloride	10

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli, Staphylococcus aureus*



## II. DEHYDRATED CULTURE MEDIA

### LAURYL SULPHATE BROTH

A selective enrichment medium for the detection of coliform bacteria.

Code Number:	<b>LSB20500, 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 121 °C for 15 minutes.

#### Formula in g/l

Tryptose	19,5
Lactose	5,0
Sodium chloride	5,0
Sodium lauryl sulphate	0,1
Buffers	5,4

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*

**Negative control:** *Enterococcus faecalis*

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods

NEW PRODUCT

### LAURYL TRYPTOSE MANNITOL BROTH

A selective medium for the detection and enumeration of coli-forms according to ISO standards.

Code Number:	<b>LTM20500, 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 121 °C for 15 minutes.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Enterococcus faecalis*

**References:** ISO 4831: 1991; ISO 7251: 1993

RENEWED  
PRODUCT

### LEGIONELLA (CYE) AGAR BASE

A selective medium for the isolation of legionellae.

Code Number:	<b>CYE20500, CYE25000</b>
Colour:	<b>Black</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH after autoclaving:	<b>6,9 (approx.) at 25 °C</b>

**Direction:** Suspend 3,6 g in 100 ml or 18 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. In case of 100 ml add aseptically one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-01) or Legionella BCYE Growth Supplement without Cysteine (LWC80005-01). In case of 500 ml add aseptically one vial of Legionella BCYE Growth Supplement with Cysteine (LGF80005-02) or Legionella BCYE Growth Supplement without Cysteine (LWC80005-02). Mix well before pouring.

For the preparation of selective agar in case of 100 ml add 5 ml of dis-tilled 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. Mix well before pouring. In case of 500 ml add 5 ml of 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. Mix well before pouring.

#### Formula in g/l

Yeast extract	10
Charcoal	2
ACES Buffer	10
α-ketoglutarate	1
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Legionella pneumophila*

**Negative control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** Feeley et al. (1979) J. Clin. Micro. 10: 437.  
Dennis et al. (1984) Am. Soc. Microbiol. Pp. 294.



### LETHEEN AGAR BASE

A highly nutritious medium that neutralizes quaternary ammonium compounds, for the sampling of environmental surfaces that have been treated with disinfectants.

Code Number:	LTA20500, LTA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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). Heat with frequent agitation until the medium boils well. The ready 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.

#### Formula in g/l

Peptones	32,2
Sodium chloride	5,0
Sodium bisulphite	0,1
Lecithin	0,7
Agar	20,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**References:** FDA (1992) Microbiological Methods for Cosmetics. Chapter 23.

### LETHEEN BROTH BASE

A highly nutritious medium that neutralizes quaternary ammonium compounds, for the sampling of environmental surfaces that have been treated with disinfectants.

Code Number:	LTB20500, LTB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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 ready 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.

#### Formula in g/l

Peptones	32,2
Sodium chloride	5,0
Sodium bisulphite	0,1
Lecithin	0,7

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**References:** FDA (1992) Microbiological Methods for Cosmetics. Chapter 23.

### LEUCONOSTOC AGAR

A differential medium for the cultivation of *Leuconostoc* spp.

Code Number:	LEA20500, LEA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,0 (approx.) at 25 °C

**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

#### Formula in g/l

Peptones	15,8
Sucrose	150,0
Sodium chloride	1,0
Magnesium sulphate	0,2
Buffers	2,0
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Leuconostoc mesenteroides*

**References:** Atlas and Parks (1993) Handbook of Microbiological Media

### LINDEN-GRAIN BROTH

A sterility test medium for the cultivation of environmental micro-organisms, e.g. from beverage bottles.

Code Number:	LGB20500, LGB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	4,2 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	5,5
Glucose	20,0
Ammonium sulphate	2,0
Magnesium sulphate	1,0
Buffers	1,0

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*, *Saccharomyces cerevisiae*

## II. DEHYDRATED CULTURE MEDIA

### LISTERIA ENRICHMENT BROTH

A selective enrichment broth for the detection of *Listeria monocytogenes*.

Code Number:	LEN20500, LEN25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	26,000
Glucose	2,500
Sodium chloride	5,000
Acridavine	0,015
Cycloheximide	0,050
Nalidixic acid	0,040
Buffers	2,400

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Listeria monocytogenes*

**Negative control:** *Staphylococcus aureus*

**References:** Lovett et al. (1987) J. Food Protection 50: 188.

### LISTERIA ENRICHMENT BROTH, BUFFERED

A selective enrichment broth for the detection of *Listeria monocytogenes*.

Code Number:	LEB20500, LEB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	26,000
Glucose	2,500
Sodium chloride	5,000
Acridavine	0,015
Cycloheximide	0,050
Nalidixic acid	0,040
Buffers	13,500

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Listeria monocytogenes*

**Negative control:** *Staphylococcus aureus*

**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.

Code Number:	LEF20500, LEF25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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. Mix well. Dispense aseptically into sterile final containers.

– **for UVM I Broth:** Listeria Selective Supplement, UVM I (LU180004)

– **for UVM II Broth:** Listeria Selective Supplement, UVM II (LU280004)

– **for Half Fraser Broth:** Listeria Selective Supplement, Half Fraser (LSH80004)

– **for Fraser Broth:** Listeria Selective Supplement, Fraser (LSF80004)

#### Formula in g/l

Proteose peptone	5
Tryptone	5
Beef extract	5
Yeast extract	5
Sodium chloride	20
Lithium chloride	3
Esculin	1
Disodium hydrogen phosphate	10
Potassium dihydrogen phosphate	1

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Listeria monocytogenes*

**Negative control:** *Staphylococcus aureus*

**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*.

Code Number:	LAO20500, LAO25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,0 (approx.) at 25 °C

**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 (LSO80004) reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Listeria monocytogenes*

**Negative control:** *Staphylococcus aureus*

**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*.

Code Number:	<b>LAP20500, 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.

### Formula in g/l

Nutrient substrate (peptones, extracts)	26,00
Mannitol	10,00
Glucose	0,50
Starch soluble	1,00
Lithium chloride	15,00
Sodium chloride	5,00
Ferric ammonium citrate	0,60
Esculin	0,80
Phenol red	0,08
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Listeria monocytogenes*

**Negative control:** *Staphylococcus aureus*

**References:** van Netten et al. (1989) Int. J. Food Micro. 8: 299.

## LIVER BROTH

An enrichment medium for the cultivation of anaerobe bacteria.

Code Number:	<b>LVB20500, 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.

### FORMULA in g/l

Liver extract	100
Peptones	10
Starch soluble	1
Buffers	1

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Clostridium perfringens*

**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.

Code Number:	<b>LOE20500, 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.

### Formula in g/l

Nutrient substrate (peptones, extracts)	16
Glucose	7
Sodium chloride	3

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Corynebacterium diphtheriae*

**References:** Loeffler (1897) Zentralbl. Bakteriol. 2: 102.

## II. DEHYDRATED CULTURE MEDIA

### LOEWENSTEIN-JENSEN MEDIUM BASE

A strongly selective medium for the cultivation of *Mycobacterium tuberculosis* and other *Mycobacterium* spp.

Code Number:	LJM20500, LJM25000
Colour:	Greenish
Appearance:	Homogeneous hygroscopic powder
Final pH:	7,1 (approx.) at 25 °C

**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 uniform and without bubbles. Dispense into sterile test tubes. Coagulate and inspissate in slanted position at 85 °C for 45 min.

#### Formula in g/1600 ml

Potato flour	30,00
Sodium citrate	0,60
Magnesium sulphate	0,24
L-Asparagine	3,60
Malachite green	0,40
Buffer	3,16

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Mycobacterium tuberculosis*

**References:** Jensen (1932) Zentralbl. Bakteriol. Parastenkd. Infektionskr. Hyg. Abt. I Orig. 125: 222.

### LURIA AGAR

A non-selective medium for molecular genetics studies.

Code Number:	LBA20500, LBA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Casein peptone	10
Yeast extract	5
Sodium chloride	10
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** Miller (1972) Experiments in Molecular Genetics.

### LYSINE DECARBOXYLASE BROTH

**See:** Culture Media for Amino Acid Decomposition Studies (page 13)

### LYSINE IRON (LIA) AGAR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of lysine decarboxylate and hydrogen sulphite production.

Code Number:	LIA20500, LIA25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,7 (approx.) at 25 °C

**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 slant with deep butt.

#### Formula in g/l

Peptones	8,00
Glucose	1,00
Sodium thiosulphate	0,04
Ferric citrate	0,50
L-Lysine	10,00
Bromocresol purple	0,02
Agar	13,50

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*, *Proteus mirabilis*, *Citrobacter freundii*

**References:** Edwards and Fife (1961) Appl. Microbiol. 9: 478.

### M17 AGAR

A selective medium for the cultivation and enumeration of lactic streptococci.

Code Number:	M1A20500, M1A25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,9 (approx.) at 25 °C

**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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus agalactiae*

**References:** Terzaghi and Sandine (1975) Applied Microbiol. 29: 807.

### M17 BROTH

A selective medium for the cultivation and enumeration of lactic streptococci.

Code Number:	M1B20500, M1B25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,9 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	17,25
Lactose	5,00
Magnesium sulphate	0,25
Ascorbic acid	0,50
Sodium glycerophosphate	19,00

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus agalactiae*

**References:** Terzaghi and Sandine (1975) Applied Microbiol. 29: 807.

### NEW PRODUCT

### M-FC BROTH BASE

A selective and differential medium for the detection and enumeration of faecal coliforms by membrane filtration.

Code Number:	MFB20500, MFB5000
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.

#### Warning!

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

#### FORMULA in g/l

Peptones	18,0
Bile salts	1,5
Lactose	12,4
Sodium chloride	5,0
Aniline blue	0,1

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Staphylococcus aureus*

**References:** Geldreich et al. (1965) J. Am. Water Works Assoc. 57: 208.

### NEW PRODUCT

### M-FC AGAR BASE

A selective and differential medium for the detection and enumeration of faecal coliforms by membrane filtration.

Code Number:	MFC20500, MFC5000
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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Staphylococcus aureus*

**References:** Geldreich et al. (1965) J. Am. Water Works Assoc. 57: 208.

### M-GREEN AGAR

A selective and differential medium for the detection of fungi.

Code Number:	MGA20500, MGA25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	19,900
Glucose	50,000
Magnesium sulphate	2,000
Diastase	0,050
Thiamine HCl	0,050
Bromocresol green	0,026
Buffers	2,000
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Saccharomyces cerevisiae, Aspergillus niger*

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

## II. DEHYDRATED CULTURE MEDIA

### M-GREEN BROTH

A selective and differential medium for the detection of fungi.

Code Number:	<b>MGB20500, MGB25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2 (approx.) at 25 °C</b>

**Direction:** Suspend 74 g 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.

#### Warning!

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

#### Formula in g/l

Peptones	19,900
Glucose	50,000
Magnesium sulphate	2,000
Diastase	0,050
Thiamine HCl	0,050
Bromocresol green	0,026
Buffers	2,000

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Saccharomyces cerevisiae*, *Aspergillus niger*

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

### MACCONKEY AGAR BASE, SORBITOL

A selective and differential medium for the detection of *Escherichia coli* O157.

Code Number:	<b>MCS20500, MCS25000</b>
Colour:	<b>Pinkish</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 Selective Supplement (CTS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli* O157

**Negative control:** *Escherichia coli*

**References:** ISO 16654: 2001

### MACCONKEY AGAR No.3

A selective and differential medium for the detection of coliform bacteria and enteric pathogens.

Code Number:	<b>MCA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** MacConkey (1900) The Lancet

### MACCONKEY AGAR, PH EUR – USP

A selective and differential medium for the detection of coliform bacteria and enteric pathogens according to PH EUR (Agar Medium H - Harmonised).

Code Number:	<b>MCE20500, MCE25000</b>
Colour:	<b>Pinkish</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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6

### MACCONKEY AGAR WITHOUT CRYSTAL VIOLET

A selective and differential medium for the detection of coliform bacteria and enteric pathogens as well as some *Staphylococcus* spp.

Code Number:	<b>MWC20500, MWC25000</b>
Colour:	<b>Pinkish</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.

#### Formula in g/l

Peptones	20,50
Bile salts No.3	1,50
Lactose	10,00
Sodium chloride	5,00
Neutral red	0,03
Agar	15,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*, *Staphylococcus aureus*

**Negative control:** *Enterococcus faecalis*

**References:** MacConkey (1900) The Lancet

### MACCONKEY BROTH

A differential medium containing neutral red for the detection of coliform bacteria.

Code Number:	<b>MCB20500, MCB25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,1 (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 test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes

#### Formula in g/l

Peptones	20,50
Bile salts No.3	1,50
Lactose	10,00
Sodium chloride	5,00
Neutral red	0,03

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** WHO (1963) Int. Stand. for Drinking Water

### 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.

Code Number:	<b>MWS20500, MWS25000</b>
Colour:	<b>Pinkish</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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** MacConkey (1900) The Lancet

### MACCONKEY BROTH, PH EUR – USP

A differential medium for the detection of coliform bacteria according to PH EUR (Broth Medium G - Harmonised).

Code Number:	<b>MBE20500, 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.

#### Formula in g/l

Gelatin peptone	20,00
Bacteriological bile	5,00
Lactose monohydrate	10,00
Bromocresol purple	0,01

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6



## II. DEHYDRATED CULTURE MEDIA

### MACCONKEY BROTH, PURPLE

A differential medium containing bromocresol purple for the detection of coliform bacteria.

Code Number:	<b>MBP20500, MBP25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,1 (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 test tubes fitted with Durham tube and sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Peptones	20,50
Bile salts No.3	1,50
Lactose	10,00
Sodium chloride	5,00
Bromocresol purple	0,01

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** WHO (1963) Int. Stand. for Drinking Water

### MALONATE AGAR

A differential medium for the differentiation of micro-organisms on the basis of their ability to utilize malonate.

Code Number:	<b>MAA20500, MAA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,7 (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. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterobacter aerogenes*

**Negative control:** *Escherichia coli*

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

### MALACHITE GREEN BROTH BASE

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

Code Number:	<b>MIB20500, 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 one dose (0,5 ml) of Malachite Green Solution, Sterile (MS080030). Mix well and dispense aseptically into sterile final containers.

#### Formula in g/l

Peptones	8,0
Buffer	0,4

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

**References:** Habs and Kirschner (1943) Z. Hyg. 124: 557.

### MALONATE BROTH

A differential medium for the differentiation of micro-organisms on the basis of their ability to utilize malonate.

Code Number:	<b>MAD20500, MAD25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic 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 final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterobacter aerogenes*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>MEA20500, 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 it is necessary to adjust the pH 3,5 (approx.), 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 re-heated.

#### Formula in g/l

Peptones	5
Malt extract	30
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control (at pH=3.5):** *Bacillus cereus*

**References:** Galloway and Burgess (1952) Applied Mycology and Bacteriology, 3<sup>rd</sup> ed.

### MALT EXTRACT BROTH

A selective medium for the cultivation of yeasts and moulds.

Code Number:	<b>MBR20500, 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. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes. If it is necessary to adjust the pH 3.5 (approx.) add aseptically Lactic Acid Solution (LAS80100) to the medium in the necessary quantity.

#### Formula in g/l

Peptones	5
Malt extract	15

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control (at pH=3.5):** *Bacillus cereus*

**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 salmonellae other than *S. typhi*.

Code Number:	<b>MLA20500, 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!

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Formula in g/l

Peptones	22,0000
Mannitol	3,0000
Sodium chloride	4,0000
Sodium thiosulphate	4,0000
Ferric ammonium citrate	1,0000
L-Lysine	5,0000
Brilliant green	0,0125
Violet red	0,0100
Agar	15,0000

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

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*, *Proteus mirabilis*, *Enterococcus faecalis*

**References:** Inoue et al. (1968) Jap. J. Vet. Sci. 30.

### NEW PRODUCT

### MANNITOL MOTILITY NITRATE MEDIUM

A differential medium for the differentiation of micro-organisms, especially enterobacteriaceae, on the basis of mannitol fermentation, motility and nitrate reduction.

Code Number:	<b>MMN20500, MMN25000</b>
Colour:	<b>Beige</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 boil well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### FORMULA in g/l

Peptones	10,00
Mannitol	7,50
Potassium nitrate	1,00
Phenol red	0,04
Agar	3,50

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Acinetobacter anitratum*

**References:** MacFaddin (1980) Biochemical test for the identification of medical bacteria, 2<sup>nd</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### 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).

Code Number:	<b>MSA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*, *Staphylococcus epidermidis*

**Negative control:** *Escherichia coli*

**References:** Chapman (1945) J. Bact. 50: 201.  
European Pharmacopoeia 5.6

### MEAT EXTRACT BROTH

A general purpose medium for the cultivation of micro-organisms.

Code Number:	<b>MEX20500, 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.

#### Formula in g/l

Peptones	11
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** APHA (1980) Standard Methods for the Examination of Water and Wastewater

### MAXIMUM RECOVERY DILUENT

A protective and isotonic diluent for maximum recovery of micro-organisms.

Code Number:	<b>MRD20500, 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.

#### Formula in g/l

Peptones	1,0
Sodium chloride	8,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**References:** Straker and Stokes (1957) J. Appl. Bact. 26: 493.

### MEMBRAN LAURYL SULPHATE (MLSb) BROTH

A selective medium for the enumeration of coliform micro-organisms and *Escherichia coli*.

Code Number:	<b>MLS20500, MLS25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,4 (approx.) at 25 °C</b>

**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!

#### Formula in g/l

Peptone	44,8
Lactose	30,0
Sodium lauryl sulphate	1,0
Buffers	0,2

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Bacillus subtilis*

**References:** Burnhan (1967) Proc. Soc. Wat. Treat. Exam. 16: 40.

### MOTILITY AGAR

A semi-solid differential medium for the detection of motility of Gram-negative enteric bacilli.

Code Number:	<b>MOA20500, MOA25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,4 (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.

#### Formula in g/l

Peptones	13,00
Sodium chloride	5,00
2,3,5-Triphenyltetrazolium chloride	0,05
Agar	4,00

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Shigella flexneri*

**References:** Tittsler and Sandholzer (1936) J. Bacteriol. 31: 575.

NEW PRODUCT

### MOTILITY INDOLE LYSINE (MIL) MEDIUM

A differential medium for the differentiation of micro-organisms, especially enterobacteriaceae, on the basis of motility, indole production, lysine deaminase and lysine decarboxylase reactions.

Code Number:	<b>MIL20500, MIL25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,6 (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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*, *Salmonella typhimurium*, *Shigella sonnei*

**References:** Reller and Mirrett (1975) J. Clin. Microbiol. 2: 247.

### MOTILITY INDOLE UREA (MIU) MEDIUM

A differential medium for the differentiation of micro-organisms, especially the Enterobacteriaceae, on the basis of the motility, indole production and urease activity.

Code Number:	<b>MIU20500-M</b>
Packaging:	<b>380 g medium base + 120 g urea</b>
Appearance – agar base:	<b>Pinkish, homogeneous, hygroscopic powder</b>
Appearance – urea:	<b>White pellet</b>
pH before autoclaving:	<b>6,4 - 6,6 at 25 °C</b>
pH after autoclaving:	<b>6,6 - 7,0 at 25 °C</b>

**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. Dispense into test tubes and sterilise by autoclaving at 115 °C for 15 minutes.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Formula of ready medium g/l

Peptones	11,000
Sodium chloride	5,000
Urea	20,000
Phenol red	0,012
Buffers	3,000
Agar	3,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Proteus mirabilis*, *Escherichia coli*, *Shigella sonnei*

**References:** Roland et al. (1947) Ann. Inst. Pasteur 73: 914.  
Christensen (1946) J. Bact. 52: 461.

## II. DEHYDRATED CULTURE MEDIA

### M-PA-B AGAR

A selective and differential medium for the selective recovery and enumeration of *Pseudomonas aeruginosa* from strongly contaminated samples.

Code Number:	<b>MPB20500, 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.

#### Formula in g/l

Yeast extract	2,000
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
L-Lysine	5,000
Sulphapyridine	0,170
Cycloheximide	0,150
Nalidixic acid	0,037
Kanamycin	0,008
Phenol red	0,080
Agar	15,500

**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 prepared medium protected from light at 2-8 °C, but better to use it freshly.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>MPA20500, MPA25000</b>
Colour:	<b>Pinkish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,2 (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. Cool quickly! Mix well before pouring.

#### Warning!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

#### Formula in g/l

Yeast extract	2,000
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
L-Lysine	5,000
Nalidixic acid	0,037
Kanamycin	0,008
Phenol red	0,080
Agar	14,800

**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 prepared medium protected from light at 2-8 °C, but better to use it freshly.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

**References:** Levin and Cabelli (1972) Appl. Microbiol. 24: 864.

### MRS AGAR BASE

A low selective medium for the isolation and cultivation of *Lactobacillus* spp.

Code Number:	<b>MRA20500, MRA25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,2 (approx.) at 25 °C</b>

**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.

#### 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
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**Negative control:** *Staphylococcus aureus*

**References:** DeMan, Rogosa and Sharpe (1960) J. Appl. Bact. 23: 30.

### MRS BROTH BASE

A low selective medium for the cultivation of *Lactobacillus* spp.

Code Number:	<b>MRB20500, MRB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,2 (approx.) at 25 °C</b>

**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.

#### Warning!

To ensure the homogeneity shake well the supplement before 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**Negative control:** *Staphylococcus aureus*

**References:** DeMan, Rogosa and Sharpe (1960) J. Appl. Bact. 23: 30.

### MRSA SCREEN AGAR BASE

A selective medium for the presumptive identification of MRSA.

Code Number:	<b>MRS20500, 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.

#### Formula in g/l

Peptones	19,5
Starch soluble	1,5
Sodium chloride	40,0
Agar	17,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *MRSA*

**Negative control:** *MSSA*

### MRVP BROTH

A differential medium for the differentiation of bacteria on the basis of the methyl red and Voges-Proskauer reactions.

Code Number:	<b>MVP20500, 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!

#### Formula in g/l

Peptones	7
Glucose	5
Buffers	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

##### Positive control:

**Methyl red:** *Escherichia coli*

**Voges-Proskauer:** *Enterobacter aerogenes*

##### Negative control:

**Methyl red:** *Enterobacter aerogenes*

**Voges-Proskauer:** *Escherichia coli*

**References:** Voges and Proskauer (1898) Z. Hyg. 28: 20.

### MUELLER-HINTON II AGAR

An antimicrobial susceptibility testing medium which fits to the requirements of NCCLS. Medium has extremely low concentrations of thymine and thymidine as well as appropriate levels of calcium and magnesium ions.

Code Number:	<b>MHT20500, MHT25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,2-7,4 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.

#### Formula in g/l

Peptones	19,5
Starch soluble	1,5
Agar	17,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus, Enterococcus faecalis*

**References:** Mueller and Hinton (1941) Proc. Soc. Exp. Biol. Med. 48: 330.

## II. DEHYDRATED CULTURE MEDIA

### MUELLER-HINTON AGAR, FUNGI

A standard medium for the antimycotical susceptibility testing.

Code Number:	<b>MHF20500, 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.

#### Formula in g/l

Peptones	19,5000
Glucose	20,0000
Starch soluble	1,5000
Methylene blue	0,0005
Agar	17,0000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**References:** Mueller-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.

Code Number:	<b>MHC20500, 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 with frequent agitation until the starch dissolve completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### FORMULA in g/l

Peptones	19,5
Starch soluble	1,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus, Enterococcus faecalis*

**References:** Mueller and Hinton (1941) Proc. Soc. Exp. Biol. Med. 48: 330.

### MYCOPLASMA (PPLO) AGAR BASE

A highly nutritious medium for the preparation of media for cultivation of mycoplasmae.

Code Number:	<b>MYA20500, 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.

#### Formula in g/l

Nutrient substrate (heart infusion, peptones)	16
Sodium chloride	5
Agar	14

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Mycoplasma pneumoniae*

**References:** Morton et al. (1951) Am. J. Syphil. Gonorrh. Vener. Dis. 35: 361.

### MYCOPLASMA (PPLO) BROTH BASE

A highly nutritious medium for the preparation of media for cultivation of mycoplasmae.

Code Number:	<b>MYB20500, 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. Dispense aseptically into sterile final containers.

#### Formula in g/l

Nutrient substrate (heart infusion, peptones)	16
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Mycoplasma pneumoniae*

**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 the activity of the antimicrobial agents according to PH EUR.

Code Number:	<b>NSE20500, 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 one litre of distilled water. Add 30 ml of TWEEN 80 Supplement (TWS80500). Mix well and keep the suspension at about 50 °C until the lecithin completely dissolved (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.

#### Formula in g/l

Peptone	1,0
Sodium chloride	4,3
Histidin HCl	1,0
Lecithin	3,0
Disodium hydrogen phosphate	7,2
Potassium dihydrogen phosphate	3,6

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

### NUTRIENT AGAR

A general purpose medium for the cultivation of non-fastidious micro-organisms.

Code Number:	<b>NUA20500, 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.

#### Formula in g/l

Peptones	11
Sodium chloride	5
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli, Staphylococcus aureus*

**References:** APHA (1917) Standard methods of water analysis, 3<sup>rd</sup> ed.

### NITRATE BROTH

A differential medium for the detection of nitrate reduction.

Code Number:	<b>NIT20500, 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.

#### Formula in g/l

Peptones	10
Potassium nitrate	2

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa, Escherichia coli*

**Negative control:** *Enterococcus faecalis*

**References:** MacFaddin (1980) Biochemical Tests for the Identification of Medical Bacteria, 2<sup>nd</sup> ed.

### NUTRIENT AGAR, DEV

A general purpose medium for determining total microbial count of water according to DEV.

Code Number:	<b>NUD20500, 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.

#### Formula in g/l

Meat peptone	10
Meat extract	10
Sodium chloride	5
Agar	18

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli, Staphylococcus aureus*

**References:** DEV

## II. DEHYDRATED CULTURE MEDIA

### NUTRIENT BROTH

A general purpose medium for the cultivation of non-fastidious micro-organisms.

Code Number:	<b>NUB20500, 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.

#### Formula in g/l

Peptones	11
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**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.

Code Number:	<b>NUN20500, 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.

#### Formula in g/l

Peptones	20
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** British Pharmacopoeia (1980)

### NUTRIENT BROTH, DEV

A general purpose medium for determining total microbial count of water according to the DEV.

Code Number:	<b>NBD20500, 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.

#### Formula in g/l

Peptones	10
Meat extract	10
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** DEV

### NUTRIENT GELATIN MEDIUM

A differential medium for determining of gelatinase production by proteolytic micro-organisms.

Code Number:	<b>GEM20500, 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 dissolved completely. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Peptones	8
Gelatin	120

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

**References:** APHA (1960) Standard Methods for the Examination of Water and Sewage



### NUTRIENT YEAST GLUCOSE AGAR

A general purpose medium for the cultivation of micro-organisms.

Code Number:	<b>NYG20500, 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.

#### Formula in g/l

Peptones	7
Yeast extract	5
Glucose	1
Sodium chloride	4
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*, *Saccharomyces cerevisiae*

**References:** Turner et al. (1984)

RENEWED  
PRODUCT

### ORANGE SERUM AGAR BASE

A selective medium for the cultivation and enumeration of micro-organisms in citrus juice concentrates.

Code Number:	<b>OSA20400, OSA24000</b>
Packaging:	<b>400 g agar base + 2 litre sterile, filtered, pH adjusted orange juice</b>
Appearance – agar base:	<b>Yellowish, homogeneous hygroscopic powder</b>
Appearance – orange juice:	<b>Orange coloured liquid</b>
pH before autoclaving:	<b>5,5 (approx.) at 25 °C</b>

**Direction:** Suspend 20 g 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.

#### Formula in g/l

Peptones	18
Glucose	4
Buffers	3
Agar	15

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

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*, *Saccharomyces cerevisiae*

**References:** APHA (1976) Compendium of Methods for Microbiological Examination of Foods, 4<sup>th</sup> ed.

RENEWED  
PRODUCT

### ORANGE SERUM BROTH BASE

A selective medium for the cultivation of micro-organisms in citrus juice concentrates.

Code Number:	<b>OSB20250, OSB22500</b>
Packaging:	<b>250 g broth base + 2 litre sterile, filtered, pH adjusted orange juice</b>
Appearance – broth base:	<b>Yellowish, homogeneous hygro-scopic powder</b>
Appearance – orange juice:	<b>Orange coloured liquid</b>
pH before autoclaving:	<b>5,5 (approx.) at 25 °C</b>

**Direction:** Suspend 12,5 g 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 autoclav-ing at 115 °C for 15 minutes.

#### Warning!

The orange juice is heat sensitive.  
No further sterilisation is necessary or desirable.  
For sufficient accuracy it is enough to apply the 100 ml scale on the bottle of the orange juice.

#### Formula in g/l

Peptones	18
Glucose	4
Buffers	3

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

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*, *Saccharomyces cerevisiae*

**References:** APHA (1976) 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 moulds and yeasts.

Code Number:	<b>OGY20500, 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.

#### Formula in g/l

Yeast extract	5,0000
Glucose	20,0000
Vitamin H	0,0001
Agar	13,0000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Aspergillus niger*, *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**References:** Mossel et al. (1970) Appl. Bact. 35: 454.

## II. DEHYDRATED CULTURE MEDIA

### ÖNÖZ AGAR

A selective and differential medium for the isolation of enteric micro-organisms, especially *Salmonella* and some *Shigella* spp.

Code Number:	<b>ON020500, ON025000</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. Mix well before pouring. Cool quickly!

#### Warning!

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

#### Formula in g/l

Peptones	16,50000
Bile salts	3,82500
Sucrose	13,00000
Lactose	11,50000
Sodium citrate	9,30000
Sodium thiosulphate	4,25000
Ferric citrate	0,50000
Magnesium sulphate	0,40000
L-Phenylalanine	5,00000
Metachrome yellow	0,47000
Aniline blue	0,25000
Neutral red	0,02200
Brilliant green	0,00166
Buffers	1,00000
Agar	15,00000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*, *Shigella sonnei*, *Proteus mirabilis*  
**Negative control:** *Enterococcus faecalis*

**References:** Önöz (1978) Zbl. Bakt. Hyg. A240: 16.

### PEPTONE WATER

A liquid medium base for carbohydrate fermentation studies.

Code Number:	<b>PEW20500, 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. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add the filter sterilised indicator and solution of the sugar (10 g/l) to be examined to the medium. Dispense aseptically into sterile test tubes.

#### Formula in g/l

Peptones	10
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

**Quality Control:** Use micro-organisms, which have known positive or negative reactions with investigated sugars.

**References:** Cruikshank (1968) Med. Microbiology 11<sup>th</sup> ed.

### PEPTONE WATER, ALKALINE

A non selective medium for the enrichment of *Vibrio* spp.

Code Number:	<b>PEW20500-22, 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.

#### Formula in g/l

Peptones	10,00
Sodium chloride	10,00

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Vibrio cholerae*

**References:** Cruikshank (1968) Med. Microbiology 11<sup>th</sup> ed.

### PEPTONE WATER WITH BROMOCRESOL PURPLE

A basal medium for carbohydrate fermentation studies.

Code Number:	<b>PAW20500-00, PAW25000-00</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 final containers and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and add the filter sterilised solution of the sugar (10 g/l) to be examined to the medium.

#### Formula in g/l

Peptones	10,00
Sodium chloride	5,00
Bromocresol purple	0,03

**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 prepared medium protected from light at room temperature.

**Quality Control:** Use micro-organisms, which have known positive and negative reactions with investigated sugars.

**References:** Cruikshank (1968) Med. Microbiology 11<sup>th</sup> ed.

### PEPTONE WATER, BUFFERED

A pre-enrichment medium for the isolation of *Salmonella* spp.

Code Number:	<b>PWB20500, 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.

#### Formula in g/l

Peptones	10
Sodium chloride	5
Buffers	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods

### PEPTONE WATER, DOUBLE BUFFERED

A pre-enrichment medium for the isolation of *Salmonella* spp.

Code Number:	<b>PWD20500, 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.

#### Formula in g/l

Peptones	10
Sodium chloride	5
Buffers	10

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**References:** ISO 6579: 1993

### PEPTONE WATER, BUFFERED, PH EUR - USP

An enrichment medium for the test of microbial contamination according to PH EUR (Buffered Sodium Chloride Peptone Solution pH 7.0 - Harmonised).

Code Number:	<b>PBE20500, 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.

#### Formula in g/l

Peptone	1,0
Sodium chloride	4,3
Potassium dihydrogen phosphate	3,6
Disodium hydrogen phosphate	7,1

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella typhimurium*

**References:** European Pharmacopoeia 5.6

### PERFRINGENS (OPSP) AGAR BASE

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

Code Number:	<b>POB20500, POB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,3 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	33,5
Sodium metabisulphite	1,0
Ferric ammonium citrate	1,0
Buffers	1,5
Agar	10,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** Harmon et al. (1971) J. Appl. Microbiol. 22: 688.  
Sahidi and Fergusson (1971) J. Appl. Microbiol. 21: 500.

## II. DEHYDRATED CULTURE MEDIA

### PERFRINGENS (TSC+SFP) AGAR BASE

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

Code Number:	PAB20500, PAB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,6 (approx.) at 20°C

#### Direction for TSC/SFP Agar:

Suspend 23,5 g in 475 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 one vial of Perfringens Selective Supplement, SFP (PFS80004) both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Direction for Egg Yolk Free TSC/SFP Agar:

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 of Perfringens Selective Supplement, TSC (PSS80004) or Perfringens Selective Supplement, SFP (PFS80004) both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Formula in g/l

Peptones	31
Sodium metabisulphite	1
Ferric ammonium citrate	1
Agar	14

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** Harmon et al. (1971) J. Appl. Microbiol. 22: 688.

### PharmaBio® BAIRD-PARKER AGAR BASE

Code Number: **PBPA20500, PBPA25000**

See: Baird-Parker Agar Base, PH EUR

### PharmaBio® KING B AGAR BASE

Code Number: **PKAB20500, PKAB25000**

See: King B Agar Base, USP

### PharmaBio® BRILLIANT GREEN (BPLS) AGAR

Code Number: **PBPE20500, PBPE25000**

See: Brilliant Green (BPLS) Agar, PH EUR

### PharmaBio® LACTOSE BROTH

Code Number: **PLAB20500, PLAB25000**

See: Lactose Broth, PH EUR

### PharmaBio® CASEIN PEPTONE LECITHIN POLYSORBATE BROTH BASE

Code Number: **PCLP20500, PCLP25000**

See: Casein Peptone Lecithin Polysorbate Broth Base, USP

### PharmaBio® LACTOSE SULPHITE BROTH BASE

Code Number: **PLSU20500, PLSU25000**

See: Lactose Sulphite Broth Base, PH EUR

### PharmaBio® CETRIMIDE AGAR BASE

Code Number: **PCAB20500, PCAB25000**

See: Cetrimide Agar Base, PH EUR - USP

### PharmaBio® MACCONKEY AGAR

Code Number: **PMCE20500, PMCE25000**

See: MacConkey Agar, PH EUR - USP

### PharmaBio® COLUMBIA AGAR

Code Number: **PCLE20500, PCLE25000**

See: Columbia Agar, PH EUR - USP

### PharmaBio® MACCONKEY BROTH

Code Number: **PMBE20500, PMBE25000**

See: MacConkey Broth, PH EUR - USP

### PharmaBio® DEOXYCHOLATE CITRATE AGAR

Code Number: **PDCE20500, PDCE25000**

See: Deoxycholate Citrate Agar, PH EUR

### PharmaBio® MANNITOL SALT AGAR

Code Number: **PMSA20500, PMSA25000**

See: Mannitol Salt Agar, PH EUR - USP

### PharmaBio® EE BROTH

Code Number: **PEEB20500, PEEB25000**

See: EE Broth, PH EUR - USP

### PharmaBio® NEUTRALISING FLUID BASE

Code Number: **PNSE20500, PNSE25000**

See: Neutralising Fluid Base, PH EUR

### PharmaBio® EOSIN METHYLENE BLUE AGAR

Code Number: **PEMB20500, PEMB25000**

See: Eosin Methylene Blue Agar, USP

### PharmaBio® PEPTON WATER, BUFFERED

Code Number: **PPBE20500, PPBE25000**

See: Pepton Water, Buffered, PH EUR - USP

### PharmaBio® KING A AGAR BASE

Code Number: **PKAA20500, PKAA25000**

See: King A Agar Base, USP

### PharmaBio® POTATO DEXTROSE AGAR

Code Number: **PPDA20500, PPDA25000**

See: Potato Dextrose Agar, PH EUR - USP

## II. DEHYDRATED CULTURE MEDIA

### PharmaBio® R2A AGAR

Code Number: PR2A20500, PR2A25000

See: R2A Agar, PH EUR

### PharmaBio® THIOGLYCOLLATE MEDIUM

Code Number: PTHM20500, PTHM25000

See: Thioglycollate Medium, PH EUR

### PharmaBio® RAPPAPORT-VASSILIADIS BROTH BASE

Code Number: PRVB20500, PRVB25000

See: Rappaport-Vassiliadis Broth Base, PH EUR - USP

### PharmaBio® TRYPTONE SOYA AGAR

Code Number: PTSE20500, PTSE25000

See: Tryptone Soya Agar, PH EUR - USP

### PharmaBio® REINFORCED CLOSTRIDIAL MEDIUM

Code Number: PRCM20500, PRCM25000

See: Reinforced Clostridial (RCM-DRCM) Medium Base, PH EUR - USP

### PharmaBio® TRYPTONE SOYA BROTH

Code Number: PTSB20500, PTSB25000

See: Tryptone Soya Broth, PH EUR - USP

### PharmaBio® SABOURAUD CHLORAMPHENICOL AGAR

Code Number: PSCE20500, PSCE25000

See: Sabouraud Chloramphenicol Agar, PH EUR

### PharmaBio® TSI AGAR

Code Number: PTSI20500, PTSI25000

See: Triple Sugar Iron (TSI) Agar, PH EUR

### PharmaBio® SABOURAUD DEXTROSE (4%) AGAR

Code Number: PSDA20500, PSDA25000

See: Sabouraud Dextrose (4%) Agar, PH EUR - USP

### PharmaBio® VIOLET RED BILE GLUCOSE AGAR, PH EUR

Code Number: PVBE20500, PVBE25000

See: Violet Red Bile Glucose Agar, PH EUR

### PharmaBio® SABOURAUD DEXTROSE BROTH

Code Number: PSDB20500, PSDB25000

See: Sabouraud Dextrose Broth, PH EUR - USP

### PharmaBio® VIOLET RED BILE GLUCOSE AGAR, PH EUR - USP

Code Number: PVBH20500, PVBH25000

See: Violet Red Bile Glucose Agar, PH EUR - USP

### PharmaBio® SELENITE CYSTINE BROTH BASE

Code Number: PSCB20500, PSCB25000

See: Selenite Cystine Broth Base, USP

### PharmaBio® VOGEL-JOHNSON AGAR BASE

Code Number: PVJA20500, PVJA25000

See: Vogel-Johnson Agar Base, USP

### PharmaBio® TETRATHIONATE BROTH BASE, PH EUR

Code Number: PTTE20500, PTTE25000

See: Tetrathionate Broth Base, PH EUR

### PharmaBio® XLD AGAR

Code Number: PXLD20500, PXLD25000

See: XLD Agar, PH EUR - USP

### PharmaBio® TETRATHIONATE BROTH BASE, USP

Code Number: PTTB20500, PTTB25000

See: Tetrathionate Broth Base, USP

### PHENOL RED AGAR BASE

A solid medium base for the carbohydrate fermentation studies.

Code Number:	<b>PHA20500, 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 the filter sterilised sugar (10 g/l) solution 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.

#### Formula in g/l

Peptones	10,00
Sodium chloride	5,00
Phenol red	0,02
Agar	15,00

**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 prepared medium protected from light at room temperature.

**Quality Control:** Use micro-organisms, which have known positive or negative reactions with investigated sugars.

**References:** Ewing (1986) Edwards and Ewing's Identification of Enterobacteriaceae, 4<sup>th</sup> ed.

### PHENOL RED BROTH BASE

A liquid medium base for the carbohydrate fermentation studies.

Code Number:	<b>PHB20500, 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. 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.

#### Formula in g/l

Peptones	10,00
Sodium chloride	5,00
Phenol red	0,02

**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 prepared medium protected from light at room temperature.

**Quality Control:** Use micro-organisms, which have known positive or negative reactions with investigated sugars.

**References:** Ewing (1986) Edwards and Ewing's Identification of Enterobacteriaceae, 4<sup>th</sup> ed.

### PHENYLALANINE AGAR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of phenylalanine deamination.

Code Number:	<b>PNA20500, 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.

#### Formula in g/l

L-Phenylalanine	1
Yeast extract	3
Sodium chloride	5
Buffers	2
Agar	15

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Proteus mirabilis*

**Negative control:** *Escherichia coli*

**Remarks:** Use Phenylalanine Deaminase Reagent (PAD60200) to make the positive reaction visible.

**References:** Henrikson (1950) J. Bacteriol. 60: 225.

### PHENYLALANINE RHAMNOSE (FARH) AGAR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of phenylalanine deamination and rhamnose fermentation.

Code Number:	<b>PRH20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**References:** Henrikson (1950) J. Bacteriol. 60: 225.

## II. DEHYDRATED CULTURE MEDIA

### PHENYLETHYL ALCOHOL (PEA) AGAR BASE

A selective medium for the for the isolation of Gram-positive aerobe and anaerobe bacteria.

Code Number:	<b>PED20500, 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 blood. Mix well before pouring.

#### Formula in g/l

Peptones	24,500
Sodium chloride	5,000
Anaerobe vitamins	0,415
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes*, *Bacteriodes fragilis*

**Negative control:** *Proteus mirabilis*

**References:** Brewer and Lilley (1953) J. Am. Pharm. Assoc. 42: 6.

### PIKE BROTH

A selective medium for the cultivation of enterococci.

Code Number:	<b>PBB20500, PBB25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,4 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	30,700
Glucose	0,200
Sodium azide	0,065
Violet red	0,002

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**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.

Code Number:	<b>PCA20500, 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.

#### Formula in g/l

Tryptone	5,0
Yeast extract	2,5
Glucose	1,0
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** APHA (1978) Standard Methods for the Examination of Dairy Products

### PLATE COUNT AGAR No.2

A standard medium for the enumeration of total viable micro-organisms.

Code Number:	<b>PAT20500, 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.

#### Formula in g/l

Tryptone	5
Beef extract	3
Glucose	1
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** APHA (1980) 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 the ISO 6222.

Code Number:	PCW20500, PCW25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	6
Yeast extract	3
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** ISO 6222: 1999

### PLATE COUNT SKIM MILK AGAR

A non-selective medium for the enumeration of viable micro-organisms in milk and dairy products.

Code Number:	PCS20500, PCS25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,0 (approx.) at 25 °C

**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.

#### Formula in g/l

Tryptone	5,0
Yeast extract	2,5
Glucose monohydrate	1,0
Skim milk powder	1,0
Agar	13,5

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** APHA (1985) Standard Methods for the Examination of Dairy Products, 15<sup>th</sup> ed. ISO 6610: 2002

### PLATE COUNT BROTH

A non-selective medium for the enumeration of total viable micro-organisms with MPN procedure.

Code Number:	PCB20500, PCB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,0 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	8
Glucose	1

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

### 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).

Code Number:	PDA20500, PDA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	5,6 (approx.) at 25 °C

**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 it is necessary to adjust the pH 3.5 (approx.), 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!

The medium is heat sensitive.

No further sterilisation is necessary or desirable.

Once acidified with lactic acid, the medium should not be re-heated.

#### Formula in g/l

Dextrose	20
Potato extract	4
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control (at pH=3.5):** *Bacillus cereus*

**References:** European Pharmacopoeia 5.6

## II. DEHYDRATED CULTURE MEDIA

### POTATO DEXTROSE BROTH

A selective medium for the cultivation of yeasts and moulds.

Code Number:	<b>PDB20500, PDB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic 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.

#### Formula in g/l

Dextrose	20
Potato extract	4

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Aspergillus niger*, *Candida albicans*

**References:** APHA (2001) Compendium of Methods for the Microbiological Examination of Foods, 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.

Code Number:	<b>BLA20500, 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.

#### Formula in g/l

Peptones	20,000
Lactose	10,000
Sodium tiosulphate	0,200
Ferrous citrate	0,200
L-Cystine	0,100
Esculin	0,500
Bromocresol purple	0,025
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella typhimurium*, *Enterococcus faecalis*

### PSEUDOMONAS ISOLATION AGAR BASE

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

Code Number:	<b>PIA20500, 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 Glyc-erol Supplement (GLC80100) and heat with frequent agitation until the medium boils well. Sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Peptones	20,600
Potassium sulphate	10,000
Magnesium chloride	1,400
Irgasan	0,025
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Pseudomonas aeruginosa*

**Negative control:** *Escherichia coli*

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

### R2A AGAR, PH EUR

A non-selective medium for the bacteriological examination of water according to PH EUR (Agar Medium S).

Code Number:	<b>R2A20500, 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.

#### 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
Dipotassium hydrogen phosphate	0,300
Agar	14,900

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

### R2A BROTH

A non-selective medium for the bacteriological examination of water.

Code Number:	<b>R2B20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli, Staphylococcus aureus*

**References:** Stark and McCoy (1938) Zentralb. Bakt. Parasit. Infekt. Hyg. Abt. 2. 98: 201.

### 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).

Code Number:	<b>RVB20500, RVB25000</b>
Colour:	<b>Greenish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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.

#### Formula in g/l

Soya peptone	4,500
Sodium chloride	8,000
Malachite green	0,036
Dipotassium phosphate	0,400
Potassium dihydrogen phosphate	0,600

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*

**References:** Rappaport et al. (1956) J. Clin. Path. 9: 261.  
European Pharmacopoeia 5.6

### RAPPAPORT-VASSILIADIS (MSRV) MEDIUM BASE

A semi-solid selective medium for the detection of motile salmonellae.

Code Number:	<b>MSR20500, MSR25000</b>
Colour:	<b>Greenish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>5,5 (approx.) at 25 °C</b>

**Direction:** Fill up 10 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.

#### Formula in g/l

Peptones	9,180
Sodium chloride	7,340
Malachite green	0,037
Buffers	1,470
Agar	3,000

**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 prepared medium protected from light at 2-8 °C

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Pseudomonas aeruginosa*

**References:** De Smedt et al. (1986) J. Food Prot. 48: 510

### REINFORCED CLOSTRIDIAL (RCM) AGAR

A non-selective medium for the cultivation and enumeration of anaerobes, especially *Clostridium* spp.

Code Number:	<b>RCA20500, 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.

#### Formula in g/l

Peptones	23,0
Glucose	5,0
Starch soluble	1,0
Sodium chloride	5,0
Sodium acetate	3,0
L-Cysteine	0,5
Agar	13,5

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**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).

Code Number:	<b>RCM20500, 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 final containers.

#### Formula in g/l

Peptones	10,0
Beef extract	10,0
Yeast extract	3,0
Glucose monohydrate	5,0
Starch soluble	1,0
Sodium chloride	5,0
Sodium acetate	3,0
L-Cysteine	0,5
Agar	0,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *lostridium perfringens*

**References:** European Pharmacopoeia 5.6

Hirsh and Grinstead (1954) J. Dairy Res. 21: 101.

Gibbs and Freame (1965) J. Appl. Bact. 28: 95.

#### Formula in g/l

Peptones	23,000
Glucose	5,000
Starch soluble	1,000
Sodium chloride	5,000
Sodium acetate	3,000
Ferric ammonium citrate	0,500
Sodium metabisulphite	0,500
L-Cysteine	0,500
Resazurin	0,002

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** Gibbs and Freame (1965) J. Appl. Bact. 28: 95.

### RINGER SOLUTION, ¼ STRENGTH

A sterile isotonic diluent for bacteriological specimens.

Code Number:	<b>RIS20500, 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.

#### Formula in g/l

Sodium chloride	2,25
Potassium chloride	0,10
Calcium chloride	0,10
Sodium bicarbonate	0,05

**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 prepared medium protected from light at room temperature.

**References:** Davis (1956) Lab. Cont. of Dairy Plant.

### REINFORCED CLOSTRIDIAL DIFFERENTIAL BROTH

A non-selective medium for the cultivation and enumeration of anaerobes, especially *Clostridium* spp. by the MPN method.

Code Number:	<b>RCD20500, 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.



### ROGOSA AGAR BASE

A selective medium for the isolation and enumeration of *Lactobacillus* spp.

Code Number:	<b>ROA20500</b>
Packaging:	<b>500 g agar base + 1 litre salt solution</b>
Appearance – agar base:	<b>Homogeneous hygroscopic powder</b>
Appearance – salt solution:	<b>Colourless solution</b>
pH before autoclaving:	<b>5,7 (approx.) at 25 °C</b>

**Direction:** Fill up 100 ml of Rogosa Salt Solution to one litre with distilled water. Suspend 50 g of dehydrated medium and heat with frequent agitation until the medium boils well (2-3 min.). If it is necessary to adjust the pH 5.4 (approx.) cool to 50 °C and add glacial acetic acid to the medium in the necessary quantity (1,3 ml approx.). Mix well before pour-ing.

### Warning!

The medium is heat sensitive.  
No further sterilisation is necessary or desirable.  
Once acidified with glacial acetic acid, the medium should not be re-heated.

#### Formula for one litre of the complete medium

Peptones	15,200
Glucose	20,000
Sodium acetate	17,000
Ammonium citrate	2,000
Magnesium sulphate	0,575
Manganese sulphate	0,120
Ferrous sulphate	0,034
TWEEN 80	1,000
Buffers	6,000
Agar	20,000

**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 pre-prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**Negative control:** *Staphylococcus aureus*

**References:** Rogosa et al. (1951) J. Appl. Bact. 62: 132.

### ROSE BENGAL DICHLORAN AGAR

A selective medium for the enumeration of yeasts and moulds. The dichloran enhance the selectivity of medium.

Code Number:	RBD20500, RBD25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**Direction:** Suspend 32 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.

#### Formula in g/l

Peptones	5,400
Glucose	10,000
Magnesium sulphate	0,500
Chloramphenicol	0,100
Dichloran	0,002
Rose bengal	0,050
Buffers	1,000
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**References:** APHA (1978) Standard Method for the Examination of Dairy Products, 14<sup>th</sup> ed.

### ROSE BENGAL CHLORAMPHENICOL AGAR

A selective medium for the enumeration of yeasts and moulds.

Code Number:	RBA20500, RBA25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**Direction:** Suspend 32 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.

#### Formula in g/l

Peptones	5,40
Glucose	10,00
Magnesium sulphate	0,50
Chloramphenicol	0,10
Rose bengal	0,05
Buffers	1,00
Agar	15,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**References:** APHA (1978) Standard Method for the Examination of Dairy Products, 14<sup>th</sup> ed.

### RPMI MOPS AGAR BASE

A standard medium for the antimycotical susceptibility testing with Etest.

Code Number:	RGM20500, RGM25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,0 (approx.) at 25 °C

**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. Heat gently 100 ml of RPMI MOPS Solution, Sterile (RGS80100) to 50 °C and add aseptically to the agar base. Mix well before pouring.

#### Formula in g/l

Glucose	20
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**References:** www.abbiodisk.com

## II. DEHYDRATED CULTURE MEDIA

### RUSSEL AGAR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of carbohydrate fermentation and production of hydrogen sulphide.

Code Number:	<b>RUS20500, 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 slant with deep butt.

#### Formula in g/l

Peptones	8,4
Lactose	10,0
Sucrose	1,0
Glucose	0,5
Sodium chloride	4,0
Sodium tiosulphate	0,5
Ferrous sulphate	0,5
Andrade indicator	0,1
Buffers	1,0
Agar	12,0

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*,  
*Pseudomonas aeruginosa*, *Proteus mirabilis*

**References:** Russel and Krumwiede (1935)

### SABOURAUD DEXTROSE (2%) AGAR

A non-selective medium for the cultivation of pathogenic and non-pathogenic fungi, particularly dermatophytes.

Code Number:	<b>SDD20500, 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.

#### Formula in g/l

Peptones	10
Glucose	20
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*, *Trichophyton mentagrophytes*

**References:** Emmons et al. (1977) Medical Mycology

### SABOURAUD DEXTROSE (1%) MALTOS (1%) AGAR

A selective medium for the cultivation moulds and yeasts.

Code Number:	<b>SDM20500, 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.

#### Formula in g/l

Peptones	10
Glucose	10
Maltose	10
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*, *Trichophyton mentagrophytes*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD DEXTROSE (4%) AGAR, PH EUR - USP

A selective medium for the cultivation and isolation of pathogenic and non pathogenic yeasts and fungi, particularly dermatophytes according to PH EUR (Sabouraud Dextrose Agar - Harmonised).

Code Number:	<b>SDA20500, SDA25000</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.

#### Formula in g/l

Casein peptone	5
Meat peptone	5
Glucose	40
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*, *Trichophyton mentagrophytes*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.  
European Pharmacopoeia 5.6

### SABOURAUD MALTOSE (4%) AGAR

A selective medium for the isolation of dermatophytes and other yeasts and fungi.

Code Number:	<b>SMA20500, 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.

#### Formula in g/l

Peptones	10
Maltose	40
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans, Trichophyton mentagrophytes*

**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).

Code Number:	<b>SCE20500, 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.

#### Formula in g/l

Peptones	10,00
Glucose monohydrate	40,00
Chloramphenicol	0,05
Agar	15,00

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

#### Quality Control:

**Positive control:** *Candida albicans, Trichophyton mentagrophytes*

**Negative control:** *Escherichia coli*

**References:** European Pharmacopoeia 5.6

### SABOURAUD CHLORAMPHENICOL AGAR

A selective medium for the isolation of all species of fungi and dermatophytes from contaminated specimens.

Code Number:	<b>SCH20500, 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.

#### Formula in g/l

Sabouraud Dextrose (2%) Agar	44,5
Chloramphenicol	0,5

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

#### Quality Control:

**Positive control:** *Candida albicans, Trichophyton mentagrophytes*

**Negative control:** *Escherichia coli*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD CHLORAMPHENICOL ACTIDION AGAR

A selective medium for the isolation of dermatophytes from specimens containing mixed flora.

Code Number:	<b>SCA20500, 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.

#### Formula in g/l

Sabouraud Dextrose (2%) Agar	44,0
Chloramphenicol	0,5
Cycloheximide	0,5

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

#### Quality Control:

**Positive control:** *Candida albicans, Trichophyton mentagrophytes*

**Negative control:** *Escherichia coli*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

## II. DEHYDRATED CULTURE MEDIA

### SABOURAUD CHLORAMPHENICOL GENTAMICIN AGAR

A selective medium for the isolation of all species of yeasts and other fungi from contaminated specimens.

Code Number:	SCG20500, SCG25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,8 (approx.) at 25 °C

**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.

#### Formula in g/l

Sabouraud Dextrose (2%) Agar	44,90
Chloramphenicol	0,05
Gentamicin	0,01

**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 prepared medium protected from light at 2-8 °C (plates) or at room temperature (tubes).

#### Quality Control:

**Positive control:** *Candida albicans*, *Trichophyton mentagrophytes*

**Negative control:** *Escherichia coli*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.

### SABOURAUD CHLORAMPHENICOL GENTAMICIN TETRAZOLIUM AGAR

A selective medium for the isolation and differentiation of *Candida* spp.

Code Number:	STG20500, STG25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	5,6 (approx.) at 25 °C

**Direction:** Suspend 45 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes (100x16mm) and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position.

#### Formula in g/l

Sabouraud Dextrose (2%) Agar	44,60
Chloramphenicol	0,25
Gentamicin	0,10
Triphenyltetrazolium chloride	0,05

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*

**Negative control:** *Escherichia coli*

**References:** Pagano et al. (1958) Antibiotics Ann. 6: 137.

### SABOURAUD DEXTROSE BROTH, PH EUR - USP

A sterility test medium for the detection yeasts and moulds according to PH EUR (Sabouraud Dextrose Broth - Harmonised).

Code Number:	SDB20500, SDB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	5,7 (approx.) at 25 °C

**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.

#### Formula in g/l

Casein peptone	5
Meat peptone	5
Glucose	20

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*, *Aspergillus niger*

**References:** European Pharmacopoeia 5.6

### SABOURAUD CHLORAMPHENICOL BROTH

A selective medium for the cultivation of all species of fungi and dermatophytes from contaminated specimens.

Code Number:	SCC20500, SCC25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,4 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	10,0
Glucose	19,5
Chloramphenicol	0,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*, *Trichophyton mentagrophytes*

**Negative control:** *Escherichia coli*

**References:** Sabouraud (1892) Ann. Dermatol. Syphil. 3: 1061.



### SALMONELLA SHIGELLA (SS) AGAR, MODIFIED

A selective and differential medium for the isolation of enteric micro-organisms, especially *Salmonella* and some *Shigella* spp. The medium supplemented with phenylalanine is suitable to distinguish *Salmonella* spp. from *Proteus* spp.

Code Number:	<b>SSA20500, SSA25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<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. Cool quickly! Mix well before pouring.

#### Warning!

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

#### Formula in g/l

Peptones	12,0000
Bile salts	8,5000
Lactose	10,0000
Sodium citrate	10,0000
Sodium thiosulphate	8,5000
Ferric citrate	1,0000
L-Phenylalanine	1,0000
Neutral red	0,0250
Brilliant green	0,0003
Agar	15,0000

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella enteritidis*, *Shigella sonnei*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** Leifson (1935) J. Path. Bact. 40: 476.

### SALT BROTH

A selective medium for the presumptive identification of enterococci by determining their salt tolerance.

Code Number:	<b>SBR20500, 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.

#### Formula in g/l

Peptones	20
Sodium chloride	65

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

### SCHAEDLER AGAR

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

Code Number:	<b>SAA20500, 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 it is necessary to supplement with blood, cool to 50 °C and add aseptically 50 ml of sterile defibrinated blood. Mix well before pouring.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	18,000
Glucose	5,800
Sodium chloride	1,700
L-Cysteine	0,400
Vitamins	0,011
Buffers (TRIS and phosphates)	3,100
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacteroides fragilis*, *Clostridium perfringens*

**References:** Schaedler et al. (1965) J. Exp. Med. 122: 59.

### SCHAEDLER BROTH

An enrichment medium for the general cultivation of anaerobe bacteria.

Code Number:	<b>SAB20500, SAB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,6 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	18,000
Glucose	5,800
Sodium chloride	1,700
L-Cysteine	0,400
Vitamins	0,011
Buffers (TRIS and phosphates)	3,100

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Bacteroides fragilis*, *Clostridium perfringens*

**References:** Schaedler et al. (1965) J. Exp. Med. 122: 59.

## II. DEHYDRATED CULTURE MEDIA

### SELENITE BROTH BASE

A selective enrichment medium for the isolation of salmonellae.

Code Number:	<b>SEB20500, SEB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,0 (approx.) at 25 °C</b>

**Direction:** Dissolve 4 grams 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 of not using the medium on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly! A small amount of coloured precipitate is not detrimental.

**Warning!**

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

**Formula in g/l**

Peptones	5
Lactose	4
Buffers	10

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Salmonella enteritidis*  
**Negative control:** *Escherichia coli*

**References:** Leifson (1936) Am. J. Hyg. 24: 423.

### SELENITE CYSTINE BROTH BASE, USP

A selective enrichment medium for the isolation of salmonellae according to USP. The L-Cystine improves the recovery of salmonellae.

Code Number:	<b>SCB20500, SCB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,0 (approx.) at 25 °C</b>

**Direction:** Dissolve 4 grams 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 of not using the medium on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly! A small amount of coloured precipitate is not detrimental.

**Warning!**

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

**Formula in g/l**

Peptones	5,00
Lactose	4,00
L-Cystine	0.01
Buffers	10,00

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Salmonella enteritidis*  
**Negative control:** *Escherichia coli*

**References:** North and Bartam (1953) Appl. Microbiol. 1: 130.  
United States Pharmacopoeia XXVIII. (2005)

### SELENITE CYSTINE MANNITOL BROTH BASE

A selective enrichment medium for the isolation of salmonellae. The L-Cystine and the replacing lactose with mannitol improves the recovery of salmonellae.

Code Number:	<b>SCM20500, SCM25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,0 (approx.) at 25 °C</b>

**Direction:** Dissolve 4 grams 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 of not using the medium on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly! A small amount of coloured precipitate is not detrimental.

**Warning!**

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

**Formula in g/l**

Peptones	5,00
Mannitol	4,00
L-Cystine	0.01
Buffers	10,00

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Salmonella enteritidis*  
**Negative control:** *Escherichia coli*

**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 shigellae.

Code Number:	<b>SHB20500, 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 one vial of Shigella Selective Supplement (SBS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile containers.

#### Formula in g/l

Peptones	20
Glucose	1
Sodium chloride	5
Buffers	4

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Shigella sonnei*

**Negative control:** *Enterococcus faecalis*

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

### SIMMONS CITRATE AGAR

A differential medium for the differentiation of Gram-negative bacteria on the basis of citrate utilisation.

Code Number:	<b>CIT20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Klebsiella pneumoniae*

**Negative control:** *Escherichia coli*

**References:** Simmons (1926) J. Infect. Dis. 39: 209.

### SIM MEDIUM

A differential medium for the differentiation of enteric bacteria on the basis of motility, hydrogen sulphite and indole production.

Code Number:	<b>SIM20500, 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.

#### Formula in g/l

Peptones	26,0
Sodium thiosulphate	0,2
Ferrous ammonium sulphate	0,2
Agar	3,6

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Shigella sonnei*, *Proteus mirabilis*, *Escherichia coli*

**References:** Blazevic (1968) Appl. Microbiol. 16: 668.



### SLANETZ-BARTLEY AGAR BASE

A selective medium for the detection of enterococci.

Code Number:	<b>SLA20500, 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.

#### Formula in g/l

Peptones	25,0
Glucose	2,0
Sodium azide	0,4
Buffers	4,0
Agar	12,5

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Enterococcus faecalis*

**Negative control:** *Escherichia coli*

**References:** Slanetz and Bartley (1957) J. Bact. 74: 591.

## II. DEHYDRATED CULTURE MEDIA

### SPS AGAR

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

Code Number:	SPS20500, SPS25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (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

#### Formula in g/l

Peptones	25,90
Sodium sulphite	0,50
Ferric citrate	0,50
Sulfadiazine	0,12
Polymyxin B	0,01
Agar	13,00

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**Negative control:** *Escherichia coli*

**References:** Angelotti et al. (1962) Applied Microbiol. 10: 193.

### STAPHYLOCOCCUS AGAR No.110

A selective medium for the isolation and presumptive identification of pathogenic staphylococci.

Code Number:	STM20500, STM25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	13
Mannitol	10
Lactose	2
Sodium chloride	75
Gelatin	30
Buffers	5
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

**References:** APHA (1976) Compendium of Methods for the Microbiological Examination of Foods

### SUGAR FREE AGAR

A selective medium for the enumeration of contaminants in dairy products.

Code Number:	SFA20500, SFA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,8 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	15
Sodium chloride	5
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Lactobacillus acidophilus*

**References:** International Dairy Federation (1964) International standard count of contaminating organisms in butter. International Standard FILIDF30

### TCBS AGAR

A selective medium for the isolation of pathogenic vibrios.

Code Number:	TCB20500, TCB25000
Colour:	Beige
Appearance:	Homogeneous hygroscopic powder
Final pH:	8,6 (approx.) at 25 °C

**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.

#### Formula in g/l

Peptones	18,00
Sucrose	20,00
Bacteriological bile	8,00
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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Vibrio cholerae*

**Negative control:** *Escherichia coli*, *Proteus mirabilis*

**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.

Code Number:	<b>TEA20500, 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 54 g in one litre of distilled water and boil to dissolve the medium completely. Sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C and aseptically add 10 drops of Tergitol 7 TTC Solution (TES80007). Mix well before pouring.

#### Formula in g/l

Peptones	20,90
Lactose	20,00
Tergitol 7	0,10
Bromothymol blue	0,05
Agar	13,00

**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 prepared medium protected from light at 2-8 °C, but no longer than one week.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Enterococcus faecalis*

**References:** Chapman (1947) J. Bact. 53: 504.

### TEST AGAR, pH 7.2

A non-selective medium for the detection of antimicrobial inhibitors.

Code Number:	<b>T7220500, 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.

#### Formula in g/l

Peptones	7,0
Sodium chloride	5,0
Buffer	0,8
Agar	13,2

**Storage conditions:** Store the dehydrated medium tightly closed in a cool dry place and use before the expiry date on the label. Store the prepared medium in the dark, at 1-3 °C. Do not freeze! Additional packing in a wealded plastic bag is highly recommended.

#### Quality Control:

**Positive control:** *Bacillus subtilis*

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

### TEST AGAR, pH 6.0

A non-selective medium for the detection of antimicrobial inhibitors.

Code Number:	<b>T6020500, 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.

#### Formula in g/l

Peptones	6,9
Sodium chloride	5,1
Agar	13,0

**Storage conditions:** Store the dehydrated medium tightly closed in a cool dry place and use before the expiry date on the label. Store the prepared medium in the dark, at 1-3 °C. Do not freeze! Additional packing in a wealded plastic bag is highly recommended.

#### Quality Control:

**Positive control:** *Bacillus subtilis*

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

### TEST AGAR, pH 8.0

A non-selective medium for the detection of antimicrobial inhibitors.

Code Number:	<b>T8020500, 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.

#### Formula in g/l

Peptones	6,9
Sodium chloride	5,1
Buffer	2,4
Agar	13,1

**Storage conditions:** Store the dehydrated medium tightly closed in a cool dry place and use before the expiry date on the label. Store the prepared medium in the dark, at 1-3 °C. Do not freeze! Additional packing in a wealded plastic bag is highly recommended.

#### Quality Control:

**Positive control:** *Bacillus subtilis*

**References:** Levetzow (1971) Bundesgesundheitsblatt 14, 15/16: 211.

## II. DEHYDRATED CULTURE MEDIA

### TETRATHIONATE BROTH BASE, MULLER-KAUFFMAN

A selective medium for the enrichment of salmonellae with inhibition of protease.

Code Number:	<b>MTB20500, 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, 0,1% (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 the addition of the supplement.

The complete medium should be used on the day of preparation.

#### Formula in g/l

Peptones	7,0
Bacteriological bile	4,8
Sodium thiosulphate	40,7
Calcium carbonate	25,0
Sodium chloride	4,5

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*

**References:** Muller (1923) C. R. Soc. Biol. 89: 434.  
Kauffmann (1930) Zbl. Bakt. I. Orig. 119: 148.

### TETRATHIONATE BROTH BASE, MULLER-KAUFFMAN (MKTTn)

A selective medium for the enrichment of salmonellae according to ISO standard.

Code Number:	<b>TMK20500, 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, 0,1% (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 the addition of the supplement.

The complete medium should be used on the day of preparation.

#### Formula in g/l

Peptones	13,4
Bile salts	4,8
Calcium carbonate	38,7
Sodium thiosulphate	30,5
Sodium chloride	2,6

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Proteus mirabilis*

**References:** ISO 6579: 2002

### TETRATHIONATE BROTH BASE, PH EUR

A selective enrichment medium for the isolation of salmonellae according to PH EUR (Broth Medium I – Tetrathionate Bile Brilliant Green Broth).

Code Number:	<b>TTE20500, TTE25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<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 the addition of the supplement.

The complete medium should be used on the day of preparation.

#### Formula in g/l

Peptones	8,60
Bacteriological bile	8,00
Sodium thiosulphate	30,00
Calcium carbonate	20,00
Sodium chloride	6,40
Brilliant green	0,07

**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 prepared medium protected from light at 2-8 °C, but no longer than 24 hours.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*

**Negative control:** *Escherichia coli*

**References:** European Pharmacopoeia 5.6

### TETRATHIONATE BROTH BASE, USP

A selective enrichment medium for the isolation of salmonellae including *Salmonella typhi* according to USP.

Code Number:	<b>TTB20500, 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 the addition of the supplement.  
The complete medium should be used on the day of preparation.

#### Formula in g/l

Peptones	5
Bile salts	1
Sodium thiosulphate	30
Calcium carbonate	10

**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 prepared medium protected from light at 2-8 °C, but no longer than 24 hours.

#### Quality Control:

**Positive control:** *Salmonella enteritidis*  
**Negative control:** *Escherichia coli*

**References:** United States Pharmacopoeia XXVIII. (2005)

### THIOGLYCOLLATE MEDIUM, BREWER

An enrichment medium for the cultivation of both aerobic and anaerobic micro-organisms, especially in the sterility testing of the biological product.

Code Number:	<b>TBR20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium perfringens*, *Staphylococcus aureus*

**References:** Brewer (1940) J. Am. Med. Assoc. 115: 598.

### THIOGLYCOLLATE MEDIUM G

A medium for testing of sterility. The medium is primarily intended for the culture of anaerobic bacteria, however, it will also detect aerobic bacteria. This medium is more transparent than the classical thioglycollate media.

Code Number:	<b>THG20500, 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.

#### Formula in g/l

Casein peptone	15,250
Yeast extract	5,000
Glucose monohydrate	5,500
Sodium chloride	2,500
Sodium thioglycollate	0,500
L-Cystine	0,500
Resazurin	0,001
Gelling agent	0,750

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium sporogenes*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*

### THIOGLYCOLLATE MEDIUM, PH EUR

A medium for testing of sterility 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.

Code Number:	<b>THM20500, 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.

#### Formula in g/l

Casein peptone	15,250
Yeast extract	5,000
Glucose monohydrate	5,500
Sodium chloride	2,500
Sodium thioglycollate	0,500
L-Cystine	0,500
Resazurin	0,001
Agar	0,750

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium sporogenes*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

## II. DEHYDRATED CULTURE MEDIA

### THIOGLYCOLLATE MEDIUM WITH HEMIN + VITAMIN K3

A medium for testing of sterility. The medium is primarily intended for the culture of anaerobe bacteria.

Code Number:	THK20500, THK25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,1 (approx.) at 25 °C

**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.

#### Formula in g/l

Casein peptone	15,250
Yeast extract	5,000
Glucose monohydrate	5,500
Sodium chloride	2,500
Sodium thioglycollate	0,500
L-Cystine	0,500
Hemin	0,005
Vitamin K3	0,001
Resazurin	0,001
Agar	0,750

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

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

### TODD-HEWITT BROTH

A general-purpose non-selective medium for the cultivation primarily of beta-hemolytic streptococci.

Code Number:	THB20500, THB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,8 (approx.) at 25 °C

**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.

**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 Todd-Hewitt Selective Supplement (THS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile final containers.

#### Formula in g/l

Nutrient substrate (heart infusion, peptones)	30
Glucose	2
Sodium chloride	2
Buffers	3

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*

**References:** Todd and Hewitt (1932) J. Path. Bact. 35: 973.

### TOMATO JUICE AGAR

A selective medium for the cultivation and enumeration of *Lactobacillus* spp.

Code Number:	TJA20500, TJA25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,1 (approx.) at 25 °C

**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 it is necessary to adjust the pH 5,1 (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 re-heated.

#### FORMULA in g/l

Tomato extract	20
Peptones	10
Milk peptone	10
Agar	13

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**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.

Code Number:	TAC20500, TAC25000
Colour:	Black
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,2 (approx.) at 25 °C

**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. 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	3,0
Sodium thioglycollate	1,0
Potassium chloride	0,2
Calcium chloride	0,1
Magnesium chloride	0,1
Charcoal	10,0
Buffers	1,6
Agar	4,0



**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Shigella flexneri*

**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.

Code Number:	<b>TAW20500, TAW25000</b>
Colour:	<b>Yellowish</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.

**Formula in g/l**

Sodium chloride	3,0
Sodium thioglycollate	1,0
Potassium chloride	0,2
Calcium chloride	0,1
Magnesium chloride	0,1
Buffers	1,6
Agar	4,0

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Haemophilus influenzae*

**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 micro-organisms with prolonged survival of micro-organisms from collection to culturing.

Code Number:	<b>TCW20500, TCW25000</b>
Colour:	<b>Yellowish</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.

**Formula in g/l**

Sodium chloride	5,00
Sodium thioglycollate	1,50
Calcium chloride	0,09
Buffers	1,00
Agar	5,40

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Shigella sonnei*

**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.

Code Number:	<b>TSC20500, TSC25000</b>
Colour:	<b>Black</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>7,4 (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 final containers and sterilise by autoclaving at 121 °C for 15 minutes. Cool to 50 °C, While cooling turn the containers up and down a few times to distribute the charcoal uniformly.

**Formula in g/l**

Calcium chloride	0,100
Sodium thioglycollate	0,500
L-Cysteine	0,400
Charcoal	10,000
Methylene blue	0,001
Sodium glycerophosphate	10,000
Agar	5,000

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Streptococcus pyogenes*

**References:** Stuart et al. (1959) Pub. Hlth. Rep. Wash. 74: 431.

## II. DEHYDRATED CULTURE MEDIA

### 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.

Code Number:	TSW20500, TSW25000
Colour:	Greyish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,4 (approx.) at 25 °C

**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.

#### Formula in g/l

Calcium chloride	0,100
Sodium thioglycollate	0,500
L-Cysteine	0,400
Methylene blue	0,001
Sodium glycerophosphate	10,000
Agar	5,000

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus pyogenes*

**References:** Stuart et al. (1959) Pub. Hlth. Rep. Wash. 74: 431.

### TRICHOMONAS (CPLM) MEDIUM BASE, MODIFIED

A non-selective medium for the cultivation of *Trichomonas vaginalis*.

Code Number:	CPL20500, CPL25000
Colour:	Brownish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,0 (approx.) at 25 °C

**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. Dispense aseptically into sterile test tubes.

#### Formula in g/l

Nutrient substrate (peptones, liver extract)	26,000
Maltose	1,000
Ringer solution	4,500
L-Cysteine	2,000
Methylene blue	0,005
Buffers	0,500
Agar	1,000

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Trichomonas vaginalis*

**References:** Johnson and Trussel (1943) Proc. Soc. Exp. Biol. 54: 245.  
Szénási et al. (1999) Hungarian Venerological Archive 3: 215.

### TRIBUTYRIN AGAR BASE

A non-selective medium for the detection and enumeration of lipolytic micro-organisms.

Code Number:	TRA20500, TRA25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,5 (approx.) at 25 °C

**Direction:** Suspend 20 g in one litre of distilled water. Add 10 ml of Tributyrin Supplement (TRS80250) and mix uniformly. 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 uniformly turbid gel!

#### Formula in g/l

Peptones	8
Agar	12

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Lipase positive control:** *Staphylococcus aureus*

**Lipase negative control:** *Escherichia coli*

**References:** Anderson (1939) Ber. 3. Int. Microbiol. Congress. 3: 726.

### TRICHOMONAS MEDIUM BASE

A non-selective medium for the cultivation of *Trichomonas vaginalis*.

Code Number:	TRM20500, TRM25000
Colour:	Brownish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,4 (approx.) at 25 °C

**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. Dispense aseptically into sterile test tubes.

#### Formula in g/l

Liver extract	24,5
Glucose	5,0
Sodium chloride	6,5
Agar	1,0

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Trichomonas vaginalis*

**References:** Freinberg and Whittington (1957) J. Clin. Path. 10: 327.

### TRIPLE SUGAR IRON (TSI) AGAR, PH EUR

A differential medium for the differentiation of Gram-negative enteric bacteria on the basis of carbohydrate fermentation and hydrogen sulphite production according to PH EUR (Agar Medium M).

Code Number:	<b>TSI20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*, *Salmonella Enteritidis*, *Pseudomonas aeruginosa*

**References:** European Pharmacopoeia 5.6

### TRYPTONE BILE AGAR

A differential medium for the enumeration of *Escherichia coli* with DPM method.

Code Number:	<b>TBA20500, 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.

#### Formula in g/l

Tryptone	20,5
Bile salts	1,5
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Staphylococcus aureus*

**References:** Anderson and Baird-Parker (1975) J. Appl. Bact. 39: 111.

### TRYPTONE SOYA AGAR

A highly nutritious general purpose medium for the growth of wide variety of micro-organisms.

Code Number:	<b>TSA20500, 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.

#### Formula in g/l

Tryptone	17,0
Soya peptone	3,0
Glucose	2,5
Sodium chloride	5,0
Buffers	2,5
Agar	15,0

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*, *Staphylococcus aureus*

### TRYPTONE SOYA AGAR, PH EUR - USP

A highly nutritious general purpose medium for the cultivation of wide variety of micro-organisms according to PH EUR (Agar Medium B - Casein Soya-Bean Digest Agar - Harmonised).

Code Number:	<b>TSE20500, 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.

#### Formula in g/l

Casein peptone	15
Soya peptone	5
Sodium chloride	5
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*, *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

## II. DEHYDRATED CULTURE MEDIA

### TRYPTONE SOYA BILE (mTSB) BROTH

A selective medium for the isolation of enterohemorrhagic *Escherichia coli* (EHEC).

Code Number:	<b>TBB20500, 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.

#### Formula in g/l

Tryptone	17,00
Soya peptone	3,00
Bile salts	1,50
Glucose	2,50
Sodium chloride	5,00
Buffers	4,00

**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 prepared medium protected from light at room temperature

#### Quality Control:

**Positive control:** *Escherichia coli* O157

**Negative control:** *Staphylococcus aureus*

**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).

Code Number:	<b>TBN20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Escherichia coli* O157

**Negative control:** *Staphylococcus aureus*

**References:** ISO 16654: 1999

### TRYPTONE SOYA BROTH, PH EUR - USP

A highly nutritious general purpose medium for the growth of 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).

Code Number:	<b>TSB20500, TSB25000</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.

#### Formula in g/l

Casein peptone	17,0
Soya peptone	3,0
Glucose monohydrate	2,5
Sodium chloride	5,0
Dipotassium hydrogen phosphate	2,5

**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 prepared medium protected from light at room temperature

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Candida albicans*

**References:** European Pharmacopoeia 5.6

### TRYPTONE SOYA YEAST EXTRACT AGAR

A highly nutritious medium for the cultivation of wide variety of micro-organisms especially *Listeria monocytogenes*.

Code Number:	<b>TYA20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Listeria monocytogenes*

**References:** APHA (1992) Compendium of Methods for the Microbiological Examination of Foods, 3<sup>rd</sup> ed. ISO 10560: 1993

### TRYPTONE SOYA YEAST EXTRACT BROTH

A highly nutritious non-selective medium for the cultivation of wide variety of micro-organisms especially *Listeria monocytogenes*.

Code Number:	YTB20500, YTB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Listeria monocytogenes*

**References:** APHA (1992) Compendium of Methods for the Microbiological Examination of Foods, 3<sup>rd</sup> ed.  
ISO 11290: 1998

### TRYPTONE WATER

A differential medium for the testing of the micro-organisms' ability to produce indole from tryptophan.

Code Number:	TRW20500, TRW25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,5 (approx.) at 25 °C

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

#### Formula in g/l

Tryptone	10
Sodium chloride	5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Enterobacter aerogenes*

**References:** Farmer (1985) J. Clin. Microbiol. 21: 46.

### TRYPTOPHAN BROTH

A differential medium for the testing of the micro-organisms' ability to produce indole from tryptophan.

Code Number:	TRB20500, TRB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,5 (approx.) at 25 °C

**Direction:** Suspend 16 g in one litre of distilled water. Heat gently to dis-solve the medium completely. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Peptones	10
Sodium chloride	5
L-Tryptophan	1

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Escherichia coli*

**Negative control:** *Enterobacter aerogenes*

**References:** ISO 9308-1: 2000

### TRYPTOSE PHOSPHATE BROTH

A highly nutritious medium for the cultivation of fastidious bacteria.

Code Number:	TPB20500, TPB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	7,3 (approx.) at 25 °C

**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.

#### Formula in g/l

Tryptose	20,5
Glucose	2,0
Sodium chloride	5,0
Buffers	2,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Streptococcus pneumoniae*

**References:** Grinsberg 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*.

Code Number:	TSN20500, TSN25000
Colour:	Yellowish
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 boil well. 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Clostridium perfringens*

**References:** Marshall et al. (1965) Appl. Microbiol. 13: 559.

### TYROBUTYRICUM BROTH BASE

A selective medium for the detection of *Clostridium tyrobutyricum*.

Code Number:	TYB20500, TYB25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
Final pH:	6,0 (approx.) at 25 °C

**Direction:** Fill up 10 ml of Tyrobutyricum Sodium Lactate Solution (SLT80140) and 10 ml of Sodium Acetate Solution (SAS80100) to one litre with distilled water. Suspend 31 g of dehydrated medium and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula in g/l

Peptones	30,5000
L-Cysteine	0,5000
Resazurin	0,0025

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Clostridium tyrobutyricum*

**Negative control:** *Staphylococcus aureus*

### UNIVERSAL BEER AGAR

A non-selective medium for the isolation of beer spoilage micro-organisms.

Code Number:	UBA20500, UBA25000
Colour:	Pinkish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving:	6,3 (approx.) at 25 °C

**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 121 °C for 10 minutes.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*, *Saccharomyces cerevisiae*

**References:** Kozulis and Page (1968) Proc. Am. Brew. Chem: 52.

### UREA AGAR

A differential medium for the differentiation of micro-organisms, especially the Enterobacteriaceae, on the basis of urease activity.

Code Number:	URD20500-M
Packaging:	380 g agar base + 120 g urea
Appearance – agar base:	Pinkish, homogeneous, hygroscopic powder
Appearance – urea:	White pellet
pH before autoclaving:	6,4 - 6,6 at 25 °C
pH after autoclaving:	6,6 - 7,0 at 25 °C

**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. Allow to cool in slanted position.

#### Warning!

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

#### Formula of ready 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Proteus mirabilis*

**Negative control:** *Escherichia coli*

**References:** Christensen (1946) J. Bact. 52: 461.

### UREA BROTH

A differential medium for the differentiation of micro-organisms, especially the Enterobacteriaceae, on the basis of urease activity.

Code Number:	<b>URE20500-M</b>
Packaging:	<b>325 g broth base + 175 g urea</b>
Appearance – agar base:	<b>Pinkish, homogeneous, hygroscopic powder</b>
Appearance – urea:	<b>White pellet</b>
pH before autoclaving:	<b>6,4 - 6,6 at 25 °C</b>
pH after autoclaving:	<b>6,6 - 7,0 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.

### Warning!

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

### Formula of ready medium in g/l

Peptones	1,000
Glucose	1,000
Sodium chloride	5,000
Urea	20,000
Phenol red	0,012
Buffers	2,000

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Proteus mirabilis*

**Negative control:** *Escherichia coli*

**References:** Christensen (1946) J. Bact. 52: 461.

### UREA INDOLE BROTH

A differential medium for the differentiation of micro-organisms, especially the Enterobacteriaceae, on the basis of urease activity and indole production.

Code Number:	<b>URI20500-M</b>
Packaging:	<b>325 g broth base + 175 g urea</b>
Colour:	<b>Pinkish</b>
Appearance – agar base:	<b>Pinkish, homogeneous, hygroscopic powder</b>
Appearance – urea:	<b>White pellet</b>
pH before autoclaving:	<b>6,4 - 6,6 at 25 °C</b>
pH after autoclaving:	<b>6,6 - 7,0 at 25 °C</b>

**Direction:** Suspend 18 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 5 minutes.

### Warning!

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

### Formula of ready medium in g/l

Peptones	10,000
Sodium chloride	5,000
Urea	10,000
Phenol red	0,012
Buffers	3,000

**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 prepared medium protected from light at room temperature.

### Quality Control:

**Positive control:** *Proteus mirabilis*, *Klebsiella pneumoniae*

**Negative control:** *Escherichia coli*

**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).

Code Number:	<b>VBE20500, VBE25000</b>
Colour:	<b>Beige</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
Final pH:	<b>7,4 (approx.) at 25 °C</b>

**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.

### 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

**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 prepared medium protected from light at 2-8 °C.

### Quality Control:

**Positive control:** *Escherichia coli*, *Proteus mirabilis*

**Negative control:** *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6

## II. DEHYDRATED CULTURE MEDIA

### 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).

Code Number:	<b>VBH20500, 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.

**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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Proteus mirabilis*  
**Negative control:** *Staphylococcus aureus*

**References:** European Pharmacopoeia 5.6  
Mossel (1985) int. 7. Food Microbiol. 2: 27.  
ISO 7402: 1993

### VIOLET RED BILE LACTOSE AGAR

A lactose containing selective and differential medium for the detection and enumeration of coliforms.

Code Number:	<b>VBL20500, 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.

**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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Proteus mirabilis*  
**Negative control:** *Staphylococcus aureus*

**References:** APHA (1978) Standard Method for the Examination of Dairy Product. 14<sup>th</sup> ed.  
ISO 4832: 2006

### VIOLET RED BILE LACTOSE AGAR, BUFFERED

A lactose containing selective and differential medium for the detection and enumeration of coliforms from soured milk products.

Code Number:	<b>VBB20500, 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.

**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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli*, *Proteus mirabilis*  
**Negative control:** *Staphylococcus aureus*



### VOGEL-JOHNSON AGAR BASE, USP

A selective medium for the isolation of *Staphylococcus aureus* according to USP.

Code Number:	<b>VJA20500, 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 one dose (0,5 ml) of Potassium Tellurite Solution, Sterile (PTS80030). Mix well before pouring.

#### Formula in g/l

Peptones	15,000
Mannitol	10,000
Lithium chloride	5,000
Glycine	10,000
Phenol red	0,025
Buffers	5,000
Agar	15,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Staphylococcus aureus*

**Negative control:** *Escherichia coli*

**References:** Vogel and Johnson (1961) J. Pub. Hlth. Lab. 18: 131.  
United States Pharmacopoeia XXVIII. (2005)

### WILKINS-CHALGREN AGAR

A non-selective medium for the general cultivation of anaerobe micro-organisms especially recommended for antimicrobial susceptibility testing.

Code Number:	<b>WCA20500, 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 it is necessary to supplement with blood cool to 50 °C and add aseptically 50 ml of sterile defibrinated blood. Mix well before pouring.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	25,000
Glucose	1,000
Sodium chloride	5,000
Sodium pyruvate	1,000
L-Arginine	1,000
Vitamins	0,006
Agar	13,000

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Bacteroides fragilis, Peptostreptococcus anaerobius*

**References:** Wilkins and Chalgren (1976) Antimicrob. Agents Chemother. 10: 926.

### WILKINS-CHALGREN BROTH

An enrichment medium for the general cultivation of anaerobe micro-organisms especially recommended for antimicrobial susceptibility testing.

Code Number:	<b>WCB20500, 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.

#### Formula in g/l

Nutrient substrate (peptones, extracts)	25,000
Glucose	1,000
Sodium chloride	5,000
Sodium pyruvate	1,000
L-Arginine	1,000
Vitamins	0,006

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Bacteroides fragilis, Peptostreptococcus anaerobius*

**References:** Wilkins and Chalgren (1976) Antimicrob. Agents Chemother. 10: 926.

### WL DIFFERENTIAL AGAR

A selective medium for the control of industrial fermentation, particularly the processing of beer.

Code Number:	<b>WLD20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**Negative control:** *Saccharomyces cerevisiae*

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 375.

## II. DEHYDRATED CULTURE MEDIA

### WL DIFFERENTIAL BROTH

A selective medium for the control of industrial fermentation, particularly the processing of beer.

Code Number:	<b>WDB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*

**Negative control:** *Saccharomyces cerevisiae*

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WL NUTRIENT AGAR

A selective medium for the control of industrial fermentation, particularly the processing of beer.

Code Number:	<b>WLN20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*, *Saccharomyces cerevisiae*

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WL NUTRIENT BROTH

A selective medium for the control of industrial fermentation, particularly the processing of beer.

Code Number:	<b>WLB20500, 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.

#### 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

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Lactobacillus acidophilus*, *Saccharomyces cerevisiae*

**References:** Green and Gray (1950) Wallerstein Lab. Commun. 13: 357.

### WORT AGAR BASE

A selective medium for the cultivation and enumeration of yeasts.

Code Number:	<b>WOA20500, 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 121 °C for 15 minutes. Cool quickly!

#### Warning!

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

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**References:** Parfitt (1933) J. Dairy Sci. 16: 141.

### WORT BROTH BASE

An enrichment medium for the cultivation of yeasts.

Code Number:	<b>WOB20500, WOB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic 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). Mix well and heat gently to dissolve the medium completely. Dispense into final containers. Sterilise by autoclaving at 121 °C for 15 minutes.

**Formula in g/l**

Peptones	1,00
Malt extract	15,00
Maltose	12,75
Dextrin	2,75
Ammonium chloride	1,00
Buffers	1,50

**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 prepared medium protected from light at room temperature.

**Quality Control:**

**Positive control:** *Saccharomyces cerevisiae*

**Negative control:** *Escherichia coli*

**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).

Code Number:	<b>XLD20500, 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.

**Formula in g/l**

Yeast extract	3,00
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
L-Lysine	5,00
Phenol red	0,08
Agar	15,30

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli, Shigella flexneri, Salmonella enteritidis*

**Negative control:** *Enterococcus faecalis*

**References:** European Pharmacopoeia 5.6

### YEAST EXTRACT AGAR

A non-selective medium for the plate count of micro-organisms in water and dairy products.

Code Number:	<b>YEA20500, 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.

**Formula in g/l**

Peptones	7
Yeast extract	3
Agar	15

**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 prepared medium protected from light at 2-8 °C.

**Quality Control:**

**Positive control:** *Escherichia coli, Staphylococcus aureus*

**References:** Windle Taylor (1958) The Examination of Waters and Water Supplies, 7<sup>th</sup> ed.

## II. DEHYDRATED CULTURE MEDIA

### YEAST MALT AGAR

A non-selective medium for the cultivation of fungi.

Code Number:	<b>YMA20500, 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.

#### Formula in g/l

Peptones	6
Malt extract	3
Yeast extract	3
Glucose	10
Agar	15

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Candida albicans*

**References:** Atlas and Park (1993) Handbook of Micr. Media

### YERSINIA AGAR BASE

A selective and differential medium for the isolation of *Yersinia enterocolitica*.

Code Number:	<b>YAB20500, 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.

#### 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

**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 prepared medium protected from light at 2-8 °C.

#### Quality Control:

**Positive control:** *Yersinia enterocolitica*

**Negative control:** *Escherichia coli*

**References:** Schiemann (1979) Can. J. Microbiol. 25: 1928.

### YEAST MALT BROTH

A non-selective medium for the cultivation of fungi.

Code Number:	<b>YMB20500, YMB25000</b>
Colour:	<b>Yellowish</b>
Appearance:	<b>Homogeneous hygroscopic powder</b>
pH before autoclaving:	<b>6,2 (approx.) at 25 °C</b>

**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.

#### Formula in g/l

Peptones	7
Malt extract	3
Yeast extract	3
Dextrose	10

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Candida albicans*

**References:** Atlas and Park (1993) Handbook of Micr. Media

### YERSINIA BROTH BASE

A selective medium for the selective enrichment of *Yersinia enterocolitica*.

Code Number:	<b>YBB20500, 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.

#### Formula in g/l

Peptones	28,0
Sodium pyruvate	2,5
Buffers	2,5

**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 prepared medium protected from light at room temperature.

#### Quality Control:

**Positive control:** *Yersinia enterocolitica*

**Negative control:** *Pseudomonas aeruginosa*, *Enterococcus faecalis*

**References:** Schiemann (1979) Can. J. Microbiol. 25: 1298.

# **III. SUPPLEMENTS**



#### AEROMONAS SELECTIVE SUPPLEMENT AES80004

##### FOR 500 ml of AEROMONAS AGAR

**Description:** A freeze-dried mixture for the isolation of *Aeromonas* spp.

**Direction:** Suspend 30 g Aeromonas Agar Base 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**

Ampicillin	2,5 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### BISMUTH SULPHITE INDICATOR BSI81000

##### FOR 5 litre of BISMUTH SULPHITE AGAR

**Description:** Chemical mixture for the isolation of salmonellae including *Salmonella typhi*.

**Direction:** See the product information of Bismuth Sulphite Agar.

**Warning!**

- Before use or measuring heat the indicator to room temperature care-fully. The crystals precipitated during chilled storage must be re-dissolved completely. Several refrigeration - warm up process can not cause any damage.
- To ensure homogeneity shake well the indicator before use.

**Storage conditions:** Store in the dark, at 2-8 °C.

#### BORDETELLA SELECTIVE SUPPLEMENT BSS80004

##### FOR 500 ml of BORDETELLA AGAR

**Description:** A freeze-dried mixture for the isolation of *Bordetella* spp.

**Direction:** Suspend 26 g 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 content of one vial of Bordetella Selective Supplement (BSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Formula**

Cephalexin	20 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### BRILLIANT GREEN SOLUTION, 0,1% BGS80100-DC

##### FOR 5 litre of TETRATHIONATE BROTH, MULLER-KAUFFMAN FOR 5 litre of TETRATHIONATE BROTH, MULLER-KAUFFMAN (MKTN)

**Description:** Brilliant green solution for the preparation of tetrathionate broths.

**Direction:** Different. See the product information of relevant media.

**Formula**

Brilliant green	0,1 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### BRILLIANT GREEN SOLUTION, STERILE BGS80030

##### FOR 30 litre of BRILLIANT GREEN AGAR, HUMAN

**Description:** A brilliant green solution for the isolation of salmonellae including *Salmonella typhi* from clinical specimens.

**Direction:** Suspend 21,5 g Brilliant Green Agar Base, Human 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 one dose (0,5 ml) of Brilliant Green Solution, Sterile (BGS80030). Mix well before pouring.

**Formula**

Brilliant green	0,1 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### BRUCELLA SELECTIVE SUPPLEMENT BAS80004

##### FOR 500 ml of BRUCELLA AGAR

**Description:** A freeze-dried mixture for the isolation of *Brucella* spp.

**Direction:** Suspend 22,5 g Brucella Agar Base 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**

Bacitracin	250,0 mg / vial
Cycloheximide	50,0 mg / vial
Nystatin	11,0 mg / vial
Vancomycin	10,0 mg / vial
Nalidixic acid	2,5 mg / vial
Polymyxin B	0,4 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### CAMPYLOBACTER GROWTH SUPPLEMENT CGS80004

##### FOR 500 ml OF CAMPYLOBACTER AGAR

**Description:** A freeze-dried mixture for the enhanced growth of *Campylobacter* spp.

**Direction:** Suspend 19 g Campylobacter Agar Base 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 and one vial of Campylobacter Selective Supplement, Skirrow (CSS80004) reconstituted with 4 ml of sterile distilled water, or one vial of Campylobacter Selective Supplement, Preston (CPS80004) reconstituted with 4 ml of 1:1 mixture of acetone and sterile distilled water, or one vial of Campylobacter Selective Supplement, Blaser-Wang (CBW80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Formula

Sodium pyruvate	125 mg / vial
Sodium metabisulphite	125 mg / vial
Ferrous sulphate	125 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, BLASER-WANG CBW80004

##### FOR 500 ml of CAMPYLOBACTER AGAR, BLASER-WANG

**Description:** A freeze-dried mixture for the isolation of *Campylobacter* spp.

**Direction:** Suspend 19 g Campylobacter Agar Base 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 lysed horse blood and the contents of one vial of Campylobacter Growth Supplement (CGS80004) and one vial of Campylobacter Selective Supplement, Blaser-Wang (CBW80004) both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Formula

Cephalothin	7,5 mg / vial
Vancomycin	5,0 mg / vial
Trimethoprim	2,5 mg / vial
Amphotericin B	1,0 mg / vial
Polymyxin B	0,2 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, BOLTON CBS80004

##### FOR 500 ml of BOLTON BROTH

**Description:** A freeze-dried mixture for the selective enrichment of *Campylobacter* spp.

**Direction:** Suspend 14 g Bolton Broth Base 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

Cycloheximide	25 mg / vial
Cefoperazone	10 mg / vial
Trimethoprim	10 mg / vial
Vancomycin	10 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, CCDA CCS80004

##### FOR 500 ml of CAMPYLOBACTER AGAR, CCDA

**Description:** A freeze-dried mixture for the isolation of *Campylobacter* spp.

**Direction:** Suspend 24 g Campylobacter Blood-free (CCDA) 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 the contents of one vial of Campylobacter Selective Supplement, CCDA (CCS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

#### Formula

Cefoperazone	16 mg / vial
Amphotericin B	5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### CAMPYLOBACTER SELECTIVE SUPPLEMENT, KARMALI CPK80004

##### FOR 500 ml of CAMPYLOBACTER AGAR, KARMALI

**Description:** A freeze-dried mixture for the isolation of *Campylobacter* spp.

**Direction:** Suspend 23 g Campylobacter Agar Base, Karmali 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

Cycloheximide	50 mg / vial
Sodium pyruvate	50 mg / vial
Cefoperazone	16 mg / vial
Vancomycin	10 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.



## CAMPYLOBACTER SELECTIVE SUPPLEMENT, PRESTON CPS80004

FOR 500 ml of CAMPYLOBACTER AGAR, PRESTON

**Description:** A freeze-dried mixture for the isolation of *Campylobacter* spp.

**Direction:** Suspend 19 g Campylobacter Agar Base 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 and one vial of Campylobacter Selective Supplement, Preston (CPS80004) reconstituted with 4 ml of 1:1 mixture of acetone and sterile distilled water. Mix well before pouring.

### Formula

Cycloheximide	50,0 mg / vial
Rifampicin	5,0 mg / vial
Trimethoprim	5,0 mg / vial
Polymyxin B	0,4 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.



## CEREUS SUPPLEMENT CES80050

FOR 500 ml of ChromoBio® CEREUS AGAR

**Description:** A powdered mixture for the isolation of *Bacillus cereus*.

**Direction:** Suspend 16,5 g ChromoBio® Cereus 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. 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 to 50 °C the agar base and add aseptically the supplement. Mix well before pouring. To ensure the complete homogeneity repeat the mixing a few times during the pouring again.

### Formula

Lecithin	1000 mg / vial
Trimethoprim	5 mg / vial
Polymyxin B	53.000 IU / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

## CAMPYLOBACTER SELECTIVE SUPPLEMENT, SKIRROW CSS80004

FOR 500 ml of CAMPYLOBACTER AGAR, SKIRROW

**Description:** A freeze-dried mixture for the isolation of *Campylobacter* spp.

**Direction:** Suspend 19 g Campylobacter Agar Base 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) and one vial of Campylobacter Selective Supplement, Skirrow (CSS80004) both reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Formula

Vancomycin	5,0 mg / vial
Trimethoprim	2,5 mg / vial
Polymyxin B	0,2 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

## CLOSTRIDIUM SELECTIVE SUPPLEMENT CDS80004

FOR 500 ml of CLOSTRIDIUM DIFFICILE AGAR

**Description:** A freeze-dried mixture for the isolation of *Clostridium difficile*.

**Direction for blood agar:** Suspend 34,5 g Clostridium Difficile Agar Base 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 Clostridium Difficile (CCFA) 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 the contents of one vial of Clostridium Selective Supplement (CDS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

Because of sensitivity of some strains of *Clostridium difficile*, the amount of cycloserine and cefoxitin is reduced. If you want to compensate the reduction in selectivity, treat the specimen with alcohol before inoculation.

### Formula

D-Cycloserine	125 mg / vial
Cefoxitin	4 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

## CEFIXIME TELLURITE SELECTIVE SUPPLEMENT CTS80004

FOR 500 ml of MACCONKEY AGAR, SORBITOL

**Description:** A freeze-dried mixture for the isolation of *E. coli* O157:H7.

**Direction:** Suspend 26 g MacConkey Agar Base, Sorbitol 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 Selective Supplement (CTS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

### Formula

Potassium tellurite	1,250 mg / vial
Cefixime	0,025 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

### III. SUPPLEMENTS

#### DIASALM-MSRV MAGNESIUM CHLORIDE SOLUTION DSM80500

FOR 500 g of DIASALM MEDIUM BASE  
FOR 500 g of RAPPAPORT-VASSILIADIS (MSRV) MEDIUM BASE

**Description:** A magnesium chloride solution for the preparation of DIASALM and Rappaport-Vassiliadis (MSRV) medium.

**Direction:** Fill up 20 ml of DIASALM-MSRV Magnesium Chloride Solution (DSM80500) to 500 ml with distilled water and suspend 20 g of DIASALM Medium Base, or fill up 10 ml of DIASALM-MSRV Magnesium Chloride Solution (DSM80500) to 500 ml with distilled water and suspend 10,5 g of Rappaport-Vassiliadis (MSRV) Medium Base. 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) (in case of DIASALM) or one vial of Novobiocin (10 mg) Supplement (DSN80004-10) (in case of RAPPAPORT-VASSILIADIS) 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

Magnesium chloride	600 g/l
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**Storage conditions:** Store at room temperature.

#### DTM SELECTIVE SUPPLEMENT DTS80004

FOR 500 ml of DTM AGAR

**Description:** A freeze-dried mixture for the isolation of dermatophytes.

**Direction:** Suspend 20 g DTM Agar Base (DTM20500) in 500 ml of dis-tilled 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

Cycloheximide	0,25 g / vial
Chlortetracycline	0,05 g / vial
Gentamicin	0,05 g / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### ENDO BASIC FUCHSIN SOLUTION FBS80060

FOR 500 g of ENDO and ENDO LES AGAR BASE  
FOR 250 g of ENDO M BROTH BASE

**Description:** A basic fuchsin solution for the preparation of Endo media.

**Direction:** Suspend 42 g Endo Agar Base or 50 g Endo LES Agar Base or 48 g Endo M Broth Base in one litre of distilled water. Add 5 ml (in case of agars) or 10 ml (in case of broth) of Endo Basic Fuchsin Solution (FBS80060). Mix well 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 broth). Sterilise by autoclaving at 121 °C for 15 minutes. Mix well again before pouring ((in case of agars) or dispensing ((in case of broth).

#### Formula

Basic fuchsin	10%
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**Storage conditions:** Store at room temperature.

#### ENDO BASIC FUCHSIN SOLUTION, DEV FBS80045

FOR 500 g of ENDO AGAR BASE, DEV

**Description:** A basic fuchsin solution for the preparation of Endo media.

**Direction:** Suspend 58 g Endo Agar Base, DEV 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%
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**Storage conditions:** Store at room temperature.

#### FERRIC AMMONIUM CITRATE SOLUTION, STERILE FAC80030

FOR 30 litre of MEDIA

**Description:** A ferric ammonium citrate solution for the differentiation of *Clostridium* spp.

**Direction:** Suspend the appropriate quantity of the different medium bases in 500 ml of distilled water 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. Cool to 50 °C and add aseptically one dose (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030) and one dose (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030). Mix well before pouring (in case of agars) or dispensing (in case of broths).

#### Formula

Ferric ammonium citrate	60 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### GC SELECTIVE SUPPLEMENT, VCN VCN80004

FOR 500 ml of SELECTIVE THAYER-MARTIN AGAR

**Description:** A freeze-dried mixture for the isolation of pathogenic neisseriae.

**Direction for Thayer-Martin Agar:** Suspend 19,5 g GC Agar Base 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 aseptically add to the above at 50 °C. Mix well before pouring.

#### Formula

Colistin	3,75 mg / vial
Nystatin	1,50 mg / vial
Vancomycin	1,50 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**GC SELECTIVE SUPPLEMENT, VCNT**  
**VCT80004**

**FOR 500 ml of SELECTIVE THAYER-MARTIN AGAR**

**Description:** A freeze-dried mixture for the isolation of pathogenic neisseriae. This supplement prevents the swarming of *Proteus* spp.

**Direction for Thayer-Martin Agar:** Suspend 19,5 g GC Agar Base 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 at 50 °C. Mix well before pouring.

**Formula**

Colistin	3,75 mg / vial
Trimethoprin	2,50 mg / vial
Nystatin	1,50 mg / vial
Vancomycin	1,50 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**GLYCEROL SUPPLEMENT**

**GLC80100 - 100 ml**  
**GLC80500 - 500 ml**

**Description:** Glycerol for the preparation of some media.

**Direction:** Different. See the product information of relevant media.

**Formula**

Glycerol, bacteriological grade	100 ml
Glycerol, bacteriological grade	500 ml

**Storage conditions:** Store at room temperature.

**GROWTH FACTOR MIXTURE (WITH HYDRATION FLUID)**  
**GFM80005**

**FOR 500 ml of THAYER-MARTIN or CHOCOLATE or CHARCOAL AGAR**

**Description:** An essential growth factor freeze-dried mixture for the enhanced growth of fastidious micro-organisms.

**Direction:** Suspend 26 g Charcoal Agar Base or 16,5 g Chocolate Agar Base or 19,5 g GC Agar Base 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 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.

**Formula**

Glucose	1000,00 mg / vial
L-Cysteine	259,00 mg / vial
L-Glutamine	100,00 mg / vial
L-Cystine	11,00 mg / vial
Adenine	10,00 mg / vial
NAD	2,50 mg / vial
Coccarboxylase	1,00 mg / vial
Guanine	0,30 mg / vial
Ferric nitrate	0,20 mg / vial
p-Aminobenzoic acid	0,13 mg / vial
Vitamin B12	0,10 mg / vial
Thiamine	0,03 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**GSP SELECTIVE SUPPLEMENT**  
**GSU80004**

**FOR 500 ml of GSP AGAR**

**Description:** A freeze-dried mixture for the detection and differentiation of *Pseudomonas* and *Aeromonas* spp.

**Direction:** Suspend 23 g GSP Agar Base 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**

Penicillin	70 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

**HAEMOPHILUS SUPPLEMENT**  
**HTS80004**

**FOR 500 ml of HAEMOPHILUS TEST AGAR**

**Description:** A freeze-dried mixture for the isolation of *Haemophilus influenzae*.

**Direction:** Suspend 21,5 g Haemophilus Test 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 the contents of one vial of Haemophilus Supplement (HTS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Formula**

NAD	7,5 mg / vial
Hemin	7,5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### K AGAR MALIC ACID SOLUTION KMS80005

FOR 500 ml of K AGAR

**Description:** A malic acid solution for the preparation of K agar.

**Direction:** Suspend 12 g K Agar Base 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 re-heated.

**Formula**

Malic acid	10%
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**Storage conditions:** Store at room temperature.

#### LACTIC ACID SOLUTION LAS80100

**Description:** A lactic acid solution for pH adjustment of some media.

**Direction:** Different. See the product information of media.

**Formula**

Lactic acid	10%
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**Storage conditions:** Store at room temperature.

#### LEGIONELLA BCYE GROWTH FACTOR MIXTURE WITH CYSTEINE



LGF80005-01 FOR 100 ml of AGAR  
LGF80005-02 FOR 500 ml of AGAR

**Description:** A liquid essential growth factor mixture for the isolation of legionellae.

**Direction:** Prepare the appropriate amount of Legionella (CYE) Agar Base suspension (3,6 g or 18 g agar base in 100 ml or 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.

In case of 100 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-01). Mix well before pouring.

In case of 500 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-02). Mix well before pouring.

**Formula**

Essential growth factors	0,10 g / litre agar
Ferric pyrophosphate	0,25 g / litre agar
L-Cysteine	0,40 g / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LEGIONELLA BCYE GROWTH FACTOR MIXTURE WITHOUT CYSTEINE



LWC80005-01 FOR 100 ml of AGAR  
LWC80005-02 FOR 500 ml of AGAR

**Description:** A liquid essential growth factor mixture for the isolation of legionellae.

**Direction:** Prepare the appropriate amount of Legionella (CYE) Agar Base suspension (3,6 g or 18 g agar base in 100 ml or 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.

In case of 100 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture without Cysteine (LWC80005-01). Mix well before pour-ing.

In case of 500 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture without Cysteine (LWC80005-02). Mix well before pour-ing.

**Formula**

Essential growth factors	100 mg / litre agar
Ferric pyrophosphate	250 mg / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LEGIONELLA SELECTIVE SUPPLEMENT, BMPA



BMP80005-01 FOR 100 ml of AGAR  
BMP80005-02 FOR 500 ml of AGAR

**Description:** A freeze-dried mixture for the isolation of legionellae.

**Direction:** Prepare the appropriate amount of Legionella (CYE) Agar Base suspension (3,6 g or 18 g agar base in 100 ml or 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.

In case of 100 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-01). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, BMPA (BMP80005-01). Shake well and add to the medium. Mix well before pouring.

In case of 500 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-02). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, BMPA (BMP80005-02). Shake well and add to the medium. Mix well before pouring.

**Formula**

Cefamandole	4 mg / litre agar
Polymyxin B	10 mg / litre agar
Anisomycin	80 mg / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LEGIONELLA SELECTIVE SUPPLEMENT, GVPK



GVP80005-01 FOR 100 ml of AGAR  
GVP80005-02 FOR 500 ml of AGAR

**Description:** A freeze-dried mixture for the isolation of legionellae.

**Direction:** Prepare the appropriate amount of Legionella (CYE) Agar Base suspension (3,6 g or 18 g agar base in 100 ml or 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.

In case of 100 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-01). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, GVPC (GVP80005-01). Shake well and add to the medium. Mix well before pouring.

In case of 500 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-02). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, GVPC (GVP80005-02). Shake well and add to the medium. Mix well before pouring.

#### Formula

Glycine	3.000 mg / litre agar
Polymyxin B	10 mg / litre agar
Vancomycin	1 mg / litre agar
Cycloheximide	80 mg / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

### LEGIONELLA SELECTIVE SUPPLEMENT, MWY



**MWY80005-01 FOR 100 ml of AGAR**  
**MWY80005-02 FOR 500 ml of AGAR**

**Description:** A freeze-dried mixtures for the isolation of legionellae.

**Direction:** Prepare the appropriate amount of Legionella (CYE) Agar Base suspension (3,6 g or 18 g agar base in 100 ml or 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.

In case of 100 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-01). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, MWY (MWY80005-01). Shake well and add to the medium. Mix well before pouring.

In case of 500 ml add aseptically one vial of Legionella BCYE Growth Factor Mixture with Cysteine (LGF80005-02). Add 5 ml of distilled wa-ter to one vial of Legionella Selective Supplement, MWY (MWY80005-02). Shake well and add to the medium. Mix well before pouring.

#### Formula

Glycine	3.000 mg / litre agar
Polymyxin B	8 mg / litre agar
Anisomycin	80 mg / litre agar
Vancomycin	1 mg / litre agar
Bromothymol blue	10 mg / litre agar
Bromocresol purple	10 mg / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

### LISTERIA SELECTIVE SUPPLEMENT, HALF FRASER LSH80004

**FOR 500 ml of HALF FRASER BROTH**

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction for Half Fraser Broth:** Suspend 27,5 g Listeria Enrichment Broth Base, UVM - Fraser 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

Ferric ammonium citrate	250,00 mg / vial
Acriflavine	6,25 mg / vial
Nalidixic acid	5,00 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

### LISTERIA SELECTIVE SUPPLEMENT, FRASER LSF80004

**FOR 500 ml of FRASER BROTH**

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction for Fraser Broth:** Suspend 27,5 g Listeria Enrichment Broth Base, UVM – Fraser 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 water. Mix well. Dispense aseptically into sterile final containers.

#### Formula

Ferric ammonium citrate	250,0 mg / vial
Acriflavine	12,5 mg / vial
Nalidixic acid	10,0 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

### LISTERIA SELECTIVE SUPPLEMENT, OXFORD LSO80004

**FOR 500 ml of OXFORD AGAR**

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction:** Suspend 29,5 g Listeria Selective Agar Base, Oxford 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 (LSO80004) reconstituted with 4 ml of 1:1 mixture of ethanol and sterile distilled water. Mix well before pouring.

#### Formula

Cycloheximide	200,0 mg / vial
Colistin	10,0 mg / vial
Phosphomycin	5,0 mg / vial
Acriflavine	2,5 mg / vial
Cefotetan	1,0 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LISTERIA SELECTIVE SUPPLEMENT, PALCAM LSP80004

##### FOR 500 ml of PALCAM AGAR

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction:** Suspend 36 g Listeria Selective Agar Base, Palcam 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

Ceftazidime	10,0 mg / vial
Polymyxin B	5,0 mg / vial
Acriflavine	2,5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LISTERIA SELECTIVE SUPPLEMENT, UVM I LU180004

##### FOR 500 ml of UVM I BROTH

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction:** Suspend 27,5 g 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

Nalidixic acid	10 mg / vial
Acriflavine	6 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### LISTERIA SELECTIVE SUPPLEMENT, UVM II LU280004

##### FOR 500 ml of UVM II BROTH

**Description:** A freeze-dried mixture for the isolation of *Listeria monocytogenes*.

**Direction:** Suspend 27,5 g 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

Acriflavine	12,5 mg / vial
Nalidixic acid	10 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.



#### LISTERIA SUPPLEMENT LDS80100

##### FOR 500 ml of ChromoBio® LISTERIA or ChromoBio® LISTERIA PLUS

**Description:** A sterile liquid mixture for the supplementation of chromogenic listeria media.

**Direction:** Suspend 35 g ChromoBio® Listeria or ChromoBio® Listeria Plus 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.

##### Formula:

See the product information sheet of ChromoBio® Listeria or ChromoBio® Listeria Plus

**Storage conditions:** Store protected from light at room temperature.

#### M-CP CHROMOGENIC SUPPLEMENT

##### MCC80004-01 FOR 100 ml of M-CP AGAR MCC80004-02 FOR 500 ml of M-CP AGAR

**Description:** A freeze-dried mixture for the enumeration of *Clostridium perfringens*.

**Direction for 100 ml of Agar:** Suspend 7,1 g ChromoBio® M-CP Base in 100 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 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 of Agar:** Suspend 35,5 g ChromoBio® M-CP Base 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 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

Phenolphthalein diphosphate	0,1 g / litre agar
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### M-CP SELECTIVE SUPPLEMENT

##### MPS80004-01 FOR 100 ml of M-CP AGAR MPS80004-02 FOR 500 ml of M-CP AGAR

**Description:** A freeze-dried mixture for the enumeration of *Clostridium perfringens*.

**Direction for 100 ml of Agar:** Suspend 7,1 g ChromoBio® M-CP Base in 100 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 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 of Agar:** Suspend 35,5 g ChromoBio® M-CP Base 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 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**

D-Cycloserine	0,400 g / litre agar
Iron(III) chloride	0,090 g / litre agar
Polymyxin B	0,025 g / litre agar

**Storage conditions:** Store in the dark, at 2-8 °C.

**MALACHITE GREEN SOLUTION, STERILE  
MS080030**

**FOR 30 litre of MALACHIT GREEN BROTH**

**Description:** A malachite green solution for the preparation of Malachite Green Broth.

**Direction:** Suspend 4,2 g Malachite Green 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 one dose (0,5 ml) of Malachite Green Solution, Sterile (MS080030). Mix well and dispense aseptically into sterile final containers.

**Formula**

Malachite green	1 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

**MRSA SELECTIVE SUPPLEMENT  
MSS80004**

**FOR 500 ml of MRSA SCREEN AGAR**

**Description:** A freeze-dried mixture for the detection of MRSA.

**Direction:** Suspend 39 g MRSA Screen 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 the contents of one vial of MRSA Selective Supplement (MSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

**Formula**

Oxacillin	3 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

**MRS SUPPLEMENT  
MRC80100**

**FOR 8 litre of MRS AGAR  
FOR 10 litre of MRS BROTH**

**Description:** Solution containing TWEEN 80 and sodium acetate for the preparation of MRS media.

**Direction:** Suspend the appropriate quantity of the different medium bases 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 (in case of agars) or heat gently to dissolve the medium completely (in case of broths). Dispense into final containers (in case of broth). 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 %

**Storage conditions:** Store in the dark, at room temperature.

**MUG SUPPLEMENT  
MGS80004**

**Description:** A fluorescent agent for the detection of *Escherichia coli*.

**Direction:** Prepare 500 ml of the necessary 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**

MUG	50 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

**NOVOBIOCIN SUPPLEMENTS**

**Novobiocin (5 mg) Supplement DSN80004-05  
Novobiocin (10 mg) Supplement DSN80004-10  
Novobiocin (20 mg) Supplement DSN80004-20**

**Description:** A freeze-dried mixture for the supplementation of some media.

**Direction:** Different. See the product information of media (e.g. DIASALM Medium Base, Rappaport-Vassiliadis (MSRV) Medium Base, Tetrathionate Broths, etc.).

**Formula**

Novobiocin (5 mg) Supplement	5 mg / vial
Novobiocin (10 mg) Supplement	10 mg / vial
Novobiocin (20 mg) Supplement	20 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.



### III. SUPPLEMENTS

#### OGYE SELECTIVE SUPPLEMENT OGS80004

##### FOR 500 ml of OGYE AGAR

**Description:** A freeze-dried mixture for the isolation of yeasts and moulds.

**Direction:** Suspend 19 g Oxytetracycline Glucose Yeast Extract 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 OGYE Selective Supplement (OGS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### Formula

Oxytetracycline	50 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### PERFRINGENS SELECTIVE SUPPLEMENT, OPSP, A + B POS80004

##### FOR 500 ml of OPSP AGAR

**Description:** A freeze-dried mixture for the isolation of *Clostridium perfringens*.

**Direction:** Suspend 23,5 g Perfringens (OPSP) Agar Base in 500ml 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

##### Perfringens Selective Supplement, OPSP, A

Polymyxin B	0,80 mg / vial
Oleandomycin	0,25 mg / vial

##### Perfringens Selective Supplement, OPSP, B

Sulphadiazine	50 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### PERFRINGENS SELECTIVE SUPPLEMENT, SFP PFS80004

##### FOR 500 ml of SFP AGAR

**Description:** A freeze-dried mixture for the isolation of *Clostridium perfringens*.

**Direction for SFP Agar:** Suspend 23,5 g Perfringens (TSC+SFP) Agar Base in 475 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 23,5 g Perfringens (TSC+SFP) 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 the contents of one vial of Perfringens Selective Supplement, SFP (PFS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### Formula

Kanamycin	6,0 mg / vial
Polymyxin B	2,5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### PERFRINGENS SELECTIVE SUPPLEMENT, TSC PSS80004

##### FOR 500 ml of TSC AGAR

**Description:** A freeze-dried mixture for the isolation of *Clostridium perfringens*.

**Direction for TSC Agar:** Suspend 23,5 g Perfringens (TSC+SFP) Agar Base in 475 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 23,5 g Perfringens (TSC+SFP) 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 the contents of one vial of Perfringens Selective Supplement, TSC (PSS80004) reconstituted with 4 ml of sterile distilled water. Mix well before pouring.

##### Formula

D-Cycloserine	200 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

#### PHENYLETHANOL SUPPLEMENT PEE80030

##### FOR 500 g of PHENYLETHYL ALCOHOL (PEA) AGAR

**Description:** Phenylethanol for the preparation of Phenylethyl Alcohol (PEA) Agar.

**Direction:** Suspend 45 g Phenylethyl Alcohol (PEA) Agar Base 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 blood. Mix well again before pouring.

##### Formula

Phenylethanol	30 ml
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**Storage conditions:** Store in the dark, at room temperature.

#### POTASSIUM TELLURITE SOLUTION, STERILE PTS80030

##### FOR 30 litre of VOGEL-JOHNSON AGAR FOR 10 litre of GIOLITTI-CANTONI BROTH

**Description:** A potassium tellurite solution for the preparation of the above media.

**Direction:** Suspend the appropriate quantity of the different medium bases in 500 ml of distilled water 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. Cool to 50 °C and add aseptically one dose (0,5 ml) (in case of agar) or 3 dose (1,5 ml) (in case of broth) of Potassium Tellurite Solution, Sterile (PTS80030). Mix well before pouring (in case of agar) or dispense aseptically into sterile final containers (in case of broth).

##### Formula

Potassium tellurite	18 %
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**Storage conditions:** Store in the dark, at 2-8 °C.



**PSEUDOMONAS SELECTIVE SUPPLEMENT, CFC**  
CFC80004



FOR 500 ml of CETRIMIDE (CFC) AGAR

**Description:** A freeze-dried mixture for the isolation of *Pseudomonas aeruginosa*.

**Direction:** Suspend 25 g Cetrimide (CN) Agar Base No.2 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**

Cephaloridine	100 mg / vial
Fucidine	5 mg / vial
Cetrimide	5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**PSEUDOMONAS SELECTIVE SUPPLEMENT, CN**  
PCN80004



FOR 500 ml of CETRIMIDE (CN) AGAR

**Description:** A freeze-dried mixture for the isolation of *Pseudomonas aeruginosa*.

**Direction:** Suspend 25 g Cetrimide (CN) Agar Base No.2 500 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 mg / vial
Nalidixic acid	7,5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**RAPPAPORT-VASSILIADIS MAGNESIUM CHLORIDE SOLUTION**  
RMG81000

FOR 500 g of RAPPAPORT-VASSILIADIS BROTH BASE, PH EUR - USP

**Description:** A magnesium chloride solution for the preparation of Rappaport-Vassiliadis Broth.

**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, PH EUR - USP 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	1074 g/l
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**Storage conditions:** Store at room temperature.



**ROSOLIC ACID SUPPLEMENT**  
RAS80005

FOR 500 ml of M-FC AGAR AND BROTH

**Description:** A freeze-dried mixture for detection of faecal coliforms.

**Direction for agar:** Suspend 26 g agar base 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 broth base 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!**

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

**Formula**

Rosolic acid	50 mg / vial
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**Storage conditions:** Store in the dark at room temperature.

**RPMI MOPS SOLUTION, STERILE**  
RGS80100

FOR 500 ml of RPMI MOPS AGAR

**Description:** A sterile RPMI MOPS solution for the preparation of RPMI MOPS Agar.

**Direction:** Suspend 17,5 g of RPMI MOPS Agar Base 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. Heat gently 100 ml of RPMI MOPS Solution, Sterile (RGS80100) to 50 °C and add aseptically to the agar base. Mix well before pouring.

**Formula**

MOPS	34,5 g/l
RPMI 1640	10,5 g/l

**Storage conditions:** Store in the dark, at 2-8 °C.



**SALMONELLA SELECTIVE SUPPLEMENT**  
SSS80004

FOR 500 ml of ChromoBio® SALMONELLA

**Description:** A freeze-dried mixture for the isolation of *Salmonella* spp.

**Direction:** Suspend 21,5 g ChromoBio® Salmonella 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 the contents of one vial of Salmonella Selective Supplement (SSS80004) reconstituted with 4 ml sterile distilled water. Mix well before pouring

**Formula**

Cefsulodin	6,0 mg / vial
Novobiocin	2,5 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

## III. SUPPLEMENTS

NEW PRODUCT

### SALMONELLA PLUS SELECTIVE SUPPLEMENT SSP80004

FOR 500 ml of ChromoBio® SALMONELLA PLUS

**Description:** A freeze-dried mixture for the isolation of *Salmonella* spp.

**Direction:** Suspend 22,5 g ChromoBio® Salmonella Plus 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 the contents of one vial of Salmonella Plus Selective Supplement (SSP80004) reconstituted with 4 ml sterile distilled water. Mix well before pouring

#### Formula

Cefsulodin	6,0 mg / vial
Novobiocin	2,5 mg / vial
Specific inhibitor	1,0 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

### SELENITE SUPPLEMENT SES80110

FOR 500 g of SELENITE BROTH BASE

**Description:** Sodium selenite powder for the preparation of selenite broths.

**Direction:** Dissolve 4 grams of Selenite Supplement (SES80110) in one litre of distilled water and then add the appropriate quantity of the different broth bases. Heat gently to dissolve the medium completely. Mix well and dispense into final containers. In case of not using the medium on the day of preparation, sterilise at 100 °C for 10 minutes. Cool quickly! A small amount of coloured precipitate is not detrimental.

#### Warning!

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

#### Formula

Sodium selenite	110 g
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**Storage conditions:** Store at room temperature.

### SHIGELLA SELECTIVE SUPPLEMENT SBS80004

FOR 500 ml of SHIGELLA SELECTIVE AGAR

**Description:** A freeze-dried mixture for the selective enrichment of *Shigella* spp.

**Direction:** Suspend 15 g Shigella Selective Broth Base in 500 ml of dis-tilled 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 one vial of Shigella Selective Supplement (SBS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile containers.

#### Formula

Cefsulodin	20,0 mg / vial
Novobiocin	0,3 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

### SODIUM ACETATE SOLUTION SAS80100

FOR 10 litre of TYROBUTYRICUM BROTH  
FOR 3 litre of ROGOSA AGAR

**Description:** Solution containing sodium acetate for the preparation of some media.

**Direction:** Suspend the appropriate quantity of the different medium bases in one litre of distilled water. Add 10 ml (in case broth) or 33 ml (in case of agar) of Sodium Acetate Supplement (SAS80100). Mix well and heat gently to dissolve the medium completely (in case of broth) or heat with frequent agitation until the medium boils well (in case of agar). Dispense into final containers (in case of broth). Sterilise by autoclaving at 121 °C for 15 minutes.

#### Formula

Sodium acetate	50 %
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**Storage conditions:** Store in the dark, at room temperature.

### SODIUM METABISULPHITE SOLUTION, STERILE SMS80030

FOR 30 litre of MEDIA

**Description:** A sodium metabisulphite solution for the differentiation of *Clostridium* spp.

**Direction:** Suspend the appropriate quantity of the different medium bases in 500 ml of distilled water 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. Cool to 50 °C and add aseptically one dose (0,5 ml) of Sodium Metabisulphite Solution, Sterile (SMS80030) and one dose (0,5 ml) of Ferric Ammonium Citrate Solution, Sterile (FAC80030). Mix well before dispensing.

#### Formula

Sodium metabisulphite	60 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

### STAPH/STREP SELECTIVE SUPPLEMENT SHS80004

FOR 500 ml of COLUMBIA CNA AGAR

**Description:** A freeze-dried mixture for the isolation of staphylococci and streptococci.

**Direction for Columbia CNA Agar:** Suspend 42 g 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 blood and the contents of one vial of Staph/Strep Selective Supplement (SHS80004) reconstituted with 4 ml of 95% ethanol. Mix well before pouring.

#### Formula

Nalidixic acid	7,5 mg / vial
Colistin	5,0 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C

**STERILE EGG YOLK EMULSION**

25 ml - EYE80025 FOR 500 ml of AGAR  
 50 ml - EYE80050 FOR 1000 ml of AGAR  
 100 ml - EYE80100 FOR 2000 ml of AGAR

**Description:** A sterile, stabilised emulsion of egg yolk for the identification of *Clostridium*, *Bacillus* and *Staphylococcus* spp. by their lipase activity.

**Direction:** Suspend the appropriate quantity of the different agar bases in 475 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). Mix well before pouring.

**Formula**

Egg yolk	50%
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**Storage conditions:** Store in the dark, at 2-8 °C.

**STERILE EGG YOLK TELLURITE EMULSION**

25 ml - EYT80025 FOR 500 ml of BAIRD-PARKER AGAR  
 50 ml - EYT80050 FOR 1000 ml of BAIRD-PARKER AGAR  
 100 ml - EYT80100 FOR 2000 ml of BAIRD-PARKER AGAR

**Description:** A sterile, stabilised emulsion of egg yolk containing potassium tellurite for the isolation and presumptive identification of coagulase positive staphylococci.

**Direction:** Suspend 60 g Baird-Parker Agar Base, PH EUR 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.

**Formula**

Egg yolk	50%
Potassium tellurite	50 mg / 25 ml

**Storage conditions:** Store in the dark, at 2-8 °C.

**STERILE EGG YOLK POLYMYXIN (PEMBA) EMULSION**

25 ml - EYP80025-01 for 500 ml of BACILLUS CEREUS (PEMBA) AGAR  
 50 ml - EYP80050-01 for 1000 ml of BACILLUS CEREUS (PEMBA) AGAR

**Description:** A sterile, stabilised emulsion of egg yolk containing polymyxin B for the identification of *Bacillus* spp. by their lipase activity.

**Direction:** Suspend 40 g Bacillus Cereus (PEMBA) 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 Egg Yolk Polymyxin (PEMBA) Emulsion (EYP80050-01). Mix well before pouring.

**Formula**

Egg yolk	50%
Polymyxin	8 mg / 25 ml

**Storage conditions:** Store in the dark, at 2-8 °C.

**SULPHAMANDELATE SELECTIVE SUPPLEMENT  
 SUS80004**

**FOR 500 ml of BRILLIANT GREEN AGAR, MODIFIED**

**Description:** A freeze-dried mixture for the isolation of salmonellae.

**Direction:** Suspend 26,5 g Brilliant Green Agar Base, Modified 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 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**

Sodium sulphacetamide	500 mg / vial
Sodium mandelate	125 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

**STERILE EGG YOLK POLYMYXIN (PREP) EMULSION**

50 ml - EYP80050-02 for 500 ml of BACILLUS CEREUS (PREP) AGAR  
 100 ml - EYP80100-02 for 1000 ml of BACILLUS CEREUS (PREP) AGAR

**Description:** A sterile, stabilised emulsion of egg yolk containing polymyxin B for the identification of *Bacillus* spp. by their lipase activity.

**Direction:** Suspend 46 g Bacillus Cereus (PREP) Agar Base 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**

Egg yolk	50%
Polymyxin	8 mg / 50 ml

**Storage conditions:** Store in the dark, at 2-8 °C.

#### TETRATHIONATE IODINE-IODIDE SELECTIVE SUPPLEMENT TTS80010

##### FOR 500 ml of TETRATHIONATE BROTHS

**Description:** A dehydrated mixture for the preparation of tetrathionate broths.

**Direction:** Suspend the appropriate quantity of the different 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. Mix well and dispense aseptically into sterile test tubes.

**Warning!**

The medium is heat sensitive.

Do not heat after the addition of the supplement.

The complete medium should be used on the day of preparation.

**Formula**

Iodine	3,0 g / vial
Potassium iodide	2,5 g / vial

**Storage conditions:** Store in dark at 2-8 °C.

#### TODD-HEWITT SELECTIVE SUPPLEMENT THS80004

##### FOR 500 ml of SELECTIVE TODD-HEWITT BROTH

**Description:** A freeze-dried mixture for the isolation of *Streptococcus* spp.

**Direction:** Suspend 18,5 g Todd-Hewitt Broth 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 Todd-Hewitt Selective Supplement (THS80004) reconstituted with 4 ml of sterile distilled water. Mix well and dispense aseptically into sterile final containers.

**Formula**

Nalidixic acid	0,0075 mg / vial
Colistin	0,0050 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### TRIBUTYRIN SUPPLEMENT TRS80250

##### FOR 500 g TRIBUTYRIN AGAR BASE

**Description:** Tributyrin for the preparation of Tributyrin Agar.

**Direction:** Suspend 20 g Tributyrin Agar Base in one litre of distilled water. Add 10 ml of Tributyrin Supplement (TRS80250) and mix uniformly. 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 uniformly turbid gel!

**Formula**

Tributyrin	250 ml
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**Storage conditions:** Store at room temperature.

#### TRICHOMONAS SELECTIVE SUPPLEMENT TSS80004

##### for 500 ml of TRICHOMONAS MEDIA

**Description:** A freeze-dried mixture for the cultivation of *Trichomonas vaginalis*.

**Direction for Trichomonas Medium:** Suspend 18,5 g Trichomonas Medium 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 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. Dispense aseptically into sterile test tubes.

**Direction for Trichomonas (CPLM) Medium, Modified:** Suspend 17,5 g Trichomonas (CPLM) Medium Base, Modified 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. Dispense aseptically into sterile test tubes.

**Formula**

Streptomycin	500 mg / vial
Penicillin	80 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.

#### TRITON X-100 SUPPLEMENT TXS80100

##### FOR 100 litre of A-1 BROTH

**Description:** Triton X-100 for the preparation of A-1 Broth.

**Direction:** Suspend 31 g A-1 Broth Base 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	100 ml
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**Storage conditions:** Store at room temperature.

#### TTC SOLUTION, STERILE TTC80030

##### FOR 30 litre of SOME MEDIA

**Description:** A TTC solution for the preparation of some media.

**Direction:** Suspend the appropriate quantity of the different medium bases 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 if it is necessary. Cool to 50 °C and add aseptically one dose (0,5 ml) of TTC Solution, Sterile (TTC80030). Mix well before pouring.

**Formula**

2,3,5-triphenyltetrazolium chloride	5 %
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**Storage conditions:** Store in the dark, at 2-8 °C.

**TWEEN 80 SUPPLEMENT**

TWS80100 - 100 ml  
TWS80500 - 500 ml

**Description:** TWEEN 80 (Polysorbate 80) for the preparation of some media.

**Direction:** Different. See the product information of relevant media.

**Formula**

TWEEN 80, bacteriological grade	100 ml
TWEEN 80, bacteriological grade	500 ml

**Storage conditions:** Store at room temperature.



**VANCOMYCIN (3 mg) SUPPLEMENT**

VSS80004-03

FOR 500 ml of AGAR

**Description:** A freeze-dried mixture for the isolation of Legionellae.

**Direction:** Suspend 25 g 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	3 mg / vial
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**Storage conditions:** Store in the dark, at 2-8 °C.

**TYROBUTYRICUM SODIUM LACTATE SOLUTION**

SLT80140

FOR 500 g of TYROBUTYRICUM BROTH BASE

**Description:** A sodium lactate solution for the preparation of Tyrobutyricum Broth.

**Direction:** Fill up 10 ml of Tyrobutyricum Sodium Lactate Solution (SLT80140) to one litre with distilled water. Suspend 31 g of Tyrobutyricum Broth Base and heat gently to dissolve the medium completely. Dispense into final containers and sterilise by autoclaving at 121 °C for 15 minutes.

**Formula**

Sodium lactate	50%
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**Storage conditions:** Store at room temperature.

**YERSINIA (CIN) SELECTIVE SUPPLEMENT**

CIN80004

FOR 500 ml of YERSINIA AGAR

FOR 500 ml of YERSINIA BROTH

**Description:** A freeze-dried mixture for the isolation of *Yersinia enterocolitica*.

**Direction:** Suspend 30 g Yersinia Agar Base or 16,5 g Yersinia Broth Base in 500 ml of distilled water and heat with frequent agitation until the medium boils well (in case of agar) or heat gently to dissolve the medium completely (in case of broth). 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.

**Formula**

Cefsulodin	7,50 mg / vial
Irgasan	2,00 mg / vial
Novobiocin	1,25 mg / vial

**Storage conditions:** Store in the dark, at 2-8 °C.



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