



Technical Data

Agar powder, Bacteriological Grade

GRM026

Agar Powder is specifically produced for use in bacteriological culture media and plant tissue culture media, where clarity and compatibility are not of prime importance. It is used in culture media in following concentrations : For Routine Media: 1.4 to 1.6% ,For Soft Media: 0.5% ,For Semi-solid Media: 0.15%, For Media with Reduced Oxygen Tension: 0.05 - 0.1% ,For Extra Hard Gels, for inhibiting swarming of Proteus species: 2.5% - 3.0%

Principle And Interpretation

Agar is prepared from species of red seaweeds specially selected for their Agar gel production, using stainless steel equipment, observing good manufacturing practice. It is a Bacteriological grade powder with high mineral / metal content and is advantageous to use in certain media. It is a cream coloured powder having particle size that can pass through 40 ASTM Screen. When suspended in cold water, it swells but does not dissolve. However, it readily dissolves in boiling water and solubility is facilitated by soaking the powder in cold water.

Quality Control

Appearance

Cream coloured powder. homogenous free flowing powder

Solubility

Freely soluble in hot water at temperatures above 85°C. Insoluble cold water.

Clarity

A firm solid, clear to slightly opalescent gel is formed at a concentration of 1.5% at 38-40°C.

Dye Diffusion

Agar dye diffusion :- 18-20mm

Reaction

Reaction of 1.5% w/v aqueous solution at 25 °C
pH : 6.50 - 7.50

Identification test

As per method specified in USP 37,NF32;

A: Infrared absorption.

B: With Iodine, some fragments of agar appear bluish black, with some areas reddish to violet.

C: Agar forms a clear liquid, which congeals at 30 to 39°C to form a firm resilient gel, which does not melt below 80°C.

Microbial Load:

Total aerobic microbial count (cfu/gm)

By plate method when incubated at 30-35°C for not less than 3 days.

Bacterial Count : <= 1000 CFU/gram

Total Yeast and mould count (cfu/gm)

By plate method when incubated at 20-25°C for not less than 5 days.

Yeast & mould Count : <= 100 CFU/gram

Test for Pathogens

1. *Escherichia coli*-Negative in 10 gms of sample 2. *Salmonella* species-Negative in 10 gms of sample 3. *Pseudomonas aeruginosa*-Negative in 10 gms of sample 4. *Staphylococcus aureus*- Negative in 10 gms of sample 5. *Candida albicans*- Negative in 10 gms of sample 6. *Clostridia*- Negative in 10 gms of sample

Chemical Analysis

Gelling temperature

38-40°C

Melting temperature

>=85°C

Water(KF)

<=20%

Calcium

<= 0.1%

Heavy metals (as Pb)

<= 40 ppm

Lead

<=10 ppm

Arsenic(As)

<=3 ppm

Sulphated ash

<=6.5%

Acid insoluble Matter (on dry basis)

<=0.5%

Foreign organic matter

<=1.0%

Foreign insoluble matter

<=15 mg in 7.5 gm of Agar

Gelling Strength>= 800 g/cm²**Test for Water absorption**

As per method specified in USP 37,NF 32, NMT 75 ml of water is absorbed by 5.0 g of agar

Test for Gelatin

As per method specified in USP 37,NF 32, No formation of yellow precipitate

Test for Starch

As per method specified in USP 37,NF 32 ,No Formation of blue colour on addition of iodine

Growth Promotion Test

As per method specified in USP 37,NF32

Cultural response

Cultural response observed after an incubation at 35-37°C for 18-24 hours by preparing Nutrient Agar (M001) using Agar Powder, Bacteriological as an ingredient.

Cultural Response

Organism	Growth
<i>Escherichia coli</i> ATCC 25922	Luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	Luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	Luxuriant
<i>Salmonella</i> Typhi ATCC 6539	Luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	Luxuriant

Storage and Shelf Life

Store below 30°C. Use before expiry date on the label.

**Disclaimer :**

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

p-Dimethylaminobenzaldehyde

GRM809

Product Identifier

CAS No.	:	100-10-7
EC No.	:	202-819-0
Molecular Formula	:	C ₉ H ₁₁ NO
Molecular Weight	:	149.19
Synonym	:	Ehrlich's reagent
HS Code	:	2922 39 00
Storage	:	Below 30°C
Shelf life	:	4 years

Technical Specification

Appearance	:	White to beige to green crystals or powder
Solubility	:	33.3 mg soluble in 1 mL of alcohol
FTIR	:	Matches with the standard pattern.
Melting range	:	70 - 75°C
Assay (NT/GC)	:	99.00 - 103.00%

Safety Information

UN No.	:	Not dangerous goods
Class	:	-
Packing Group	:	-
RTECS	:	CU5775000
WGK	:	1

RM1635 Diphenylboric acid-2-aminoethyl ester**Product Number****Packing**

RM1635 : 5G

Product Information

Product Code : RM1635
Product Name : Diphenylboric acid-2-aminoethyl ester
Synonym : 2-Aminoethyl diphenylborinate
Molecular Formula : C₁₄H₁₆B N O
Molecular Weight : 225.09
CAS No. : 524-95-8
EC No. : 208-366-5
HS Code : 2931 90 90
Shelf Life : 4 years

Technical Specification

Appearance : White to beige crystals or powder
Solubility : 33.3 mg soluble in 1 mL of ethanol
FTIR (KBr disc) : Matches with the standard pattern
Melting range : 192 - 194°C
Assay (NT) : 97.00 - 102.50 %

Risk and Safety Information

S-Phrase(s) : 22-24/25
WGK : 3
Storage Temperature(°C) : Store below 30°C

Transport Information

Marine Pollutant : No
ADR/RID : Not Dangerous Goods
IMDG : Not Dangerous Goods
IATA : Not Dangerous Goods

LoSera™ RPMI-1640

With L-Alanyl-L-Glutamine and Sodium bicarbonate

1X Liquid Cell Culture Medium requiring reduced serum supplementation

Product Code: RSL011G

Product Description :

LoSera™ media are based on the classical formulations supplemented with insulin, transferrin and other advanced nutrients. The additional nutrients help in reducing the percentage of serum required to grow most of the common cell lines. The percentage of serum reduction may vary with type of cell line used. For non-fastidious cell lines serum can be reduced from 10% to as low as 1%. For fastidious cell lines serum usage can be reduced from 10% to 2.5%. LoSera™ medium can be used without prior adaptation and sub cultured using normal procedures. Reduced serum supplementation improves the reproducibility of experimental results by decreasing the variability caused due to undefined serum constituents. It also facilitates down regulation process in bioassays and in purification process of culture products.

RSL011G is LoSera™ RPMI-1640 with sodium bicarbonate and L-alanyl-L-glutamine. Users are advised to review the literature for recommendations regarding medium supplementation and physiological growth requirements specific for different cell lines.

Composition :

Ingredients	mg/L
INORGANIC SALTS	
Calcium nitrate tetrahydrate	100.000
Magnesium sulphate anhydrous	48.840
Potassium chloride	400.000
Sodium bicarbonate	2000.000
Sodium chloride	6000.000
Sodium dihydrogen phosphate anhydrous	800.000
AMINO ACIDS	
Glycine	10.000
L-Alanyl-L-Glutamine	446.000
L-Arginine hydrochloride	241.000
L-Asparagine	50.000
L-Aspartic acid	20.000
L-Cystine dihydrochloride	65.200
L-Glutamic acid	20.000

L-Histidine hydrochloride monohydrate	20.960
L-Hydroxyproline	20.000
L-Isoleucine	50.000
L-Leucine	50.000
L-Lysine hydrochloride	40.000
L-Methionine	15.000
L-Phenylalanine	15.000
L-Proline	20.000
L-Serine	30.000
L-Threonine	20.000
L-Tryptophan	5.000
L-Tyrosine disodium salt	28.830
L-Valine	20.000

VITAMINS

Choline chloride	3.000
D-Biotin	0.200
D-Ca-Pantothenate	0.250
Folic acid	1.000
Niacinamide	1.000
Pyridoxine hydrochloride	1.000
Riboflavin	0.200
Thiamine hydrochloride	1.000
Vitamin B12	0.005
i-Inositol	35.000
p-Amino benzoic acid (PABA)	1.000

OTHERS

D-Glucose	2000.000
Glutathione reduced	1.000
Growth Supplement mix	Proprietary
Phenol red sodium salt	5.300

Directions :

Recommendations for use with LoSera™ Media:

1. LoSera™ media have been optimized at 2.5% serum concentration for a broad range of cell culture applications.

Recommended concentrations of serum using LoSera™ media ranges from 1-5%. However the concentration of serum used may need to be adjusted for specific cell types or applications to achieve optimal results. Titration of FBS concentration is recommended to determine maximum serum reduction.

2. In case of antibiotics being used to control contamination, it is recommended to reduce the amount of antibiotics in proportion to the amount of serum reduced.

Material required but not provided :

Fetal Bovine Serum (RM1112/RM10432)

Quality Control:

Appearance

Orangish red colored, clear solution.

pH

7.00 -7.60

Osmolality in mOsm/Kg H₂O

290.00 -330.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Cultural Response

The growth promotion capacity of the medium is assessed qualitatively by analyzing the cells for the morphology and quantitatively by estimating the cell counts and comparing it with a control medium through minimum three subcultures.

Endotoxin Content

NMT 5EU/ml

Storage and Shelf Life:

Store at 2-8°C away from bright light.

Shelf life is 12 months.

Use before expiry date given on the product label.

Revision : 1 / 2012

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

Alcian blue 8GX, Cell Culture Tested

TC359

Product Identifier

CAS No.	:	33864-99-2
EC No.	:	251-705-7
Molecular Formula	:	$C_{56}H_{68}Cl_4CuN_{16}S_4$
Molecular Weight	:	1298.86
HS Code	:	3212 90 90
Storage	:	Below 30°C
Shelf life	:	TC359

Technical Specification

Appearance	:	Purple to blue to dark blue with a green cast crystals or powder
Solubility	:	Clear dark blue solution at 0.002% solution in water.
Absorption maxima (20 ppm in water)	:	610 - 620 nm
Dye content	:	50%

Safety Information

UN No.	:	Not dangerous
Class	:	-
Packing Group	:	
RTECS	:	Not available
WGK	:	3

Dimethyl Sulfoxide (DMSO)

Cell Culture Tested
Hybridoma Tested
Sterile Filtered

Product Code: TC433

Product Description:

Molecular Weight: 78.13
Molecular Formula: C_2H_6OS
CAS No: 67-68-5
Synonym: DMSO, Methyl sulfoxide

Dimethyl sulfoxide (DMSO) is one of the strongest organic solvents that exhibits complete miscibility in water and most organic polar liquids. It is produced by oxidation of dimethyl sulfide with oxygen or nitrogen dioxide. It has both hydrophobic and hydrophilic properties depending on temperature.

It plays an important role in sample management and drug designing operations because of its ability to dissolve different kinds of compounds. It is a common ligand in organic chemistry and used as a mild oxidant in organic synthesis. DMSO is also used in Polymerase chain reaction to reduce the formation of secondary structures of DNA template and primers.

DMSO is widely used in cell culture as a cryoprotective agent for cryopreservation of animal cells and tissues, human embryos, blood cells. It prevents formation of ice crystals during freezing process and prevents cell damage. It is generally used at 10% concentration (v/v) in cell freezing medium. However, it has been used successfully at a concentration as low as 5% (v/v) for many cell lines. Use of lower concentration of DMSO has the benefit of quicker post-thaw removal of this toxic reagent from cells upon dilution with growth medium.

Apart from its utility in cryopreservation, DMSO has also been used for induction of cell differentiation.

DMSO can be dangerous because of its solvent power. Hence, the materials (containers, filters, syringes, tips, pipettes etc.) that come in contact with DMSO should be DMSO compatible. Consumables and accessories made up of polypropylene, polymethylpentene, nylon, teflon, FEP, LDPE, HDPE, PPCO (polypropylene copolymer) are completely DMSO-compatible whereas those of polystyrene, ECTFE/ETFE are moderately DMSO compatible. Polysulfone, PVC tubings and polycarbonate materials are incompatible with DMSO hence should not be brought in contact with DMSO.

For filter sterilization of DMSO, teflon or nylon membrane filters are recommended. Cellulose acetate membranes should not be used.

TC433 is filter sterilized hybridoma tested DMSO. It has been tested for cryopreservation of hybridoma cell lines.

Directions for Use:

Precautions:

DMSO can penetrate many synthetic and natural membranes including skin and rubber gloves. Consequently any potentially harmful substances in regular use (e.g. carcinogens) may also be carried into the circulation through skin and even through rubber gloves. DMSO should always be handled with precautions, particularly in presence of toxic substances.

Quality Control:

Appearance

Clear colourless liquid

pH at 25°C

7.20 - 7.80

Cell Culture Test

Passes

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification

Performance test

Performance test is done by freezing cells and doing a viability assessment after thawing and comparing with a control medium

Storage and Shelf Life:

Store at room temperature away from bright light.

Shelf life is 48 months.

Use before expiry date given on the product label.

Revision No.: 01/ 2021

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt. Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.