

CM 22024 - MANNITOL SALT AGAR (as per USP/BP/EP/JP/IP)

INTENDED USE

For selective isolation and enumeration of *Staphylococci* species.

PRODUCT SUMMARY AND EXPLANATION

Staphylococci have the unique ability of growing on a high salt containing media. Isolation of coagulase-positive staphylococci on Phenol Red Mannitol Agar supplemented with 7.5% NaCl was studied by Chapman. The resulting Mannitol Salt Agar Base is recommended for the isolation of coagulase-positive staphylococci from cosmetics, milk, food and other specimens. It is also used in the performance of microbial limit tests for the selective isolation of *Staphylococcus*. The formulation is in accordance with the harmonization of USP/EP/BP/JP/IP.

COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	75.000
Agar	15.000
D-Mannitol	10.000
Peptic digest of animal tissue	5.000
Pancreatic digest of casein	5.000
Beef extract	1.000
Phenol red	0.025










PRINCIPLE

The medium contains Beef extract, Pancreatic digest of casein and Peptic digest of animal tissue which makes it very nutritious as they provide carbon, nitrogen compounds, long chain amino acids, vitamins and other essential growth factors and trace nutrients. Bacteria that grow in the presence of a high salt concentration and ferment mannitol produce acid products, turning the phenol red pH indicator from red to yellow. Mannitol is the fermentable carbohydrate which leads to acid production, detected by Phenol red indicator. *Staphylococcus aureus* ferment mannitol and produce yellow coloured colonies surrounded by yellow zones. The lipase activity can be visualized as yellow opaque zones around the colonies. Coagulase negative strains of *Staphylococcus aureus* are usually mannitol non-fermenters and therefore produce pink to red colonies surrounded by red-purple zones. Presumptive coagulase-positive yellow colonies of *Staphylococcus aureus* should be confirmed by performing the coagulase test. Agar is the solidifying agent. The additional property of lipase activity of *Staphylococcus aureus* can be detected by the addition of the Egg Yolk Emulsion (TS 002). The lipase activity can be visualized as yellow opaque zones around the colonies.

INSTRUCTION FOR USE

- Dissolve 111.02 grams of the medium in 1000 ml distilled water.
- Gently heat to boiling with gentle swirling and dissolve the medium completely.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool to 45 - 50°C.
- If desired, add 5% v/v Egg Yolk Emulsion (TS 002).
- Mix well and pour into sterile Petri plates



 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For professional use only.**