Ausamics PTY LTD
31 Longview CT, Thomastown, VIC 3074, Australia
ABN: 56676640467
www.ausamics.com.au
support@ausamics.com
Phone: +61412520598

TECHNICAL DATA SHEET (TDS)

Product: Mannitol Salt Agar (MSA)

Selective and Differential Medium for Staphylococcus aureus

Catalog Number: AS-1288

HS Code: 3821.00.00

Issue Date: 25 February 2026

1. Product Overview

Mannitol Salt Agar (MSA) is a selective and differential solid medium for the isolation and presumptive identification of Staphylococcus aureus from clinical, food, cosmetic, and environmental samples. The high salt concentration inhibits most competing flora, while mannitol fermentation enables differentiation.

2. Principle of the Medium

7.5% sodium chloride provides selectivity for staphylococci. Mannitol serves as a fermentable carbohydrate and phenol red functions as a pH indicator. Mannitol fermentation produces acid, resulting in a yellow color change.

3. Typical Composition (per litre)

PEPTONE / MEAT EXTRACT	10.0 G
SODIUM CHLORIDE	75.0 g
D-MANNITOL	10.0 g
PHENOL RED	0.025 g
AGAR	15.0 g
FINAL PH (25°C)	7.4 ± 0.2

4. Preparation

Suspend 110.025 g in 1 L purified water.

Heat with agitation and boil for 1 minute to dissolve completely.

Avoid excessive overheating.

Cool to 45–50 °C and pour into sterile Petri dishes.

5. Incubation

Incubate at 35–37 °C for 24–48 hours.

Examine at both 24 and 48 hours.

6. Typical Colony Appearance

Staphylococcus aureus: Yellow colonies with yellow halo (mannitol positive).

Coagulase-negative staphylococci: Red/pink colonies without halo.

Other organisms: Inhibited or minimal growth.

7. Applications

• ISO 6888-1 enumeration of S. aureus in foods

• Clinical specimen screening

• Cosmetic and pharmaceutical microbiology

• Nasal carrier screening

8. Storage & Stability

Dehydrated medium: Store at 2–25 °C in a dry, tightly sealed container.

Prepared plates: Store at 2–8 °C protected from light.

Use prepared plates within 4 weeks for optimal performance.

9. Intended Use

For laboratory microbiology use only.

Not for therapeutic use.