

## PRODUCT SPECIFICATION SHEET

### Salt Meat Broth (DM1378)

#### Intended Use

Salt Meat Broth (DM1378) is recommended for the isolation of staphylococci from heavily contaminated samples, and for isolation of *halophilic micrococci* which contaminate hides and raw salt.

#### Product Summary and Explanation

*Staphylococcus aureus* is a gram positive, facultative anaerobe which is tolerant to high concentration of sodium chloride that inhibits most other bacteria.<sup>(1)</sup> Salt Meat Broth is an enrichment medium used for the isolation of halophilic *staphylococci* from contaminated samples such as faeces particularly in case of food poisoning. This medium is sensitive because it can detect even low numbers of staphylococci from samples having large proportions of heterogeneous microbial flora.<sup>(2, 3)</sup> High concentration of sodium chloride makes the medium selective for staphylococci. This medium can also be used to cultivate some halophilic micrococci associated with hides and raw salt supplies. *Staphylococci* growing on this medium should be first subcultured on a medium containing less salt such as Blood Agar as they cannot be directly tested for coagulase production.

#### Principles of the Procedure

Salt Meat Broth contains peptic digest of animal tissue, beef extract and neutral ox-heart tissue which provide nitrogenous and carbonaceous growth factors, and other essential nutrients required for growth and metabolism. Sodium chloride helps to maintain osmotic equilibrium.

#### Formula / Liter

Ingredients	Gms / Liter
Beef extract	10.00
Peptic digest of animal tissue	10.00
Neutral ox-heart tissue	30.00
Sodium chloride	100.00
Final pH: 7.6 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

#### Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

#### Directions

1. Suspend 15 grams of the medium in 100 ml of distilled water. Soak for 5 minutes.
2. Heat if necessary to dissolve the medium completely.
3. Disperse and dispense in a 5/8 inch diameter test tube.
4. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

#### Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow coloured clear solution without any precipitate
Reaction of 15% Solution	pH : 7.6 ± 0.2 at 25°C
Gel Strength	Not Applicable

**Expected Cultural Response:** Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

Sr. No.	Organisms	Results to be achieved	
		Inoculum (CFU)	Growth
1.	<i>Escherichia coli</i> ATCC 25922	≥10 <sup>3</sup>	inhibited
2.	<i>Proteus vulgaris</i> ATCC 13315	≥10 <sup>3</sup>	inhibited
3.	<i>Staphylococcus aureus</i> ATCC 25923	50 -100	good-luxuriant

The organisms listed are the minimum that should be used for quality control testing.



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### Test Procedure

1. Emulsify the food specimen in Peptone Water (DM192) and inoculate in Salt Meat Broth.
2. After an incubation at 35°C for 24 to 48 hours, subculture on Mannitol Salt Agar (DM160) or Staphylococcus Medium No. 110 (DM249).
3. Refer appropriate references for standard test procedures.

### Results

Refer appropriate references and test procedures for interpretation of results.

### Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

### Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

### Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

### Packaging

**Product Name : Salt Meat Broth**

**Product Code : DM1378**

**Available Pack sizes : 500gm**

### References

1. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14<sup>th</sup> Edition, Churchill Livingstone.
2. Maitland H. B., and Martyn G., 1948, J. Path. Bacteriol., 60:553.
3. Fairbrother R. W. and Southall J. E., 1950, Mon. Bull. Min. Hlth. Publ. Hlth. Serv., 9:170.

### Further Information

For further information please contact your local MICROMASTER Representative.



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