TM 2218 - MSM BROTH BASE

INTENDED USE
Recommended as an enrichment medium for Salmonella species.

PRODUCT SUMMARY AND EXPLANATION
MSM Broth Base is an enrichment medium free from inhibitors and is well buffered and provides conditions for recovery of injured cells. Salmonella infections are zoonotic and can be transferred between humans and non-human animals. In humans, Salmonella are the cause of two diseases called salmonellosis: enteric fever (typhoid), resulting from bacterial invasion of the bloodstream, and acute gastroenteritis, resulting from a foodborne infection/intoxication. It was noted by Edel and Kampelmacher that sub-lethal injury to *Salmonella* may occur due to food preservation techniques involving heat, desiccation, high osmotic pressure, preservatives or pH changes.

COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	0.500
Potassium dihydrogen phosphate	3.000
Magnesium sulphate	0.120
Calcium chloride dihydrate	0.013
Yeast extract	3.000
Disodium hydrogen phosphate	6.000

PRINCIPLE
The medium consists of Sodium chloride which maintains the osmotic balance and phosphates buffer the medium. The phosphate buffer system prevents bacterial damage due to changes in the pH of the medium. Yeast extract provides carbon and nitrogen source.

INSTRUCTION FOR USE
- Dissolve 12.63 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121ºC) for 15 minutes.
- Aseptically add the contents of one vial of Growth Supplement I for MSM and one vial of Growth Supplement II for MSM.
- Mix well and dispense into sterile tubes or flasks as desired.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured, clear solution without any precipitate.
pH (at 25°C) : 7.4±0.2

INTERPRETATION
Cultural characteristics observe with added Growth Supplement I for MSM and Growth Supplement II for MSM after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Salmonella Enteritidis	13076	50-100	Good-luxuriant	>=50%	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Good-luxuriant	>=50%	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Good-luxuriant	>=50%	35-37°C	18-24 Hours

PACKAGING:
In pack size of 100 gm and 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
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3. Edel and Kampelmacher, 1973, Bull. W.H.O., 48:167.
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
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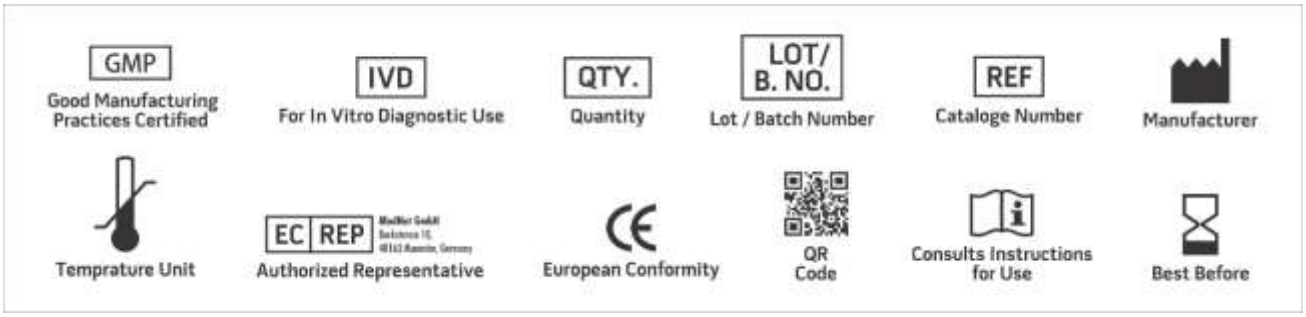
8. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.



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

***For Lab Use Only**

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