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MSRV (Salmonella) Medium

DM440

Intended Use
A sensitive medium for the confirmation of *Salmonella* spp. by motility detection.

Contents
See pack label.

Formulation*

Material:	Concentration in medium:
Peptone mixture	8.25g/litre
Yeast extract	0.92g/litre
Sodium chloride	7.33g/litre
Potassium dihydrogen phosphate	1.47g/litre
Magnesium chloride	12.37g/litre
Malachite green oxalate	0.037g/litre
Agar	2.57g/litre
Final pH: 5.5 ± 0.2	

Storage and shelf life
All dehydrated culture media containers should be kept tightly closed and stored in a dry place at 10 to 25°C until the expiry date shown on the pack label.

Precautions
For *in vitro* diagnostic use only. Observe approved hazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilise all biohazard waste before disposal. Refer to Product Safety Data sheet (available on request or via MAST® website).

Materials required but not provided
Standard microbiological supplies and equipment such as loops, MAST® selective supplements, swabs, applicator sticks, incinerators and incubators, etc., as well as serological and biochemical reagents and additives such as blood.

Procedure
1. Refer to pack label for quantities and volumes required. Prepare MAST® MSRV Medium (DM440D) by suspending the powder in distilled or deionised water. For sachet packs, dissolve the entire contents of the sachet in the volume shown on the label.
2. Allow to stand for approximately 15 minutes and bring to the boil until completely dissolved. DO NOT AUTOCLAVE.
3. Allow to cool to 50 to 55°C, and hold at this temperature in a water bath.
4. For a more selective medium, add Novobiocin to a final concentration in the medium of 20mg/L, pour culture plates (15 to 20mL per plate) and allow to set.
5. Prepared culture plates may be used immediately or stored in an upright position in plastic bags at 2 to 8°C for up to one week before use.
6. Inoculate three drops (approximately 0.1mL each) of an enriched culture in separate spots on the surface of a plate.
7. Allow the spots of pre-enrichment broth to air-dry for 15 to 30 minutes without disturbing the plate. Do not over-dry. Incubate aerobically in an upright position at 42°C for 18 to 24 hours.
8. For plates not showing migration, where the medium remains blue-green around the inoculation spots, re-incubated for a further 18 to 24 hours.

Interpretation of results
After incubation record growth of organisms. *Salmonella* spp. are able to migrate through the semi-solid selective medium ahead of competing organisms, producing opaque halos of growth. Suspected salmonellae should be confirmed by slide agglutination or biochemical methods using inoculum taken from the edge of the growth.

Quality control
Check for signs of deterioration. Quality control must be performed with at least one organism to demonstrate expected performance. Do not use the product if the result with the control organism is incorrect. The list below illustrates a range of performance control strains which the end user can easily obtain.

Test Organisms	Result
Salmonella typhimurium ATCC® 14028	Growth + Migration
Salmonella enteritidis ATCC® 13076	Growth + Migration
Escherichia coli ATCC® 25922	No Growth

Limitations of use
The medium is not suitable for the detection of non-motile strains of *Salmonella* (incidence <0.1%). If the presence of non-motile *Salmonella* is suspected the pre-enrichment culture should also be plated onto a selective agar medium.

References
Bibliography available on request.

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*Formulation may change to meet performance criteria