



PRODUCT SPECIFICATION SHEET

HS Medium (DM783)

Intended Use

HS Medium (DM783) is recommended for cultivation of aerobic and anaerobic bacteria and sterility testing.

Product Summary and Explanation

Anaerobic bacteria are the ones which do not require oxygen for growth. Anaerobic bacteria are widely found in soil, marshes, lake and river sediments, oceans, sewage, foods and animals. Also, anaerobic bacteria normally are commonly present in the oral cavity around the teeth and in the gastrointestinal tract (especially in the colon) of humans. These anaerobic habitats mostly have both a low oxygen tension and reduced Eh, as a result of the metabolic activity of microorganisms that consume oxygen through respiration. Anaerobic conditions are maintained in the environment if the oxygen is not replaced. The media used for recovering anaerobes from specimen should include non-selective, selective and enrichment types. Bonnel and Raby formulated HS Medium for use in sterility testing.⁽¹⁾ This medium is analogous to Fluid Thioglycollate Medium (DM263) where sodium hydrosulphite is replaced with sodium thioglycollate, in the latter, to obtain oxidized and reduced conditions which are suitable for the growth of aerobes as well as anaerobes.^(1,2) Bonnel and Raby used HS Medium for control tests on blood products and for isolation of *Corynebacterium*, Streptococci, Staphylococci, enteric bacilli, *Neisseria*, *Clostridia* etc. HS medium can also be used for the sterility testing of biological and pharmaceutical products.

Principles of the Procedure

HS Medium contains casein enzymic hydrolysate and yeast extract which provides carbon, sulphur, amino acids and minerals essential for bacterial metabolism. Sodium hydrosulphite helps to create anaerobic atmosphere, as it is an oxygen scavenger. Sodium chloride helps to maintain the osmotic equilibrium of the medium. Dextrose is the fermentable carbohydrate and resazurin is the redox indicator dye.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	15.00
Yeast extract	5.00
Sodium hydrosulphite	0.50
Sodium chloride	2.50
Dextrose	5.50
Resazurin	0.001
Agar	1.00
Final pH 7.1±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.
3. If more than the upper one-third of the medium has acquired a pink colour, the medium may be restored once by heating in a water bath or in free flowing steam until the pink colour disappears.

Directions

1. Suspend 29.5 grams of the medium in one liter of distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.





PRODUCT SPECIFICATION SHEET

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Light straw coloured, clear to slightly opalescent solution with upper 10% or less medium having pinkish tinge on standing
Reaction of 2.95% Solution	pH : 7.1 ± 0.2 at 25°C
Gel Strength	Not Applicable

Expected Cultural Response: Cultural characteristics observed after an incubation i) bacteria at 35-37°C ii) Clostridium species anaerobically for 18-48 hours.

Sr. No.	Organisms	Results to be achieved	
		Inoculum (CFU)	Growth
1.	<i>Clostridium perfringens</i> ATCC 12924	50 -100	good-luxuriant
2.	<i>Corynebacterium diphtheriae</i> ATCC 11913	50 -100	good-luxuriant
3.	<i>Enterobacter aerogenes</i> ATCC 13048	50 -100	good-luxuriant
4.	<i>Staphylococcus aureus</i> ATCC 25923	50 -100	good-luxuriant
5.	<i>Streptococcus pyogenes</i> ATCC 19615	50 -100	good-luxuriant

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

Test Procedure

Refer to appropriate references for standard test procedures.

Results

Refer to 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 HS Medium

Product Code : DM783

Available Pack sizes : 500gm

References

1. Bonnel and Raby, 1958, Proc. 7th Cong. Int. Soc. Blood Transfusion, 317, Rome.
2. WHO, 1960, Technical Report Series No. 200, WHO, Geneva.P.





PRODUCT SPECIFICATION SHEET

Further Information

For further information please contact your local MICROMASTER Representative.



MICROMASTER LABORATORIES PRIVATE LIMITED

DM783PSS,QAD/FR/024,Rev.00/01.01.2018

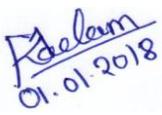
Unit 38/39, Kalpataru Industrial Estate,

Off G.B. Road, Near 'R-Mall', Thane (W) - 400607. M.S. INDIA.

Ph: +91-22-25895505, 4760, 4681. Cell: 9320126789.

Email: micromaster@micromasterlab.com

sales@micromasterlab.com

Prepared By	Checked By	Approved By
 01.01.2018	 01.01.2018	 01.01.2018
Microbiologist	Head Quality Control	Head Quality Assurance

Disclaimer :

All Products conform exclusively to the information contained in this and other related Micromaster Publications. Users must ensure that the product(s) is appropriate for their application, prior to use. The information published in this publication is based on research and development work carried out in our laboratory and is to the best of our knowledge true and accurate. Micromaster Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are intended for laboratory, diagnostic, research or further manufacturing use only and not for human or animal or therapeutic use, unless otherwise specified. Statements included herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

