



Technical Data

ISP Medium No. 3

M358

Intended Use:

Recommended for cultivation and characterization of *Streptomyces* species as per International *Streptomyces* Project.

Composition**

Ingredients	Gms / Litre
Oat Meal	20.000
Agar	18.000
Trace salts,	-
Ferric sulphate heptahydrate	0.001
Manganese chloride tetrahydrate	0.001
Zinc sulphate heptahydrate	0.001
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 38.0 grams (equivalent weight of dehydrated medium per litre) in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and mix intermittently while pouring into sterile Petri plates for even distribution of oatmeal.

Principle And Interpretation

ISP Medium No. 3 is formulated based on the original formula of Shirling and Gottlieb (1). The medium is often referred to as Oat Meal Agar.

Oatmeal provides the necessary nutrients for growth of *Streptomyces*. The trace salts solution that constitutes of ferric sulphate, manganese chloride and zinc sulphate provide the essential electrolytes and minerals. The concentration of these salts used per litre in the medium is 1.0 mg (concentration of 0.1 mg%). Inoculate ISP Medium No.1 (M356) with the test organisms and incubate at 30°C ± 0.2 for upto 96 hours. Inoculate the plates of ISP Medium No. 3 by streaking, using 0.1 ml of this test culture inoculum.

Type of specimen

Food samples

Specimen Collection and Handling:

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (3). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical tests must be carried out for confirmation.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to beige homogeneous free flowing powder

Gelling

Firm, comparable with 1.8% Agar gel

Colour and Clarity of prepared medium

Very light amber coloured opalescent gel with precipitation forms in Petri plates.

Reaction

Reaction of 3.8% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours.

Organism**Growth**

Streptomyces achromogenes ATCC 12767

good-luxuriant

Streptomyces albus subsp *albus* ATCC 3004

good-luxuriant

Streptomyces lavendulae ATCC 8664

good-luxuriant

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
2. 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.
3. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.
4. Sherling E.B. and Gotlieb., 1966, International J. Systemic Bacteriol., 16:3.

Revision : 02 / 2021

Disclaimer :

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