

Product Data Sheet

ISP MEDIUM NO. 4 (INORGANIC SALT STARCH AGAR)

Product No. GB-DCM-00269-1A

INTENDED USE

For cultivation and characterization of Streptomyces as per International Streptomyces Project.

Product Description

ISP Medium No. 4 is formulated based on the original formula of Shirling and Gottlieb and is used for characterization of Streptomyces species.

COMPOSITION

Ingredients	Gms / Ltr
Starch, soluble	10.000
Dipotassium hydrogen phosphate	1.000
Magnesium sulphate heptahydrate	1.000
Sodium chloride	1.000
Ammonium sulphate	2.000
Calcium carbonate	2.000
Ferrous sulphate heptahydrate	0.001
Manganous chloride, heptahydrate	0.001
Zinc sulphate heptahydrate	0.001
Agar	20.000

PRINCIPLE

Starch provides the energy source. Dipotassium hydrogen phosphate acts as buffering system while sodium chloride maintains the osmotic equilibrium of the medium. The salts provide essential electrolytes and minerals. Inoculate the plates by streaking, using 0.1 ml of the test culture enriched in ISP Medium No. 1.

INSTRUCTION FOR USE

- Dissolve 37 grams of dehydrated medium in 1000 ml purified/distilled water.
- Heat just to boiling.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Agitate constantly while pouring into sterile Petri plates to obtain a uniform suspension. Note: Due to presence of calcium carbonate, the medium forms opalescent solution with white precipitate.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Light yellow to brownish yellow homogeneous free flowing powder.

Appearance of prepared medium: Yellow coloured, slightly opalescent gel forms in Petri plates.

PH (at 25°C): 7.1±0.

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery	Incubation Temperature	Incubation Period
Streptomyces achromogenes	12767	50-100	Good-luxuriant	≥70%	30-32°C	48-72 Hours
Streptomyces albus subsp albus	3004	50-100	Good-luxuriant	≥70%	30-32°C	48-72 Hours
Streptomyces lavendulae	8664	50-100	Good-luxuriant	≥70%	30-32°C	48-72 Hours

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.

This product is for research use only.