

# TM 858 - SOIL EXTRACT AGAR

#### **INTENDED USE**

For isolation of soil microorganisms.

#### **PRODUCT SUMMARY AND EXPLANATION**

Soil Extract Agar is a medium used for isolating soil microorganisms. The fertility of soil depends not only on the chemical composition but also on the qualitative and quantitative nature of microorganisms inhabiting it. Microorganisms inhabiting soil can be classified into bacteria, actinomycetes, fungi, algae and protozoa.

## COMPOSITION

Ingredients	Gms / Ltr		
Glucose	1.000		
Dipotassium phosphate	0.500		
Soil extract	17.750		
Agar	15.000		

#### PRINCIPLE

Soil is a natural medium for many organisms as they provide a perennial source of organic matter and other sources of carbon, nitrogen, minerals and vitamins required for their growth.

Soil extract provides all the essential nutrients required for growth of soil microorganisms. Glucose serves as readily metabolizable carbon source whereas dipotassium phosphate buffers the medium.

# **INSTRUCTION FOR USE**

- Dissolve 34.25 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

# QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light amber coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 6.8±0.2

#### **INTERPRETATION**

Cultural characteristics observed after an incubation.

Microorganism	ATCC	lnoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Aspergillus brasiliensis	16404	10-100	Luxuriant	>=70%	30°C	Upto 4 days

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2



Candida albicans	10231	10-100	Luxuriant	>=70%	30°C	Upto 4 days
Nocardia asteroides	19247	50-100	Luxuriant	>=70%	30°C	Upto 4 days
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	30°C	Upto 4 days
Saccharomyces cerevisiae	9763	10-100	Luxuriant	>=70%	30°C	Upto 4 days

# PACKAGING:

In pack size of 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. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, p-251., Oxford and IBH Publishing Co., New Delhi.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only Revision: 08 Nov., 2019