Technical Information

Algae Culture Agar

Product Code: DM 1343

Application: - Algae Culture Agar is recommended for the isolation and cultivation of algae from soil, water and sewage. Also for carrying stock cultures of algae used in the bioassay of algicidal chemicals.

Composition**

Ingredients	Gms / Litre
Sodium nitrate	1.000
Dipotassium phosphate	0.250
Magnesium sulphate	0.5 13
Ammonium chloride	0.050
Calcium chloride	0.058
Ferric chloride	0.003
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Algae (singular alga) encompass several groups of relatively simple living aquatic organisms that capture light energy through photosynthesis, and convert inorganic substances into organic matter. Algae is found both single-cell organisms & multicellular organisms, some with fairly complex differentiated form and (if marine) called seaweeds. Algae are mostly found in damp places or water bodies and thus are common in terrestrial as well as aquatic environments. Various algae play significant roles in aquatic ecology. Algae are used by humans in a number of ways. Because many species are aquatic and microscopic, they are cultured in clear tanks or ponds and are or used to treat effluents pumped through ponds [1, 2]. Algae Culture Agar is recommended for the isolation and cultivation of algae from soil, water and sewage. A slight modification of the formula of Allen [3] is used for maintaining stock cultures of algae and bioassay of algaecide chemicals. Even Fitzgerald [4] recommended this medium for the cultivation of algae.

The medium provides all necessary nutrients for good growth of algae but does not support the growth of bacteria and fungi. Stock cultures are prepared by inoculating the surface of slants with the algal culture and incubation at room temperature under a suitable light source. These stock cultures can be maintained for several months.

Methodology

Suspend 16.87 grams of powder media in 1000 ml distilled water. Shake well & heat to boil to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Off-white to light yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

White coloured clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 1.69% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH Range:- 6.80-7.20

Cultural Response/Characteristics
DM 1343: Cultural characteristics observed under suitable light source after an incubation at 20-25°C within 1 week.

Organism	Inoculum (CFU)	Growth
Chlorella pyrenoidosa ATCC 50476	50-100	good-luxuriant

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Lembi C. A. and Waaland J. R., (Ed.), Algae and Human Affairs, 1988, Cambridge University Press.
2. Guiry M. D. and Blunden G., (Ed.), 1991, Seaweed Resources in Europe: Uses and Potential. John Wiley and Sons Ltd.
3. Allen, 1952, Arch. Microbiol., 17:34.
4. Fitzgerald, 1962, Water and Sewage Works, 109:361.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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