Algae Culture Agar

Intended Use
Algae Culture Agar is used for isolation and cultivation of algae from soil, water and sewage.

Summary
Algae (singular alga) encompass several groups of photosynthesising aquatic organisms. Algae range from single-cell organisms to multicellular organisms (seaweeds). Algae are usually found in damp places or water bodies and thus are common in terrestrial as well as aquatic environments. Algae Culture Agar is recommended for the isolation and cultivation of algae from soil, water and sewage. Algae Culture Agar is used for maintaining stock cultures of algae used in the bioassay of algaecide chemicals. Media for the culture of marine phytoplankton consist of a seawater base (natural or artificial) which may be supplemented by various substances essential for micro algal growth, including nutrients, trace metals and chelators, vitamins, soil extracts and buffer compounds.

Principle
It is a modified formula of Allen and it is also recommended for the cultivation of algae by Fitzgerald. The medium provides all the essential nutrients for good growth of algae concurrently allowing only minimal 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.

Formula*

Ingredients	g/L
Sodium nitrate	1.0
Dipotassium phosphate	0.25
Magnesium sulphate	0.513
Ammonium chloride	0.05
Calcium chloride	0.058
Ferric chloride	0.003
Agar	15.0
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Water sample

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 16.87 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Off white to light yellow coloured, homogeneous, free flowing powder.

Prepared Appearance: White to off white coloured, clear to slightly opalescent gel forms in petridishes.

Cultural Response: Cultural characteristics is observed under suitable light source after incubation at 20°C-25°C within 1 week

Organisms (ATCC)	Growth
Chlorella pyrenoidosa (50476)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

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

Product Presentation:

Cat No.	Product description	Pack Size
201010050500	Dehydrated Culture Media	500 g