Algae Culture Broth

Algae Culture Broth is recommended for the isolation and cultivation of algae from soil, water and sewage.

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
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<tbody>
<tr>
<td>Sodium nitrate</td>
<td>1.000</td>
</tr>
<tr>
<td>Dipotassium phosphate</td>
<td>0.250</td>
</tr>
<tr>
<td>Magnesium sulphate</td>
<td>0.513</td>
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<tr>
<td>Ammonium chloride</td>
<td>0.050</td>
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<tr>
<td>Calcium chloride</td>
<td>0.058</td>
</tr>
<tr>
<td>Ferric chloride</td>
<td>0.003</td>
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</tbody>
</table>

Final pH (at 25°C) 7.0±0.2

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Suspend 1.87 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

**Principle And Interpretation**

Algae (singular alga) encompass several groups of relatively simple living aquatic organisms that capture light energy through photosynthesis, using it to convert inorganic substances into organic matter. Algae range from single-cell organisms to multicellular organisms, some with fairly complex differentiated form and (if marine) called seaweeds. Algae are usually 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 either harvested or used to treat effluents pumped through ponds (1, 2). Algae Culture Broth is recommended for the isolation and cultivation of algae from soil, water and sewage. Algae Culture Broth is similar in composition to Algae Culture Agar, except the agar.

The medium provides all necessary nutrients for good growth of Algae but does not provide for other than minimal growth of bacteria and fungi.

**Quality Control**

**Appearance**
White to light yellow homogeneous free flowing powder

**Colour and Clarity of prepared medium**
White coloured clear to slightly opalescent solution in tubes.

**Reaction**
Reaction of 0.187% w/v aqueous solution at 25°C. pH : 7.0±0.2

**pH**
6.80-7.20

**Cultural Response**
M342: Cultural characteristics observed under suitable light source after an incubation at 20-25°C within 1 week.

**Organism**

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Chlorella pyrenoidosa</em></td>
<td>good-luxuriant</td>
</tr>
</tbody>
</table>

**Storage and Shelf Life**

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on label.
Reference

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