

Bases / Media Supplements

# **Technical Information**

## Chu's Medium No. 10

### Product Code: DM 1697

Application: - Chus Medium No. 10 is recommended for culturing Blue Green algae.

Composition**		
Ingredient	Milligrams / Litre	
Calcium nitrate	40.000	
Magnesium sulphate	25.000	
Dipotassium hydrogen phosphate	5.000	
Sodium carbonate	20.000	
Sodium silicate	25.000	
Iron(II) Chloride	8.000	
**Formula adjusted, standardized to suit performar	ce parameters	

### Principle & Interpretation

Soil algae are ubiquitous in nature wherever moisture and sunlight are available. They are visible to the unaided eye in the form of a green slum on the surfaces of soils. Morphologically, they may be unicellular or filamentous and belong to the families *Chlorophyceae* (green algae) and *Cyanophyceae* (blue-green algae) (1).

*Cyanobacteria* is a phylum (or "division") of bacteria that obtain their energy through photosynthesis. They are often still referred to as blue-green algae, although they are in fact prokaryotes like bacteria. They are a major primary producer of the planetary ocean. They are found in almost every conceivable habitat, from oceans to fresh water to bare rock to soil. Chus Medium No. 10 is formulated as per Chu for cultivation of blue green algae (2).

Calcium nitrate serves as inorganic nitrogen source and other inorganic salts supply the necessary growth requirements.

### Methodology

Suspend 123 mg of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

### **Quality Control**

#### Appearance

White to light yellow homogeneous free flowing powder.

#### Colour and Clarity

Colourless clear solution.

#### Cultural Response

DM1697: Cultural characteristics observed under tungsten lamp, after an incubation at 25-30°C for 10-15 days.

Organism	Growth
Anabena cylindrica	good
Anacystis nidulans ATCC 27344	good
Plectonema boryanum ATCC 18200	good





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## Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. **Prepared Media**: 2-8° in sealable plastic bags for 2-5 days.

### Further Reading

1. Subba Rao N. S., 1997, Oxford and IBH Publishing Co., India. 2. Chu S. P., 1942, J. Ecol., 30, 284-325.

### **Disclaimer :**

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