

## Technical Information

### Czapek Dox Liquid Medium

#### Product Code: DM 2170A

**Application:** - Czapek Dox Liquid Medium is recommended for the cultivation of fungi and bacteria capable of utilizing sodium nitrate as the sole source of nitrogen.

#### Composition\*\*

Ingredients	Gms / Litre
Sucrose	30.000
Sodium nitrate	2.000
Magnesium glycerophosphate	0.500
Potassium chloride	0.500
Dipotassium sulphate	0.350
Ferrous sulphate	0.010
Final pH ( at 25°C)	6.8±0.2

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

#### Principle & Interpretation

Czapek Dox Liquid Medium has been recommended by various authors for studies of *Aspergillus*, *Penicillium* and *Actinomycetes* (2, 3, 4,5). Czapek Dox Agar, Modified supports the growth of organisms which are able to utilize sodium nitrate as the sole source of nitrogen. It is also used for the cultivation and maintenance of numerous fungal species and also for chlamydospore production by *Candida albicans* (1). Czapek Dox Liquid, Modified act as the same purpose as Czapek Dox Agar Modified. Sodium nitrate is the sole source of nitrogen while sucrose is the sole source of carbon. Magnesium glycerophosphate and potassium sulphate help in chlamydospore production by *C. albicans*.

#### Methodology

Suspend 33.36 grams of dehydrated media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Distribute into tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

#### Quality Control

##### Appearance

White to light yellow homogeneous free flowing powder

##### Colour and Clarity

Light yellow coloured, clear to slightly opalescent solution

##### Reaction

Reaction of 3.33%w/v aqueous solution at 25°C. pH : 6.8±0.2

##### Ph Range

6.60-7.00

##### Cultural Response

DM2170A: Cultural characteristics observed after an incubation at different temperatures for 24-48 hours.

Organism	Growth	Incubation temperature
Cultural Response <i>Aspergillus fumigatus</i> ATCC 1028	luxuriant	50°C



Dehydrated Culture Media  
Bases / Media Supplements

* <i>Aspergillus brasiliensis</i> ATCC 16404	luxuriant	30°C
<i>Candida albicans</i> ATCC 10231	luxuriant (Chlamydo spores formation)	28°C
<i>Penicillium notatum</i> ATCC 10108	luxuriant	20 - 25°C
<i>Saccharomyces cerevisiae</i> ATCC 9763	luxuriant	25 - 30°C

Key : \* - Formerly known as *Aspergillus niger*

## 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. Dawson and Christine O., 1962, Saboutaudia; 1:214.
2. Thom C. and Church M. B., 1926, The Aspergilli, Williams and Wilkins Co., Baltimore.
3. Thom C., 1930, The Penicillia, Williams and Wilkins Co., Baltimore.
4. Raper K. B. and Thom C., 1949, Manual of Penicillia, Williams and Wilkins Co., Baltimore.
5. Wakesman S. A., 1931, Principles of Soil Microbiology, Bailliere Thindall and Co., London.

## Disclaimer :

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