

TECHNICAL DATA SHEET

Dichloran Glycerol Agar Base w/ Chloramphenicol

Principle

Dichloran Glycerol Agar Base w/Chloramphenicol (DG-18) is formulated by Hocking and Pitt. Media composed of tryptone, dextrose, dipotassium dihydrogen phosphate, magnesium sulphate, chloramphenicol, dichloran and agar. Tryptone provides nitrogenous compounds, carbon, long chain amino acids, vitamins and other essential growth nutrients. Dextrose is a carbohydrate source. Phosphate buffers the medium. Magnesium sulfate provides divalent cations and sulfate. Dichloran is an antifungal agent, maintain the colony diameters of spreading fungi. Chloramphenicol is included to inhibit the growth of bacteria present in environmental and food samples. The glycerol is recommended to minimize osmotic shock to xerophilic mold and osmophilic yeast cells. Xerophilic molds which may be found in dehydrated or dry food products, such as heavily sugared, salted, dried fruits, cereals, cakes, cookies, flour and meat based dehydrated products.

Use: For selective isolation and enumeration of yeasts and moulds from food samples.

Contents*

Ingredients	Gram/Liter
Tryptone	5.000
Dextrose	10.000
Potassium Dihydrogen Phosphate	1.000
Magnesium sulphate	0.500
Chloramphenicol	0.100
Dichloran	0.002
Agar	15.000
pH at 25°C	5.6 ±0.2

*** Formula adjusted for optimum performance and parameters**

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Directions: Dissolve 15.80 grams in 500 ml distilled water and add 110 gm of Glycerol (Analytical grade). Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Food and dairy samples, eggs, meat products and vegetables. Etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Beige colour free flowing, homogeneous powder
Reaction of 3.15% solution	5.6 ±0.2 at 25 °C
pH	5.40- 5.80
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Pale colored clear to slightly opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 48 -72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 48 - 72 h
Negative control	Performed using sterile distilled water

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Different Microbial Response: Prepare media as per the label directions. Inoculate and incubate the plates at desired temperature and period. The optimum incubation for Yeast and Molds is $25 \pm 2^{\circ}\text{C}$ for 3-5 days and for bacteria $35 \pm 2.0^{\circ}\text{C}$ for 24-48 hrs.

Organism	ATCC	Inoculum	Growth	Recovery
<i>Aspergillus brasiliensis</i>	16404	50-100	Good	$\geq 50\%$
<i>Candida albicans</i>	10231	50-100	Luxuriant	$\geq 60\%$
<i>Saccharomyces cerevisiae</i>	9763	50-100	Luxuriant	$\geq 60\%$
<i>Bacillus subtilis</i>	6633	50-100	Inhibited	--
<i>Escherichia coli</i>	8739	50-100	Inhibited	--

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

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