

TM 981 – DICHLORAN GLYCEROL MEDIUM BASE

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Dichloran Glycerol Medium was formulated by Hocking and Pitt and is recommended for isolation and enumeration of xerophilic moulds from dried and semidried foods. The glycerol at 18% (w/w) lowers the water activity (aw) from 0.999 to 0.95 without causing any problem. This restrictive characteristic makes the medium especially suitable for foods. This medium can also be used for isolation of fungi from clinical samples.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Dextrose (Glucose)	10.000
Potassium dihydrogen phosphate	1.000
Magnesium sulphate	0.500
Dichloran	0.002
Chloramphenicol	0.100
Agar	15.000

PRINCIPLE

The medium consists of Peptone which provides carbon, nitrogen, vitamins and minerals. Dextrose (Glucose) is a carbohydrate source. Phosphate buffers the medium. Magnesium sulfate provides divalent cations and sulfate. Dichloran is an antifungal agent, added to the medium to reduce colony diameters of spreading fungi. Chloramphenicol is included to inhibit the growth of bacteria present in environmental and food samples. Inhibition of growth of bacteria and restriction of spreading of more-rapidly growing moulds aids in the isolation of slow-growing fungi by preventing their overgrowth by more-rapidly growing species.

INSTRUCTION FOR USE

- Dissolve 15.80 grams in 500 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Add 110 grams of glycerol. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
- Appearance of prepared medium** : Medium amber coloured, clear to slightly opalescent gel forms in Petri plates.
- pH (at 25°C)** : 5.6 ± 0.2

INTERPRETATION

Cultural characteristics observed with added 22 grams of glycerol after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Bacillus subtilis subsp spizizeni</i>	6633	$\geq 10^3$	Inhibited	0%	25°C	6 Days
<i>Candida albicans</i>	10231	10-100	Good-luxuriant	$\geq 50\%$	25°C	6 Days
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	0%	25°C	6 Days
<i>Mucor racemosus</i>	42647	10-100	Good-luxuriant	$\geq 50\%$	25°C	6 Days
<i>Saccharomyces cerevisiae</i>	9763	10-100	Good-luxuriant	$\geq 50\%$	25°C	6 Days

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1 Beckers H.J., et al, 1982, Intern. Stand. Org.Document ISO/TC34/SC9/N151 3.
- 2 Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 3 Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 4 Hocking A.D. and Pitt J.I., 1980, J. Appl. Environ. Microbiol., 39:488.
- 5 Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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