



Drake's Medium 10

M1261

Intended use

Recommended for for cultivation of *Pseudomonas* species from water samples.

Composition**

Ingredients	Gms / Litre
DL-Asparagine	3.20
L-Proline	1.60
Dipotassium hydrogen phosphate	1.60
Magnesium sulphate	0.80
Potassium sulphate	16.000

Directions

Suspend 23.2 grams in 1000 ml purified/distilled water containing 38.6 ml ethanol. Heat to boiling to dissolve the medium completely. Dispense in tubes or flasks or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

This medium is used for cultivation of *Pseudomonas* species from water samples. It is relatively simple medium containing amino acids, DL-Asparagine and L-Proline, these two serve as nitrogen sources while magnesium salts provide the ions for the growth of *Pseudomonas* species. Dipotassium hydrogen phosphate helps in maintaining buffering conditions of the medium.

Type of specimen

Water samples

Specimen Collection and Handling

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (1). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1.This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

White coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Clear colourless solution, having some white precipitate.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18- 24 hours

Organism	Inoculum (CFU)	Growth
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	50-100	luxuriant
<i>Stenotrophomonas maltophilia</i> ATCC 13637	50-100	luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.

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