Malachite Green Broth

Intended Use
Malachite Green Broth is used for selective enrichment of *Pseudomonas aeruginosa.*

Summary
Malachite Green Broth is recommended for the selective enrichment of *P. aeruginosa* as per Habs and Kirschner. It is also used for testing water samples as recommended by Schubert and Blum. *Pseudomonas* species is an environmental organism found in water, soil and on plants, including fruits and vegetables. *Pseudomonas aeruginosa* has the ability to survive in the aqueous environments like whirlpool bathwater, swimming pools etc. Whirlpools with elevated temperature, reduced chlorine and increased amounts of organic matter provide ideal conditions for the growth of *P. aeruginosa P. aeruginosa* is commonly isolated from whirlpool waters that is coliform-negative.

Principle
Meat extract and peptic digest of animal tissue serve as sources of essential nutrients required for bacterial metabolism. Dihydrogen potassium phosphate serves to buffer the medium. Malachite green makes the medium selective for *P. aeruginosa* while suppressing the growth of the accompanying flora. The medium can also be used as a single strength medium by suspending 8.4 g/litre of medium, depending upon the sample being tested.

Formula*

Ingredients	**g/L**
Peptic Digest of Animal Tissue	15.0
Meat Extract	9.0
Dipotassium Hydrogen Phosphate	1.1
Malachite Green	0.03
Final pH (at 25°C)	7.0 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Water samples

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 25.13 g of the powder in 1000 mL purified / distilled water.
2. Heat if necessary, to dissolve the powder completely.
3. Dispense into tubes.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Light yellow to greenish yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Peacock blue coloured, slightly opalescent solution without any precipitate.
Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 35°C-37°C.

Organism (ATCC)	Growth
Escherichia coli (25922)	Inhibited
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Hall N., 1984, UHL Lab Hotline 21: 9.
3. Habs H. and Kirschner K. H, 1943, Z.Hyg.,124:557-578.
4. Schubert R. and Blum U., 1974, Zbl. Bakt. Hyg .I. Orig. B.,158:583-587.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130280500	Dehydrated Culture Media	500 g