Pikovskaya's Broth

Intended Use
Pikovskaya's Broth is used for detection of phosphate solubilizing soil microorganisms.

Summary
Phosphorus is one of major limiting factors for crop production on many tropical and subtropical soils as a result of high phosphorus fixation. Phosphate dissolving soil microorganisms play part in correcting phosphorus balance of crop plants. Many fungi and bacteria are potential solubilizers of bound phosphates so they are used in phosphate dissolving culture preparations.

Principle
Dextrose serves as energy source. Yeast extract supplies the nitrogen for the support of bacterial growth. Calcium phosphate is the source of phosphorus. Various salts support the growth of the microorganism.

Formula*

Ingredients	**g/L**
Yeast Extract	0.5
Dextrose	10.0
Calcium Phosphate	5.0
Ammonium Sulphate	0.5
Potassium Chloride	0.2
Magnesium Sulphate	0.1
Manganese Sulphate	0.0001
Ferrous Sulphate	0.0001
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.

Specimen Collection and Handling
For clinical samples follow appropriate techniques for handling specimens as per established guidelines.
For food and dairy samples, follow appropriate techniques for handling specimens as per established guidelines.
For water samples, follow appropriate techniques for handling specimens as per established guidelines and local standards.
Specimens should be obtained before antimicrobial agents have been administered.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 16.30 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely. Do not overheat.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
5. Dispense as desired.

Quality Control
Dehydrated Appearance: Off white to yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: White with flocculant precipitate opaque solution forms in tubes.
Cultural Response: Cultural characteristics observed after an incubation at 30-35°C for 48 hours (by spot inoculation on Pikovskaya's Agar).

Organism (ATCC)	Growth	Phosphate Solubilization
Aspergillus brasiliensis WLRI 034(120) (16404)	Good	+
Bacillus spizizenii (6633)	Good	(+)
Pseudomonas aeruginosa (9027)	Good	+
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good	+

Key: + = Clear zone surrounding the colony
(+) = moderate clear zone surrounding the colony

Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

Warranty

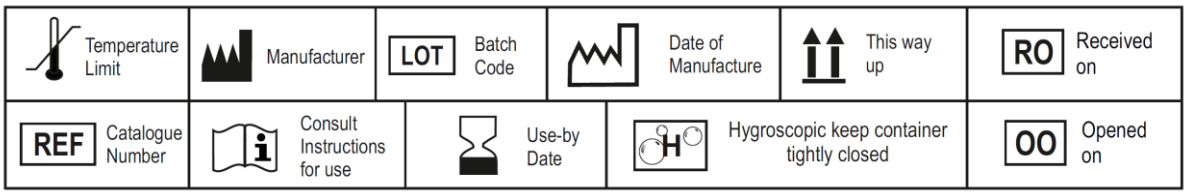
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.
2. Henri Fankem *el al.,* 2006 Occurrence and functioning of phosphate solubilizing microorganisms from oil palm tree rhizosphere in Cameroon. African Joumal of Biotechnology. 5(24): 2450-2460
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201160200500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.