Ethyl Violet Azide Dextrose Agar

Intended Use
Ethyl Violet Azide Dextrose Agar is used for detecting and confirming Streptococci and as confirmative medium for faecal pollution indication in water and other specimens.

Summary
Ethyl Violet Azide Agar is based on the formulation of Litsky et al., and is a modification of medium developed by Litsky et al., with reduced amount of dextrose and increased dye concentration, making the medium highly specific for Enterococci. The presence of Enterococci acts as a valuable index of faecal or sewage pollution in water. It is used for detection and confirmation of Streptococci. Ethyl Violet Azide Dextrose Agar medium has 0.5% dextrose and was found equally productive as the medium described originally containing 1.5% dextrose. It was found that the medium with the lesser amount of carbohydrate was less adversely affected by heat during sterilization. Litsky et al studied a variety of dyes and selective agents for Streptococci and developed a confirmatory medium using ethyl violet and sodium azide as selective agents. Combination of 0.0083 % of ethyl violet dye and 0.04% of azide provided the best selective action favouring growth of Streptococci.

Principle
E.V.A. Dextrose Agar contain casein enzymic hydrolysate as source of carbon, nitrogen, vitamins and minerals. Dextrose is the fermentable carbohydrate. Sodium azide and ethyl violet inhibit Gram-positive bacilli and Gram-positive cocci other than Enterococci. Monopotassium and dipotassium phosphates buffer the medium chloride provides osmotic balance.

Formula*

Ingredients	**g/L**
Casein Enzymic Hydrolysate	20.0
Dextrose	5.0
Dipotassium Phosphate	2.7
Monopotassium Phosphate	2.7
Sodium Chloride	5.0
Sodium Azide	0.4
Ethyl Violet	0.00083
Agar	15.0
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 50.80 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Mix well and pour into sterile petridishes.

Warning: Sodium azide tends to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light amber coloured, clear to slightly opalescent gel forms in petridishes.
Cultural Response: Cultural characteristics observed after an incubation at 35°C-37°C for 24-48 hours.

Organism (ATCC)	Growth
Escherichia coli (25922)	Inhibited
Enterococcus faecalis (29212)	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. Greenberg A. E., Trussell R. R. and Clesceri L. S., (Eds.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th Ed., APHA, Washington, D.C.
2. Litsky W., Mallmann W. L. and Fifield C. W., 1955, Am. J. Public Health, 45:104.
3. Litsky W., Mallmann W. L. and Fifield C. W., 1953, Am. J. Public Health, 43:873.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201050140500	Dehydrated Culture Media	500 g