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**Azide Dextrose Broth**

For detection and enumeration of Streptococci in water, sewage, food and other materials suspected of sewage contamination.

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| REF: V/DB01.100 100 Gram REF: V/DB01.500 500 Gram  | REF: BS.1/DB01.250 250 Gram  |

**CLINICAL SIGNIFICANCE**

Enterococci are more resistant to chlorine in water, hence are better indicators of sewage pollution than Escherichia coli. Until 1984, members of the genus Enterococcus were classified as Group D Streptococci. Upon genomic DNA analysis, a separate genus status was provided to them. Azide Dextrose Broth is recommended by APHA for enumeration of faecal Streptococci by MPN technique. Azide Dextrose Broth was initially formulated by Rothe, Mullmann and Seligmann for quantitative determination of Enterococci in water, sewage, foods and other materials suspected of contamination with sewage. When large volumes of water samples are to be examined, double strength medium is used.

**METHOD PRINCIPLE**

Turbidity in tubes indicates presence of Enterococci, however, it should be further confirmed by inoculation in Ethyl Violet Azide Broth.

Azide Dextrose Broth is a highly nutritious medium due to the presence of nutrient rich peptone special, Beef extract and dextrose. Sodium azide inhibits growth of gram-negative bacteria, allowing Enterococci to grow. Streptococci detected by the above media should be further identified using chemicals.

**MEDIA COMPOSITION**

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| **Item** | **Formula per liter of medium** |
| - Peptone, special - Beef extract - Dextrose (Glucose) - Sodium chloride - Sodium azide  | 15.00 gm4.50 gm7.50 gm7.50 gm0.200 gm |

**PRECAUTIONS AND WARNINGS**

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

* Wearing personnel protective equipment (overall, gloves, glasses,).
* Do not pipette by mouth.
* In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
* Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Azide Dextrose Broth material safety data sheet.

**STORAGE AND STABILITY**

**Lab.Vie**. Azide Dextrose Broth should be stored between 10-30°C in a firmly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a 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.

**Final pH 7.2 ± 0.2 at 25°C**

**PREPARATION**

Suspend 34.7 grams in 1000 ml purified/ distilled water for preparing single strength broth or use 69.4 grams in 1000 ml purified / distilled water for double strength broth. Heat, if necessary, to ensure complete solution. Dispense in test tubes and sterilize by autoclaving at 118°C for 15 minutes.

**Deterioration**

The color of **Lab.Vie**.Azide Dextrose Broth is Cream to yellow homogeneous free flowing powder. Prepared Media is Amber coloured clear solution without any precipitate. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

**SPECIMEN**

Food samples; Water and sewage samples

**EQUIPMENT REQUIRED NOT PROVIDED**

* Sterile test tubes
* Incubator
* Autoclave

**PERFORMANCE CHARACTERISTICS**

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

18-24 hours.

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| --- | --- |
| Microorganism | Growth |
| Enterococcus faecalis ATCC 29212 | good-luxuriant |
| Escherichia coli ATCC 25922 | inhibited |

**QUALITY CONTROL**

# To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control still out of range please contact **Lab.Vie**. technical support.

**REFERENCES**

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| SYMBOLS IN PRODUCT LABELLING |
| Number of <n> test in the pack |  | For in-vitro diagnostic use |  IVD |
| Caution |  | Batch Code/Lot number |  LOT |
| Do not use if package is damaged |  | Catalogue Number |  REF |
| Consult Instruction for use |  | Temperature Limitation |   |
|  |  |  Expiration Date |   |
|  |  | Manufactured by |  |

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