



Lauryl Sulfate Broth, LSB | AS-1266

Used for the detection of coliform organisms in water and wastewater, according to the formula of the APHA.

Lauryl Sulfate Broth (LSB), also called Lauryl Tryptose Broth (LTB), is a selective enrichment medium. It is used for the enumeration and presumed detection of *coliform* bacteria. *Coliforms* are facultative anaerobic, gram-negative microbes that digest lactose to create gas and acid. To supply vital nutrients, LTB includes tryptose, while sodium lauryl sulfate functions as a selective agent to prevent the growth of non-*coliform* organisms. Durham tubes show that the medium's buffered nature promotes *coliforms'* quick generation of gas. LSB is used in microbiological analyses of food, dairy, and water.

Composition (gr/L)

Tryptose	20
Lactose	5
Dipotassium Phosphate	2.75
Monopotassium Phosphate	2.75
Sodium Chloride	5
Sodium Lauryl Sulfate	0.1
Final pH at 25°C	6.8 ± 0.2

Preparation

Dissolve 35.6 g of the powder into 1 liter distilled water. Pour into test tubes. Use 10 ml amounts for 1 ml or less sample. The concentration of the

medium should be varied according to the size of the test samples. For testing 10 ml quantities of samples, dissolve 71.2 g of the powder in 1 Liter of purified water and pour in 10 ml amounts. Autoclave at 121 °C for 15 minutes.

Keep the autoclaved medium at refrigerator, cause the medium becomes cloudy or forms precipitates but clears upon warming to room temperature. However, clarity is not important because only gas production is significant.

Quality Control

Dehydrated Appearance: Light beige, free-flowing, homogeneous.

Prepared Appearance: Light to medium amber, clear to very slightly opalescent.

Reaction of 3.56% Solution at 25°C: pH 6.8 ± 0.2

Microbial Test Results

Incubate at 35±2 °C for 24 hours.

Organism (ATCC)	Recovery	Gas
<i>Enterobacter aerogenes</i> (13048)	Good	+
<i>Escherichia coli</i> (25922)	Good	+
<i>Staphylococcus aureus</i> (25923)	Marked to complete inhibition	-

Storage

Keep the container at 15-30 °C and prepared medium at 2-8 °C.