

# **Product Data Sheet**

LEIFSON AGAR Product No. GB-DCM-00323-1A

#### **INTENDED USE**

For isolation of Salmonella and Shigella species from clinical and non-clinical samples.

#### PRODUCT SUMMARY

Leifson Agar (Veg) is prepared by completely replacing animal based peptone by vegetable peptones which makes the medium free of BSE/TSE risks. This media is the modification of Leifson Agar which is recommended for isolation of Salmonella and Shigella species.

#### **Product Specifications**

Ingredients	Gms / Ltr			
Meat extract	6.500			
Meat peptone	5.000			
Lactose	10.000			
Sodium thiosulphate	5.400			
Sodium citrate	1.000			
Ferric citrate	1.500			
Sodium deoxycholate	0.020			
Neutral red	6.000			
Agar	12.000			

### PRINCIPLE

This medium consists of Meat extract and Meat peptone which provides nitrogenous and carbonaceous compounds, long chain amino acids and other essential growth nutrients. Sodium deoxycholate inhibit all gram-positive bacteria. Lactose is added to the medium to allow differentiation of lactose fermenting bacteria such as Escherichia coli from non-lactose fermenting species such as Salmonella and Shigella species. Lactose fermenting strains grow as red to pink colonies because of absorption of neutral red indicator. Sodium thiosulphate and ferric citrate forms the H2S indicator system. Non-fermenting species grow as colorless colonies with black centers due to production of H2S against Shigella which does not produce H2S.

#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

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## INSTRUCTION FOR USE

- Dissolve 47.42 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

## **QUALITY CONTROL SPECIFICATIONS**

Appearance of PowderLight pink coloured homogeneous free flowing powder.Appearance of prepared :Reddish orange coloured clear to very slightly opalescent gel formsin Petri platesReddish orange coloured clear to very slightly opalescent gel forms

pH (at 25°C) :

 $7.5 \pm 0.2$ 

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	H₂S	Incubation Temperature	Incubation Period
Escherichia coli	22592	50-100	Poor	10-20%	Pink	Negative reaction	35-37°C	18-24 Hours
Enterococcus faecalis	29212	>=10 <sup>4</sup>	Inhibited	0%	-	-	35-37°C	18-24 Hours
Salmonella serotype Enteritidis	13076	50-100	Good - Luxuriant	>=50%	Colourl ess	Positive reaction, black centered colonies	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Good	40-50%	Colourl ess	Negative reaction	35-37°C	18-24 Hours
Salmonella serotype Typhimurium	14028	50-100	Luxuriant	>=70%	Colourl ess	Positive reaction, black centered colonies	35-37°C	18-24 Hours

## STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

## This product is for research use only.

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