

# Universal Pre-Enrichment Broth



Medium used for recovering sublethally injured *Salmonella* spp. and *Listeria* spp. from food products.

## • CONTENTS (Liter)

Tryptone	5.0 g
Proteose Peptone	5.0 g
Monopotassium Phosphate	15.0 g
Disodium Phosphate	7.0 g
Sodium Chloride	5.0 g
Dextrose	0.5 g
Magnesium Sulfate	0.25 g
Ferric Ammonium Citrate	0.1 g
Sodium Pyruvate	0.2 g
Final pH = 6.3 ± 0.2 at 25°C.	

## • PROCEDURE

Suspend 38.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Mix well. Dispense in tubes.

## • INTERPRETATION

Universal Pre-Enrichment Broth is a medium used for recovering sublethally injured *Salmonella* spp. and *Listeria* spp. from food products. Tryptone and proteose peptone are the carbon and nitrogen sources. Phosphates are the buffering agents. Sodium chloride maintains the osmotic balance. Dextrose is a source of carbohydrate for fermentation. Magnesium sulfate and ferric ammonium citrate provide ions. Sodium pyruvate provides the recovery of stressed cells.

## • TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 35 ± 2°C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light beige.

### Prepared medium

Appearance: slightly opalescent.

Color: light to medium amber.

Incubation conditions: 35 ± 2 °C / 18 - 24 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Listeria monocytogenes</i>	15313	50-100	good
<i>Salmonella choleraesuis</i> subsp. <i>Enteritidis</i>	13076	50-100	good
<i>Salmonella typhimurium</i>	14028	50-100	good

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

## • REFERENCES

1. Bailey, Fletcher and Cox. 1990. J. Food Prot. 53:473.
2. U.S. Food and Drug Administration. 1995. Bacteriological analytical manual, 8th ed., rev. October 2001. AOAC International, Gaithersburg, Md.
3. Bailey and Cox. 1992. J. Food Prot. 55:256.
4. Juven, Cox, Bailey, Thomson, Charles and Shutze. 1984. J. Food Prot. 47:299.

## • PACKAGE

Cat. No : MB-U1558 Universal Pre-Enrichment Broth	500 G
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