

## TM 2391 – TRYPTONE SOYA BROTH W/ 10% NACL AND 1% SODIUM PYRUVATE

### INTENDED USE

For enumeration of *Staphylococcus aureus* in dairy products by MPN technique.

### PRODUCT SUMMARY AND EXPLANATION

Staphylococcal food poisoning ranks as one of the most prevalent causes of gastroenteritis worldwide. Staphylococci ferment glucose to produce acid from glucose. Tryptone Soya Broth with 10% sodium chloride and 1% sodium pyruvate is used for enumeration of *Staphylococcus aureus* in dairy products and is recommended for enumeration by MPN technique.

For MPN Technique: Inoculate 3 tubes of Tryptone Soya Broth w/ 10% NaCl and 1% sodium pyruvate of each test dilution with 1 ml aliquots of decimal dilutions of sample. Incubate at 35-37°C for 48 hours. Following incubation, transfer a loopful from each positive growth tube to Baird-Parker Agar plates. Colonies of *S.aureus* on Baird Parker Agar are typically circular, smooth, convex, moist, 2-3 mm in diameter, grey-black to jet black and surrounded by an opaque zone.

### COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	17.000
Papaic digest of soyabean meal	3.000
Dextrose	2.500
Sodium chloride	100.000
Dipotassium phosphate	2.500
Sodium pyruvate	10.000

### PRINCIPLE

Casein enzymic hydrolysate and papaic digest of soyabean meal provide essential nutrients. Dextrose serves as an energy source. Sodium pyruvate protects injured cells, helps recovery and also enhances growth of *S.aureus*. Many other bacteria except staphylococci are inhibited by 10% sodium chloride.

### INSTRUCTION FOR USE

- Suspend 135 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Mix well and dispense as desired.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.  
**Appearance of prepared medium** : Light yellow coloured clear solution without any precipitate  
**pH (at 25°C)** : 7.3±0.2

### INTERPRETATION

Cultural characteristics observed after incubation at different temperatures.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Bacillus subtilis</i>	6633	$\geq 10^3$	Inhibited	35-37°C	18-48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	35-37°C	18-48 Hours
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	35-37°C	18-48 Hours

#### PACKAGING:

In pack size of 500 gm bottles.

#### 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.

#### DISPOSAL

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

#### REFERENCES

1. AOAC, 2000, Official Method 987.09, *Staphylococcus aureus* in Foods, J. Assn. Off. Anal. Chem. 17:52.
2. APHA, 1985, "Standard Methods for the Examination of Dairy Products 15th Ed., Am. Pub. Health Assn, Washington, D.C.
3. Chapman G. H, 1945, J. Bacteriol., 50:201.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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