

# TRYPTIC SOY BROTH

## INTENDED USE

Remel Tryptic Soy Broth (TSB) is a liquid medium recommended for use in qualitative procedures for isolation and cultivation of a wide variety of microorganisms and for sterility testing.

## SUMMARY AND EXPLANATION

TSB was originally developed for susceptibility testing of pneumococci and other organisms to sulfonamides without adding serum or blood to the medium.<sup>1</sup> Spink and Hamilton used TSB to promote the growth of aerobic and facultative microorganisms such as *Brucella* species, while Garrison and Hedgecock used the medium to cultivate fungi.<sup>2-5</sup> TSB is recommended in *United States Pharmacopeia* (USP), *Bacteriological Analytical Manual*, *Compendium of Methods for the Microbiological Examination of Foods*, *Official Methods of Analysis* of AOAC International, *Standard Methods for the Examination of Dairy Products*, and *Standard Methods for the Examination of Water and Wastewater*.<sup>6-11</sup>

## PRINCIPLE

Casein and soy peptones provide nitrogen, amino acids, and peptides necessary for bacterial growth. Dextrose is a ready source of energy. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium. Dipotassium phosphate is a buffer which serves to maintain the pH of the medium.

## REAGENTS (CLASSICAL FORMULA)\*

Casein Peptone.....	17.0 g	Dextrose .....	2.5 g
Sodium Chloride.....	5.0 g	Dipotassium Phosphate .....	2.5 g
Soy Peptone.....	3.0 g	Demineralized Water .....	1000.0 ml

pH 7.3 ± 0.2 @ 25°C

\*Adjusted as required to meet performance standards.

## PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

## PREPARATION OF DEHYDRATED CULTURE MEDIUM

1. Suspend 30 g of medium in 1000 ml of demineralized water.
2. Warm slightly to dissolve completely.
3. Dispense into appropriate containers and sterilize at 121°C for 15 minutes or following established laboratory procedures.

## PROCEDURE

1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, and testing.<sup>6-11</sup>

## QUALITY CONTROL

Each lot number of Tryptic Soy Broth has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures at or prior to the time of use. If aberrant quality control results are noted, sample results should not be reported.

## CONTROL

*Aspergillus brasiliensis* ATCC® 16404  
*Bacillus subtilis* ATCC® 6633  
*Candida albicans* ATCC® 10231  
*Escherichia coli* ATCC® 8739  
*Pseudomonas aeruginosa* ATCC® 9027  
*Staphylococcus aureus* ATCC® 6538

## INCUBATION

Ambient, up to 5 days @ 20-25°C  
Ambient, up to 72 h @ 30-35°C  
Ambient, up to 5 days @ 20-25°C  
Ambient, up to 72 h @ 30-35°C  
Ambient, up to 72 h @ 30-35°C  
Ambient, up to 72 h @ 30-35°C  
Ambient, up to 72 h @ 30-35°C

## RESULTS

Growth  
Growth  
Growth  
Growth  
Growth  
Growth  
Growth

## LIMITATIONS

1. Slight to moderate color variation of broth media does not affect performance.
2. Nonviable organisms may be seen when Gram-staining culture media resulting from their presence in various media components.

## BIBLIOGRAPHY

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Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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