

Instructions for Use

TSB (TRYPTIC SOY BROTH) WITH LECITHIN AND TWEEN® 80

Cat. no. K134	TSB with Lecithin and Tween® 80, 20x125mm Tube, 9ml	20 tubes/box
Cat. no. U229	TSB with Lecithin and Tween® 80, 500ml Polypropylene Bottle, 500ml	10 bottles/box
Cat. no. U292	TSB with Lecithin and Tween® 80, 180ml Wide Mouth Jar, 99ml	12 jars/box
Cat. no. U306	TSB with 0.7% Lecithin and 5% Tween® 80, 500ml Polypropylene Bottle, 500ml	10 bottles/box
Cat. no. U423	TSB with Lecithin and Tween® 80, 20ml Serum Vial, 10ml	50 vials/box
Cat. no. U425	TSB with Lecithin and Tween® 80, 500ml Bottle with Septum, 300ml	10 bottles/box

INTENDED USE

Hardy Diagnostics Tryptic Soy Broth (TSB) with Lecithin and Tween® 80 is recommended for the cultivation of a wide variety of fastidious and nonfastidious microorganisms from nonclinical specimens, when the neutralization of disinfectants is desired. This medium can also be used for sterility testing and to test the microbial content of water.

This product is not intended to be used for the diagnosis of human disease.

SUMMARY

The formulation of Tryptic Soy Broth with Lecithin and Tween® 80 is prepared according to the United States Pharmacopeia (USP) standard formula for Soybean-Casein Digest Broth.⁽³⁾ It is also included in approved procedures in the *Compendium of Methods for the Microbiological Examination of Foods* and *Standard Methods for the Examination of Water and Wastewater*.^(1,2)

Hardy Diagnostics Tryptic Soy Broth (TSB) with Lecithin and Tween® 80 contains digests of soybean meal and casein which provide amino acids and other nitrogenous compounds to support microbial growth. Sodium chloride is added to maintain cellular osmotic equilibrium. Glucose provides an energy source. Lecithin and Tween® 80 are added to the formulation to neutralize germicidal or disinfectant residues. Neutralization of these residues reduces their inhibitory effect which would ultimately result in the lowering of the microbial count. Quaternary ammonia compounds are neutralized by lecithin while phenolic disinfectants and hexachlorophene are neutralized by Tween® 80. Together, lecithin and Tween® 80 neutralize ethanol.^(1,2)

FORMULA

Ingredients per liter of deionized water:*

Pancreatic Digest of Casein	17.0gm

Sodium Chloride	5.0gm
Tween [®] 80	5.0gm
Peptic Digest of Soybean Meal	3.0gm
Dextrose	2.5gm
Dipotassium Phosphate	2.5gm
Lecithin	0.7gm
TSB with 0.7% Lecithin and 5% Tween[®] 80 contains:	
Lecithin	7.0gm
Tween [®] 80	50.0gm

Final pH 7.3 +/- 0.2 at 25°C.

* Adjusted and/or supplemented as required to meet performance criteria.

STORAGE AND SHELF LIFE

Storage: Upon receipt store at 2-25°C. away from direct light. Media should not be used if there are any signs of deterioration, discoloration, contamination, or if the expiration date has passed. Product is light and temperature sensitive; protect from light, excessive heat, moisture, and freezing.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "[Storage](#)" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "[Guidelines for Isolation Precautions](#)" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections*.

Sterilize all biohazard waste before disposal.

Refer to the document "[Precautions When Using Media](#)" for more information.

PROCEDURE

Specimen Collection: Consult listed references for information on specimen collection.⁽¹⁻³⁾

Method of Use: Allow media to warm to room temperature prior to inoculation. Consult listed references for

(1-3)

information concerning testing procedures.

Inoculate and incubate tubes, jars and/or bottles per techniques and procedures established via laboratory policy.

INTERPRETATION OF RESULTS

Positive growth is indicated by the media becoming cloudy or turbid.

Consult listed references for more detailed information concerning positive growth interpretation.⁽¹⁻³⁾

LIMITATIONS

It is recommended that biochemical, immunological, molecular, or mass spectrometry testing be performed on colonies from pure culture for complete identification of bacteria and/or fungi.

Results can be uninterpretable or misleading unless a statistical method for monitoring is designed.

Refer to the document "[Limitations of Procedures and Warranty](#)" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as loops, swabs, applicator sticks, other culture media, incinerators, and incubators, etc., as well as serological and biochemical reagents, are not provided.

QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificate of Analysis (CofA) and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media*. The following microorganisms are routinely used for testing at Hardy Diagnostics:

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
Cat. no. K134, U229, U292, U423, U425					
<i>Staphylococcus aureus</i> ATCC® 25923	A	24hrs	35°C	Aerobic	Growth
<i>Aspergillus brasiliensis</i> ATCC® 16404	G	1-5 days	20-25°C	Aerobic	Growth
<i>Escherichia coli</i> ATCC® 25922	A	24hrs	35°C	Aerobic	Growth
Cat. no. U306					
<i>Staphylococcus aureus</i> ATCC® 25923	A	24hrs	35°C	Aerobic	Growth
<i>Aspergillus brasiliensis</i> ATCC® 16404	G	1-5 days	20-25°C	Aerobic	Growth
<i>Pseudomonas paraeruginosa</i> ATCC® 9027	A	24hrs	35°C	Aerobic	Growth
<i>Candida albicans</i> ATCC® 10231	A	24-48hrs	35°C	Aerobic	Growth

* Refer to the document "[Inoculation Procedures for Media QC](#)" for more information.

USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics [Certificate of Analysis](#) website. Also refer to the document "[Finished Product Quality Control Procedures](#)," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

PHYSICAL APPEARANCE

Hardy Diagnostics Tryptic Soy Broth (TSB) with Lecithin and Tween[®]80 should appear trace to slightly hazy, light amber in color; with no precipitate or debris.

Hardy Diagnostics Tryptic Soy Broth (TSB) with 0.7% Lecithin and 5% Tween[®]80 (Cat. no. U306), should appear trace to slightly hazy, light amber in color; with no precipitate or debris, and may have tween settled on bottom.

REFERENCES

1. American Public Health Association. *Standard Methods for the Examination of Water and Wastewater*, APHA, Washington, D.C.
2. APHA Technical Committee on Microbiological Methods for Foods. *Compendium of Methods for the Microbiological Examination of Foods*, APHA, Washington, D.C.
3. *United States Pharmacopoeia and National Formulary* (USP-NF). Rockville, MD: United States Pharmacopoeial Convention.

ATCC is a registered trademark of the American Type Culture Collection.
Tween is a registered trademark of ICI Americas, Inc.

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