



Technical Data

Tryptone Soya HiVeg™ Broth w/ 10% NaCl and 1% Sodium Pyruvate MV1229

Intended Use

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

Composition**

Ingredients	Gms / Litre
HiVeg™ hydrolysate	17.000
Soya peptone	3.000
Dextrose(Glucose)	2.500
Sodium chloride	100.000
Dipotassium hydrogen phosphate	2.500
Sodium pyruvate	10.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 135 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense into tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Tryptone Soya HiVeg™ Broth with 10% NaCl and 1% Sodium pyruvate is prepared by using HiVeg Hydrolysate which is free of BSE/TSE risks associated with animal based peptones. This medium can be used for the same purpose of Tryptone

Soya Broth with 10% Sodium chloride and 1% Sodium pyruvate which is used for enumeration of *Staphylococcus aureus* in dairy products using MPN Technique (1 ,2).

HiVeg™ hydrolysate and soya peptone provide essential nutrients. Dextrose serves as an energy source. Sodium pyruvate protects injured cells, helps recovery and also enhances growth of *Staphylococcus aureus*. Many other bacteria except Staphylococci are inhibited by 10.5% sodium chloride (3).

For MPN Technique: Inoculate 3 tubes of Tryptone Soya HiVeg™ Broth w/ 10% NaCl and 1% sodium pyruvate (M1229) 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 HiVeg Agar (MV043) plates. Colonies of *S. aureus* on Baird Parker HiVeg™ Agar are typically circular, smooth, convex, moist, 2-3 mm in diameter, grey-black to jet black and surrounded by an opaque zone.

Type of specimen

Dairy samples

Specimen Collection and Handling

For dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (4). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

Limitations :

This medium is general purpose medium and may not support the growth of fastidious organisms.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Light yellow to brownish yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate

Reaction

Reaction of 13.50% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

Organism	Inoculum (CFU)	Growth
<i>Bacillus subtilis</i> ATCC 6633 (00003*)	≥10 ³	inhibited
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 25923 (00034*)	50-100	luxuriant
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	luxuriant
<i>Neisseria meningitidis</i> ATCC 13090	50-100	luxuriant

Key:- (*) Corresponding WDCM numbers

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Reference

- 1.AOAC. 1987. J.Assn. Off. Anl. Chem, 70.
- 2.Chapman, G.H. 1945. J. Bacteriol, 50.
- 3.Wehr, H.M. and Frank, J.H. 2004. Standard Methods for the Examination of Dairy Products. 17 ed.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
- 5.Isenberg, H.D. Clinical Microbiology Procedures Handb0ook. 2nd Edition.
6. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Disclaimer :

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