Reference : DSHB3134 **Technical data sheet**

Product :

Tryptone and Soy Yeast Extract Agar (TSYEA)

Specification

General purpose solid culture medium, acc. to ISO 11290: 2017 standards.

Formula * in g/L

Casein peptone	17.00
Yeast Extract	6.00
Soybean Peptone	3.00
Sodium chloride	5.00
Dextrose	2.50
Di-Potassium Phosphate	2.50
Agar	15.00

Final pH at 25ºC 7.3 ± 0.2

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

Directions

Suspend 51 g of powder in 1 L of distilled water and bring to the boil. Distribute into containers and sterilize in the autoclave at 121ºC for 15 minutes.

Description

The Tryptone and Soybean with Yeast Extract Agar (TSYEA) is a general-purpose culture medium that supports the growth of a wide variety of microorganisms, including some of the fastidious ones. At the time it was included in the food control methodology by different private and official organizations (APHA, AOAC, FDA, LFGB).
The current formulation is the one prescribed in the ISO 11290: 2017 standards for the maintenance and subculture of the presumed Listeria colonies until their definitive identification through morphological examinations (Henry's technique) and biochemical or serological tests.

Technique

To carry out the different tests and examinations for each sample and/or organism, the technician is referred to the methodological protocols established and in force in their working area.

Quality control

Incubation temperature: 37 ± 1ºC **Incubation time:** 21±3h

Inoculum: Practical range 100 ± 20 CFU. Min. 50 CFU (Productivity) according to ISO 11133:2014/Amd 1:2018 & Adm 2:2020

Microorganism	Growth	Remarks
Listeria monocytogenes ATCC® 13932	Productivity > 0.70	-
Listeria monocytogenes ATCC® 35152	Productivity > 0.70	-

References

· ATLAS, R.M. (1993) Handbook of Microbiological Media. CRC Press Boca Raton Florida
· LACHICA, R.V. (1990) Simplified Henry technique for initial recognition of Listeria colonies. Appl. Environ. Microbiol. 56:4:1164
· FDA (2005) Bacteriological Analytical Manual 8th ed. Revision A. AOAC Int. Gaithersburg. Ge. USA
· HITCHINS, A.D. (ret.), K. Jinneman & Yi Chen. Detection of Listeria monocytogenes in Foods and Environmental Samples, and Enumeration of Listeria monocytogenes in Foods. Trypticase soy agar with 0.6% yeast extract (TSAYE) (M153) in Bacteriological Analytical Manual Chapter 10 https://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm2006949.htm
. ISO 11133:2014/ Adm 1:2018 Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
· ISO 11290-1:2017 Standard. Microbiology of the food chain. Horizontal method for the detection and enumeration of Listeria monocytogenes and for Listeria spp.- Part 1: Detection Method
· ISO 11290-2:2017 Standard. Microbiology of the food chain. Horizontal method for the detection and enumeration of Listeria monocytogenes and for Listeria spp.- Part 2: Enumeration Method
· LFGB (2005) Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch (Lebensmittel- und Futtermittelgesetzbuch - LFGB) § 64 Amtliche Sammlung von Untersuchungsverfahren
· LOVETT, J. & A.D. HITCHINS (1989) Listeria isolation. FDA Bacteriological Analytical Manual. 6th ed. Supp. Sept.1987 (2nd Print):29.01
· VANDERZANT, C y D.F. SPLITTSTOESSER (1992) Compendium of methods for the microbiological examination of foods. APHA. Washington DC.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 ºC to 30 ºC).