



Syncase Broth

M949

Syncase Broth is used for the detection of coliforms in food samples.

Composition**

Ingredients	Gms / Litre
Casein acid hydrolysate	20.000
Dipotassium phosphate	8.710
Yeast extract	6.000
Sodium chloride	2.500
Final pH (at 25°C)	8.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 37.21 grams in 1000 ml distilled water. Heat, if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Note: The medium may form slight precipitate upon standing.

Principle And Interpretation

Examination of water, foods, ingredients and raw materials, for the presence of marker groups such as coliforms is one of the most common tests in a microbiological laboratory, partly because of the relative ease and speed with which these tests can be accomplished. It is a valuable bacterial indicator for determining the extent of faecal contamination of recreational surface waters or drinking water (1). Syncase Broth is used for the detection of coliform organisms from food samples as per APHA (2).

Casein acid hydrolysate and yeast extract in the medium supply the necessary nitrogenous nutrients for the growth of coliforms. Dipotassium phosphate serves as buffering agent to maintain pH, whereas sodium chloride maintains osmotic equilibrium.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution in tubes

Reaction

Reaction of 3.7% w/v aqueous solution at 25°C. pH : 8.5±0.2

pH

8.30-8.70

Cultural Response

M949: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours .

Organism	Inoculum (CFU)	Growth
<i>Citrobacter freundii</i> ATCC 8090	50-100	luxuriant
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	luxuriant
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant

Storage and Shelf Life

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

Reference

1. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam
2. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.

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