



Simulated Grape Juice Medium

M945

Simulated Grape Juice Medium is used for ascospore production by *Byssochlamys* and heat resistant moulds.

Composition**

Ingredients	Gms / Litre
Glucose	160.000
Tartaric acid	5.000
Final pH (at 25°C)	3.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 165 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.

Principle And Interpretation

Byssochlamys, a heat resistant mould pose the greatest problem in food spoilage, perhaps because its ascospores are either more heat resistant or are more abundant in nature. *Byssochlamys ascospores* survive repeated freezing and thawing. Simulated Grape Juice Medium is recommended by APHA for ascospore production by *Byssochlamys* (1). This medium simulates grape juice (2). Determination of heat resistance of a mold is necessary. This is done by culturing the organism at 30°C for 30 days on Potato Dextrose Agar (M096) pH 3.5. Transfer scrapings to a blender jar containing sterile water. Homogenise the suspension and filter to remove hyphae. The ascospores can be released by shaking the suspension 5 seconds with 0.11 mm glass beads. These spores are then suspended in Simulated Grape Juice Medium and heated to 85 to 95°C. After cooling, spores are diluted in water and plated on a suitable plating medium. The highly acidic pH of the medium prevents the growth of bacteria.

Quality Control

Appearance

White to light yellow coloured homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless clear solution without any precipitate

Reaction

Reaction of 16.5% w/v aqueous solution at 25°C pH : 3.6±0.2

pH

3.40-3.80

Cultural Response

M945: Cultural characteristics observed after an incubation at 30°C for upto 1 week

Organism

Byssochlamys fulva

Growth

good-luxuriant

Cultural Response

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. Speck M.L, (Ed.) 1984, Compendium of Methods For the Microbiological Examination of Foods, 2nd ed, APHA, Washington, DC.
2. Bayne, H.G, and H.D Michener. 1979. Appl. Environ, Microbiol. 37:449-453.

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