Simulated Grape Juice Medium

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

**Composition**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Gms / Litre</th>
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<tbody>
<tr>
<td>Glucose</td>
<td>160.000</td>
</tr>
<tr>
<td>Tartaric acid</td>
<td>5.000</td>
</tr>
<tr>
<td>Final pH (at 25°C)</td>
<td>3.6±0.2</td>
</tr>
</tbody>
</table>

**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 hypae. 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

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
</tr>
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<tr>
<td><em>Byssochlamys fulva</em></td>
<td>good-luxuriant</td>
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</tbody>
</table>

**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**

Disclaimer:

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