

PREPARATION AND MAINTENANCE GUIDELINES

Rehydration

The dissolution of the media frequently determines the clarity and yield of the final product. It is essential to obtain a homogeneous solution with minimal exposure to heat.

Only purified water (distilled or deionized) should be used.

The required quantity of powder material should be added to half the volume of water. After total mixing, add the rest of the water, taking caution to rinse the sides of the container and stir the contents carefully.

Allowing the mixture to stand for 5 minutes helps to obtain a uniform suspension. Many formulae that do not contain gelatin, agar or cystine, dissolve without heat, but others require direct heat for complete dissolution, sometimes agitation as well. Apply heat evenly, boil it as briefly as possible (normally a minute or two is sufficient). Follow the instructions for each specific medium that appear on the label or in the technical data sheet.

Sterilization

Follow the instructions for each specific medium that appear on the label or in the technical data sheet. In general, these instructions are for smaller volumes of media. For larger volumes increase the time of sterilization by 30 minutes, without the temperature exceeding the specified for each medium. The media which contain carbohydrates should not be autoclaved at a temperature that exceeds 116°C to 118°C. Always avoid overheating.

Storage of Dehydrated Media

When the bottle of powdered medium has been opened for use, it should be closed immediately to avoid hydration. Store in a cool, dry place, preferably below 25°C, out of direct sunlight. There are some media that need storage temperatures between 2 - 8°C. Please see the label or the technical data sheet. If the medium hydrates (becomes lumpy) it will become contaminated and difficult to sterilize, in which case the bottle should be discarded.

It is important that the inventory of powdered media be large enough to address all the necessary applications, but sufficiently small to assure constant rotation. Although many media can be kept at ambient conditions for long periods of time, not all, however, are stable indefinitely.

Presentations

All our Dehydrated Culture Media, Peptones and Agars, in addition to the smaller size in the Catalogue (500 g), can be supplied in the following bulk sized-drums:

5, 10, 25 & 50 Kgs.

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Cautions

You can find below our Dehydrated Culture Media that require the following cautions:



R: 22 Toxic when swallowed.	R: 22/23 Toxic by inhalation and swallowing. Danger of accumulative effects.
S: 45 In case of accident or uneasiness, seek medical assistance immediately (show the label if possible).	S: 23/45 Do not inhale vapors. In case of accident or uneasiness, seek medical assistance immediately (show the label if possible).
<ul style="list-style-type: none">• ACETAMIDE BROTH• ACETAMIDE BROTH [UNE-EN 12780:2002]• AZIDE BLOOD AGAR BASE• BILE ESCULIN AZIDE AGAR (ISO 7899-2:2000)• EVA BROTH (ETHYL VIOLET AZIDE BROTH)• KAA CONFIRMATORY AGAR• KAA PRESUMPTIVE BROTH• KF STREPTOCOCCAL AGAR• ROTHE BROTH (GLUCOSE BROTH WITH AZIDE)• SABOURAUD DEXTROSE AGAR + CHLORAMPHENICOL + CYCLOHEXIMIDE (ACTIDIONE)• SLANETZ-BARTLEY MEDIUM (ISO 7899-2:2000)• STREPTOCOCCUS SELECTIVE AGAR (STREPTOSEL AGAR)• STREPTOCOCCUS SELECTIVE BROTH (STREPTOSEL BROTH)	<ul style="list-style-type: none">• BRILLIANT GREEN SELENITE BROTH• BRILLIANT GREEN SELENITE BROTH II• SELENITE CYSTINE BROTH• SODIUM SELENITE BROTH
	R: 40 Possibility of irreversible effects.
	S: 36/37 Use appropriate clothing and protecting gloves.
	<ul style="list-style-type: none">• ACETAMIDE BROTH

Some Common Faults & Causes

Drift in pH	Overheating, incomplete mixing, prolonged sterilization, use of alkaline glass, impure water, repeated remelting, hydrolysis of ingredients, prolonged storage at high temperature.
Incomplete Solubility	Inadequate heating of agar media, insufficient agitation, too small a container (occasionally a precipitate can be an essential part of a medium, e.g. Bismuth Sulphite Agar).
Darkening	Overheating of the medium in dissolution or sterilization, incorrect weighing of dehydrated powder, insufficient agitation.
Soft Gel	Overheating of the medium in dissolution or sterilization, insufficient agitation, incorrect weighing, acid hydrolysis of agar, deteriorated dehydrated powder, failure to compensate for dilution of agar by the inoculum.
Loss of Growth Promoting or Differentiating Properties	Repeated remelting, excessive heating, incomplete dissolution, incorrect weighing, disturbance in the formula by the inoculum carriers.
Abnormal Color of Medium	Deteriorated dehydrated medium, improperly washed glassware, impure water.
Toxicity of Medium	Improperly washed glassware, impure water, burning or scorching of medium.
Contaminated	Improper/insufficient sterilization, poor technique in adding supplements and/or additives and pouring plates.