

TM 2435 - YSG BROTH

INTENDED USE

For cultivation of *Alicyclobacillus* in fruit juices in accordance with Official method of IFU.

PRODUCT SUMMARY AND EXPLANATION

Alicyclobacillus species are gram positive aerobic thermophilic, and spore forming acidophilic bacteria. *Alicyclobacillus* are sometimes called Acidophilic Thermophilic Bacteria (ATB). These spore forming organisms are able to survive the relatively mild pasteurization temperatures used for fruit juices and drinks and some are able to grow out and cause spoilage of the beverage. Even very low numbers of *Alicyclobacillus* are able to cause spoilage and produce objectionable flavours and odours specially affecting the quality of fruit juice and in the beverages, damaging the brand. These bacteria are able to grow at pH values as low as 2.5 and also at elevated temperatures as high as 60°C. This medium was recommended for the pre-enrichment of *Alicyclobacillus* in fruit processing

COMPOSITION

Ingredients	Gms / Ltr
Yeast extract	2.000
Glucose	1.000
Soluble starch	2.000

PRINCIPLE

YSG Agar is recommended for the growth of *Alicyclobacillus*. Yeast extract in the medium supplies vitamin and growth factors. Glucose serves as an energy source. Soluble starch neutralizes the medium. The low pH of the medium imparts selectivity to the medium.

INSTRUCTION FOR USE

- Dissolve 5 grams in 1000 ml distilled water.
- Heat, if necessary, to dissolve the medium completely.
- Adjust the pH to 3.7±0.1 with 1N HCl.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Pale yellow coloured slightly opalescent solution.
pH (at 25°C)	: 3.7±0.1

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Alicyclobacillus acidocaldarius</i>	27009	50-100	Luxuriant	60°C	48-72 Hours

<i>Alicyclobacillus acidoterrestris</i>	49028	50-100	Luxuriant	60°C	48-72 Hours
<i>Alicyclobacillus acidocaldarius</i>	43030	50-100	Luxuriant	60°C	48-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.







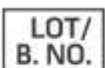


Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Ceny G., Hennlich W. and K Rocallia-Furchtsaftwerb durch Baciilen. Isobioerung and Charakteriseeuing des Verdebserregens-Z hebers Utres Forsch 179: 224-227, 1984.
2. Baungart and Merve S., The Impact of Alicyclobacillus acidoterstris on the Quality of Juices and Soft Drinks Fruit processing 7: 251-254 (2000).
3. Catharina e. Steyn, Michelle Cameron, R. Corli Witthuhn., International Journal of Food Microbiology, Vol.157, Issue1, pg. 1-11. Occurence of Alicyclobacillus in the fruit processing environment- A review.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019