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# TM 570 – CASEIN HYDROLYSATE BROTH

#### **INTENDED USE**

For production of Staphylococcus enterotoxin for use in Cat test and in serological studies.

### PRODUCT SUMMARY AND EXPLANATION

Casein Hydrolysate Broth was developed by Casman and is used for production of Staphylococcal enterotoxin for use in the cat test and in serological studies. As described in APHA, Staphylococci to be tested for enterotoxigenicity should be subcultured into the tubes of Casitose Broth (Casein Hydrolysate Broth) and incubated in an atmosphere containing 30% Carbon - dioxide for 18 - 24 hours at 35°C. Growth obtained by this method is then transferred from each tube in three ml amounts to duplicate flasks containing 100 ml Casitose Broth and the flasks should be incubated as mentioned above for three days. The broth cultures are then centrifuged and supernatant fluid is sterilized by Seitz filtration. The filtrates are then tested for alpha and beta haemolysins and if present then the toxins are denatured by heat or by neutralization with antiserum. After denaturation, filtrates can be injected in the cats to observe if vomiting is induced. Casitose Broth can be solidified with the addition of agar and the cultures grown are used for tests on other animals and in analysis of antigen-antibody systems by agar diffusion technique.

#### COMPOSITION

Ingredients	Gms / Ltr	
Casein Acid Hydrolysate	20.000	
Ferric citrate	0.025	
Potassium phosphate	2.000	
Magnesium sulphate	0.200	
L-Cystine	0.025	
Sodium acetate	7.000	
L-Tryptophan	0.075	
Calcium pantothenate 0.000		
Thiamine	Thiamine 0.00004	
Nicotinic acid (Niacin)	Nicotinic acid (Niacin) 0.0012	

#### PRINCIPLE

Casein Hydrolysate Medium consist of casein hydrolysate which serves as a rich source of nitrogen and carbon. Sulphates present acts as a buffering agent and provide ions to the media.

#### INSTRUCTION FOR USE

- Dissolve 29.33 grams in 1000 ml purified / distilled water.
- Mix thoroughly. Heat with frequent agitation and boil for one minute.
- Dispense as desired. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

A- 902A, RIICO Industrial Area, Phase III, Bhiwadi-301019.



Appearance of Powder	: Yellow colored, homogeneous, free flowing powder.
Appearance of prepared medium	: Light to medium amber colored, clear to slightly opalescent solution with a slight precipitate.
pH (at 25°C)	: 7.3±0.2

#### **INTERPRETATION**

Cultural characteristics observed after incubation.

Microorganism	ATCC	lnoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Staphylococcus aureus	25923	50-100	Luxuriant	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	35-37°C	18-24 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.

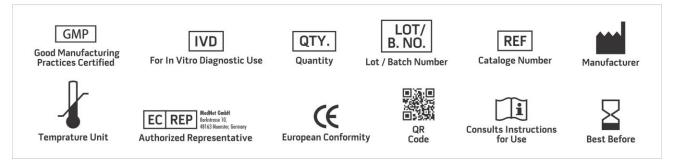
## DISPOSAL

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

## REFERENCES

- 1. Casman, 1958, Public Health Reports, 73:599.
- 2. Standard Methods for the Examination of Dairy Products, (1960). 11th Edition. APHA, New York.

3. American Type Culture Collection, Manassas, Va., USA.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only

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## **PRODUCT DATA SHEET**

Revision: 08 Nov., 2019

