

TM 574 - SKIM MILK

INTENDED USE

For cultivation of dairy organisms and differentiation of *Clostridium* species.

SUMMARY AND EXPLANATION

Skim milk powder is used for the demonstration of coagulation and proteolysis of casein. SM powder is sometimes used as a complete medium or as an ingredient in other media used for propagation of organisms occurring in milk products like *Mycobacterium tuberculosis*, *Corynebacterium diphtheriae* etc. Addition of SM powder to any nutrient-rich medium creates favorable conditions for growth of organisms, which are found in milk. The number of bacteria isolated thus is more than the number of organisms isolated on a regular medium.

COMPOSITION

Ingredients	Gms / Ltr
Skim Milk Powder	100.000

PRINCIPLE

Proteolytic bacteria hydrolyze casein to form soluble nitrogenous compounds indicated as clear zone surrounding the colonies on the agar medium. More clear zones are seen on milk agar if, the bacteria produce acid from fermentable carbohydrates in the medium. In case of SM powder, proteolytic organisms hydrolyse and form a clear solution with the precipitation at the bottom of the tube. SM powder serves as the purpose.

INSTRUCTION FOR USE

- Dissolve 100.0 grams in a little amount of purified / distilled water to make a smooth paste.
- Gradually add more distilled water to make a final volume of 1000 ml.
- Dispense and sterilize by autoclaving at 15 psi pressure (121°C) for 5 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : White to cream homogeneous free flowing powder.

Appearance of prepared medium : Off white coloured opaque solution in tubes.

pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Proteolytic	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	12924	50-100	Luxuriant	Positive reaction	35 - 37°C	18-24 Hours

<i>Serratia marcescens</i>	8100	50-100	Inhibited	Positive reaction	35 - 37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Good-Luxuriant	Negative reaction	35 - 37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	Positive reaction	35 - 37°C	18-24 Hours
<i>Proteus mirabilis</i>	25933	50-100	Luxuriant	Positive reaction	35 - 37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	Negative reaction	35 - 37°C	18-24 Hours
<i>Bacillus subtilis sp.spizizeni</i>	6633	50-100	Good-Luxuriant	Positive reaction	35 - 37°C	18-24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Luxuriant	Positive reaction,	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 below 25°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.







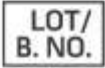


DISPOSAL

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

REFERENCES

1. Frazier W.C. and Ripp P., 1928, J. Bact., 16: 57
2. Terplan G. Rundfeldt, H.u. Zaadhof, K.J. Zur Eignung verschiedener Nährböden für die Bestimmung der Gesamtkeimzahl der Milch. - Arch. Lebensmittelhyg., 18; 9-11 (1967).



 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. 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**
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