

TMV 1078 - SPS AGAR, MODIFIED (VEG.)

INTENDED USE

For selective isolation and enumeration of *Clostridium perfringens* from foodstuffs.

PRODUCT SUMMARY AND EXPLANATION

SPS Veg Agar, Modified is prepared by using Veg hydrolysate which is free of BSE/TSE risks. SPS Veg Agar, Modified is the modification of SPS (Sulphite Polymyxin Sulphadiazine) Agar developed by Angelotti et al which is based on the medium described by Mossel et al for selective isolation and enumeration of *Clostridium perfringens* from foods.

Few organisms found in food other than *Clostridium perfringens* also form black colonies on this medium. Some strains of *Clostridium perfringens* fail to grow on this medium.

COMPOSITION

Ingredients	Gms / Ltr
Veg hydrolysate	15.0
Yeast extract	10.0
Ferric citrate	0.5
Sodium sulphite	0.5
Sodium thioglycollate	0.1
Polysorbate 80	0.05
Sulphadiazine	0.12
Polymyxin B sulphate	0.01
Agar	15.0

PRINCIPLE

Veg hydrolysate and yeast extract supply nitrogenous compounds, vitamin B complex and other essential growth nutrients to the growing *Clostridium perfringens*. This organism reduces sulphite to sulphide which reacts with ferric citrate to form a black precipitate of iron sulphide and hence the colonies appear black. Sorbitan monooleate (Polysorbate 80) supplies fatty acids to the organisms. Polymyxin B and Sulphadiazine inhibit a wide variety of gram-positive and gram-negative bacteria. Sodium thioglycollate is a reducing agent.

INSTRUCTION FOR USE

- Dissolve 41.28 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 50°C and pour in sterile petri plates containing inoculum. Allow to solidify and if desired, pour the cover layer using about 5 ml sterile medium. Incubate anaerobically.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Appearance of prepared medium	: Medium amber coloured, slightly opalescent gel forms in petri plates.
pH (at 25°C)	: 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after an incubation under anaerobic conditions.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	13124	50-100	Good - luxuriant	$\geq 50\%$	Black	35-37°C	18 - 48 Hours
<i>Clostridium sporogenes</i>	11437	50-100	Fair-good	20-40%	Black	35-37°C	18 - 48 Hours
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	0%	-	35-37°C	18 - 48 Hours
<i>Staphylococcus aureus</i>	25923	50-100	None - poor	0-10%	White	35-37°C	18 - 48 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 2-8°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.

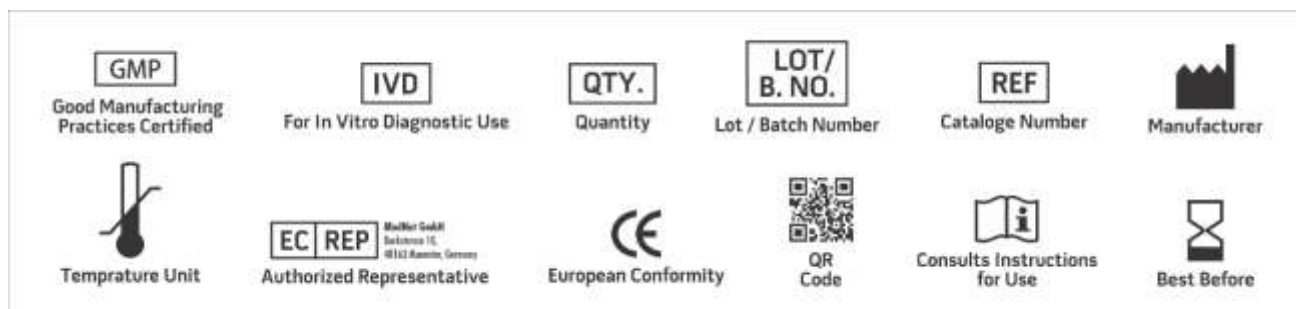
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Angelotti, et al, 1962, Appl. Microbiol., 10:193.
2. Mossel, et al, 1956, J. Appl. Microbiol., 19:142.
3. Mossel, 1959, J. Sci. Food Agric., 19:662.



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

***For Lab Use Only**
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