TM 1423 – C. PERFRINGENS SPORULATION BROTH

INTENDED USE

For promoting sporulation in *Clostridium* perfringens.

PRODUCT SUMMARY AND EXPLANATION

Clostridium perfringens is ubiquitous in nature and can be found as a normal component of decaying vegetation, marine sediment, intestinal tract of humans and other vertebrates, insects, and soil. *C. perfringens* is commonly encountered in infections as a benign component of the normal flora. *C. perfringens* food poisoning is one of the most common types of human foodborne illnesses. A heat-labile enterotoxin produced only by sporulating cells induces the major symptoms of diarrhea in perfringens infections. *C. perfringens* Sporulation Broth is formulated as per APHA for enhancing sporulation in *C.perfringens*.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	15.000
Yeast extract	3.000
Starch, soluble	3.000
Magnesium sulphate	0.100
Sodium thioglycollate	1.000
Disodium hydrogen phosphate	11.000

PRINCIPLE

The medium contains ingredients like tryptose, yeast extract and starch, which not only support the growth of *C. perfringens* but also stimulate spore formation in presence of magnesium sulphate. Sodium thioglycollate in the medium helps to maintain anaerobic conditions. Magnesium sulphate and disodium phosphate provide ions to the organism and helps in maintaining buffering conditions in the medium.

INSTRUCTION FOR USE

- Dissolve 33.1 grams in 1000 ml purified / distilled water.
- Heat if necessary to ensure complete solution.
- Dispense 20 ml amounts in 20 x 150 mm screw capped test tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Just before use, heat the medium in flowing steam for 20 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Medium amber coloured, clear to slightly opalescent solution with a slight precipitate in tubes.

pH (at 25°C) : 7.8±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Sporulation	Incubation Temperature	Incubation Period
Clostridium perfringens	12924	50-100	Good-luxuriant	Positive	35-37°C	24-48 Hours
Clostridium sporogenes	11437	50-100	Good-luxuriant	Negative	35-37°C	24-48 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 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
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2. International Organization for Standardization (ISO- 7937:2004): Microbiology of food and animal feeding stuffsHorizontal method for the enumeration of Clostridium perfringens- Colony count technique
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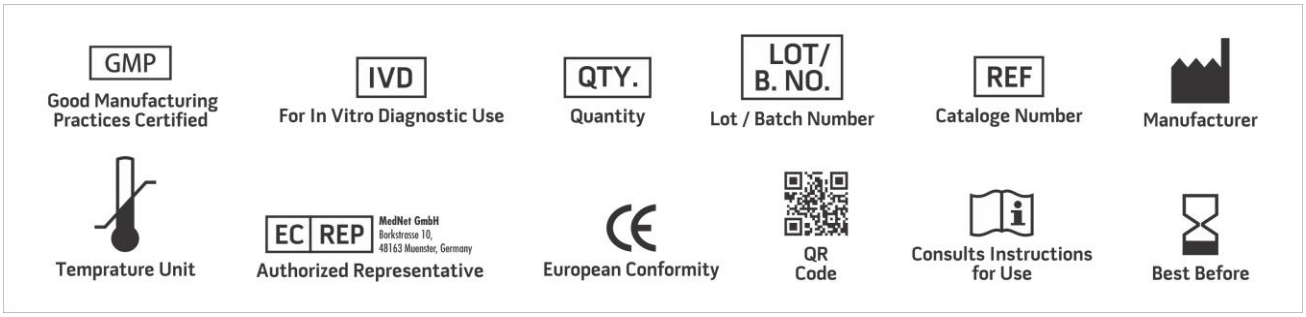
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Speck M. L., (Eds.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, Washington, D.C
6. Wells C. L., Wilkins T. D., 1996, Barrons Medical Microbiology (Barron S. et al, Eds.), 4th Ed., Univ. of Texas Medical Branch.



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