

TM 1826 – PERFRINGENS AGAR BASE (TRYPTOSE SULPHITE CYCLOSERINE AGAR BASE) (ISO 7937: 2004, ISO 14189:2013)

INTENDED USE

For enumeration of *Clostridium perfringens* from food.

PRODUCT SUMMARY AND EXPLANATION

Tryptose Sulphite Cycloserine Agar (TSC) was originally formulated by Harmon et al for the enumeration of *C.perfringens* from food. TSC Agar has been documented as one of the most useful media for the quantitative recovery of *C. perfringens* while suppressing growth of other facultative anaerobes. Perfringens Agar Base is also recommended by APHA. Perfringens Agar Base is recommended for enumeration of *C.perfringens* from foods by ISO Committee.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	15.000
Soya peptone	5.000
Yeast extract	5.000
Sodium metabisulphite	1.000
Ferric ammonium citrate	1.000
Agar	15.000

PRINCIPLE

The medium consists of tryptose, soya peptone, yeast extract which provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamin B complex and trace elements essential for clostridial growth. Sodium metabisulphite and ferric ammonium citrate act as an indicator of sulphite reduction, indicated by black coloured colonies. D-cycloserine help in the selective isolation of *C.perfringens* by inhibiting accompanying flora. Homogenized food samples can be directly streaked on the surface of plates or can be pre-enriched in Cooked Meat Medium before streaking.

INSTRUCTION FOR USE

- Dissolve 21.0 grams in 500 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 add rehydrated contents of one vial of TSC Supplement.
- Alternatively, if fluorogenic detection is desired add rehydrated contents of Clostridium perfringens supplements.
- Mix well before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to brownish yellow homogeneous free flowing powder.
- Appearance of prepared medium** : Amber coloured clear to slightly opalescent gel..
- pH (at 25°C)** : 7.6 ± 0.2



INTERPRETATION

Cultural characteristics observed under anaerobic condition with added TSC Supplement and Egg Yolk Emulsion after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Sulphite Reduction	Fluorescence	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	12924	50-100	Luxuriant	>=70%	Positive, blackening of medium	Positive Reaction	35-37°C	18-48 Hours
<i>Clostridium sordellii</i>	9714	>=10 ³	Inhibited	0%	-	-	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 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. Harmon S. M., Kauttar D.A. and Peiler J. T., 1971, Appl. Microbiol., 22:688.
2. Harmon S. M. and Kauttar D.A., 1987, J. Asso. Off. Anal. Chem., 70: 994.
3. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
4. International Organization for Standardization (ISO- 7937:2004): Microbiology of food and animal feeding stuffs- Horizontal method for the enumeration of Clostridium perfringens- Colony count technique.

 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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