Reference: 06-114LYO1 **Scharlau Microbiology - Technical Data**

Product: # Sodium disulphite Selective Supplement

Specification

Sterile selective supplement used for the identification of *Clostridium perfringens.*

Presentation

	Packaging Details	Shelf Life	Storage
10 Freeze dried vials Vial with: 3 ± 0.1 g	23x60 mm glass vials, tag labelled, White plastic cap - 10 vials per box.	49 months	2-25 ºC

Composition

Compositon (g/vial)

Sodium disulphite..... 0.3750

Reconstitute the original freeze-dried vial by adding :

Sterile Distilled Water.....6 ml

NOTE : Each vial is sufficient to supplement 500ml of Lactose Sulphite Broth Base, 02-519.

Description /Technique

Description:

Sodium disulphite supplement is an indicator for the sulfide production as result of sulfite reduction typical of *Clostridium perfringens* spp. Among other sulphite reducing clostridia, *Cl. perfringrens* has the ability to produce gas from lactose, at 46ºC. It has interferences only with *Cl. paraperfringens,* however this microorganism is not so common in food samples.
Tubes are incubated in aerobic conditions at 46ºC for a period of 18-24 hours. C. perfringens presence is observed by an iron sulfide precipitate appearing in the tubes. It indicates sulfite reducing activity. Accumulation of gas in the Durham's tubes is a sign of lactose fermentation.

Technique:

Collect, dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.

Reconstitute the vial with 6 ml of sterile diluent in aseptic conditions and add it to 500 ml of sterilized Broth base cooled to 50ºC previously supplemented with ferric ammonium citrate.
Do not overheat once suplemented

Pour the complete medium into tubes and inoculate.
Incubate the tubes in anaerobic atmosphere at 46 ± 1 º C for 18-24 h adding a Durham tube into each tube.

After incubation, observe iron sulfide precipitate appearing in the tubes. Acumulation of gas in the Durham’s tubes is a sign of lactose fermentation.

Presumptive isolation of *Clostridium perfringens* must be confirmed by further microbiological and biochemical tests.

Quality control

Physical/Chemical control

Color : White-Gray

Microbiological control

Add 1 vial to 500 ml of medium base. DO NOT HEAT once supplemented.

Prepare Tubes with Durham bell- Inoculate: Practical range 100 ± 20 CFU; min. 50 CFU (productivity)/ 10^4-10^6 CFU (selectivity)

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Anaerobiosis incubation at 46 º C ± 1 for 18 - 24h.

Microorganism	Growth
Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237	Good - Black precipitate
Clostridium perfringens ATCC® 10543, WDCM 00174	Good - Black precipitate
Bacillus subtilis ATCC® 6633, WDCM 00003	Inhibited

Sterility control

100 ml TSB and 100 ml Thioglycollate.
Incubation 48 h at 30-35 ºC and 48 h at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

· ISO Standard 7937 (2004) Microbiology of food and animals feeding stuffs. Horizontal method for enumeration of *Clostridium perfringens*. Colony count technique.

. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

· PASCUAL ANDERSON, Mª R. (1992) Microbiología Alimentaria. Díaz de Santos. Madrid.