

TSN Agar
Trypticase Sulfite Neomycin Agar

Use and description:

It is used for the selective isolation of *Clostridium Perfringens*.

Neomycin and polymyxin are inhibitory for gram negative enteric bacilli. Neomycin at the concentration employed at least partially inhibits *C. bifermentans*. The relatively high incubation temperature of 46°C renders the medium highly specific for *C. perfringens*. The colonies are black due to the formation of ferric sulfide as a result of the reduction of the sulfite.

Composition per liter:

Casein Peptone	15.0 g
Sodium Sulfite	1.0 g
Neomycin Sulfate	0.05 g
Polymixin Sulfate	0.02 g
Yeast extract.....	10.0 g
Ferric Citrate	0.5 g
Agar	13.5 g

Final pH of the ready to use medium: 7.2±0.2 at 25.0 °C

Medium preparation:

Add 40,0 grams of dehydrated culture medium to 1 liter of distilled water.

Before sterilization dispense into tubes. When transfer the inoculum to the tubes avoid the incorporation of air into the medium.

Autoclave for 15 min at 121°C.

Quality specifications:

1. The powder is homogeneous, free flowing and light beige.
2. Ready to use medium: amber-colored agar

Microbiological response after 18-24 hours at 48 °C:

Organism	Growth	Colony / Colour
<i>Clostridium perfringens</i> ATCC 13124	Good	black
<i>Clostridium perfringens</i> NCTC 8238	Good	black
<i>Bacillus Cereus</i> ATCC 11778	partial or complete Inhibition	w or w/o blackening
<i>Clostridium bifermentans</i> ATCC 17836		-
<i>E.coli</i> ATCC 25922	inhibited	-

Storage:

Store the sealed bottle containing the dehydrated medium at 2 to 30.0 °C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original light beige color.