**PRODUCT CODE: 445576**

# TSC Agar (ISO 14189, 7937) (Prepared Plate (ø 55 mm)) for microbiology

## Specification

Solid selective and differential medium for isolation and presumptive identification of Clostridium perfringens, according to ISO Standards.

## Presentation

| 30 Prepared Plates | Packaging Details | Shelf life | Storage |
|---|---|---|---|
| 55 mm Plates for filtration purposes with: 9 ± 1 ml. | 1 box containing 5 plastic bags with 6 plates of 55 mm / bag | 6 months | 2-25ºC |

## Description and Technique

*Description*

The medium is a modification of the classical TSN Agar in which the traditional antibiotics, polymyxin and neomycin have been replaced by cycloserine. Cycloserine has been found more selective for *Clostridium perfringens*, and reduces the production of diffuse blackening.

*Clostridium perfringens* is more resistant to cycloserine than to sulfadiazine, polymyxin and neomycin, hence reducing the dosage.

The presence of sodium meta-bisulfite and ferric ammonium citrate allow three differential characteristics of this anaerobic species to be verified with just one assay. These characteristics are sulfite reduction, growth at 46°C and cycloserine resistance.

*Technique*

Collect, dilute and prepare samples and volumes to be filtered as required according to specifications, directives, official standard regulations and/or expected results. Filter the sample through a 0.45 mm pore membrane and apply it onto the surface of the agar.

Cover the membrane with a second layer of room temperature melted agar.
Incubate the plates anaerobically at 44±1ºC for 24±3h. (Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,...)

After incubation, enumerate the colonies with a black iron sulfide precipitate. Confirmation of characteristic colonies as C.perfringens is required, throughout further microbiological or biochemical tests.



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## Quality control

| Physical/Chemical control | Microbiological control | Sterility control |
|---|---|---|
| Color: yellow<br>pH: 7.6 ± 0.2 at 25ºC | Membrane Filtration /Practical range 100±20 CFU; Min. 50 CFU (Productivity)./$10^4$ -$10^6$ CFU for Selectivity.<br><br>Microbiological control according to ISO 11133.<br><br>Anaerobiosis. Incubation at 44 ± 1ºC during 21 ± 3h. | Incubation 48 hours at 30-35ºC and 48 hours at 20-25ºC: NO GROWTH<br><br>Check at 7 days after incubation in same conditions |

| Microorganism | Growth |
|---|---|
| *Clostridium perfringens ATCC® 13124, WDCM 00007, NCTC® 8237* | Good ≥ 50%. Black colonies |
| *Clostridium perfringens ATCC® 10543, WDCM 00174* | Good ≥ 50%. Black colonies |
| *Bacillus subtilis ATCC® 6633, WDCM 00003* | Inhibited |



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