

# Product Specification Sheet

## *TSC Agar Base*

Intended Usage: A medium for the isolation of *Clostridium perfringens* in water.

For professional use only.

TV5204G	
Version: 06	Revision Date: 22 May 2020

**Thermo Scientific™ TSC Agar Base**

Form of Product	Poured tube
Storage	2 – 25°C
Filling weight	19.5 - 20.5 g
Packaging	50 tubes in a box
pH	7.6 ± 0.2
Appearance	Green beige, transparent
Shelf life	26 weeks
Intended Usage	A basal medium for cultivation and presumptive identification of <i>Clostridium perfringens</i> For professional use only.
Technique	According ISO 14189:2013 – Enumeration of <i>Clostridium perfringens</i> – overlay method. For information see Specification Sheet for Thermo Scientific™ Oxoid™ CM0587.

Typical formulation*	g/l
Tryptose	15.0
Soya peptone	5.0
Yeast extract	5.0
Sodium metabisulphite	1.0
Ferric ammonium citrate	1.0
Agar	19.0

\*Adjusted as required to meet performance standards.

## Quality Control

1. Control for general characteristics, labelling and printing.
2. Contamination check  
≥ 72 h @ 20 – 25 °C, aerobic  
≥ 72 h @ 30 – 35 °C, aerobic
3. Microbiological Control

Positive Controls	Growth
<b>Inoculum 50 – 120 colony forming units (cfu), quantitative</b> <b>Incubation conditions: 18 – 24 h @ 36°C, anaerobic</b> <b>Melt tubes at 90-95°C and pour into plates</b>	
<i>Clostridium perfringens</i> ATCC®13124™	2 mm, black colonies.
<i>Escherichia coli</i> CIP106878	2 mm, transparent colonies.
Colony counts shall be ≥ 50% of the control medium TSA	

ATCC® registered trademark of American Type Culture Collection.

## REFERENCE TO ISO14189:2013

### Culture method

#### 1. Overlay Method

1. After filtration, place the membrane grid face upwards on the TSC agar plate ensuring that no air bubbles are trapped under the filter.
2. Equilibrate TSC Agar Base in a water bath at  $(45 \pm 1^\circ\text{C})$  to use the molten agar for a thin layer (about 5ml to 10ml).
3. Incubate the plates with the filter, anaerobically at  $44 \pm 1^\circ\text{C}$  for  $21 \pm 3\text{h}$  (minimum 22h) inverted to avoid interference with condensing water.
4. Presumptive *Clostridium perfringens* show black colonies.

### Confirmation

For confirmation subculture presumptive *Clostridium perfringens* onto blood agar plates (e.g. Columbia Blood Agar<sup>PLUS</sup> PB5039A). Incubate anaerobically in an incubator at  $36 \pm 2^\circ\text{C}$  for  $21 \pm 3\text{h}$ .

Colonies grown anaerobically on blood agar are spread on filter paper and 2 to 3 drops of the acid phosphatase reagent are placed onto colonies. A purplish colour development within 3 min to 4 min is considered as positive reaction.