



TECHNICAL DATA SHEET

DESCRIPTION TRIPLE SUGAR IRON AGAR, BOTTLED
SGL PRODUCT CODE 0870

A differential medium used to differentiate Enterobacteriaceae based on their ability to ferment carbohydrates and produce hydrogen sulphide. Degradation of sugar and consequent acid production are indicated by a colour change from red-orange to yellow. Alkaline production turns the medium deep red. Thiosulphate reduction produces a black iron sulphide.

FORMULATION

Typical product composition*:

| COMPONENT | WEIGHT / VOLUME |
|--------------------------------|-----------------|
| Beef extract | 3.0 g |
| Yeast extract | 3.0 g |
| Peptic digest of animal tissue | 20.0 g |
| Sodium chloride | 5.0 g |
| Lactose | 10.0 g |
| Sucrose | 10.0 g |
| Glucose | 1.0 g |
| Ferric citrate | 0.3 g |
| Sodium thiosulphate | 0.3 g |
| Phenol red | 0.025 g |
| Agar | 12.0 g |
| Purified water | 1000 ml |

*Product may be adjusted and/or supplemented to meet performance criteria

QUALITY CONTROL SPECIFICATION

| PHYSICAL TESTS | SPECIFICATION CRITERIA |
|----------------|--------------------------|
| Appearance | Dark red translucent gel |
| pH at 20-25°C | 7.4 ± 0.2 |

| STERILITY TESTS | SPECIFICATION CRITERIA |
|----------------------------------|------------------------|
| Incubation at 22-25°C for 7 days | No growth detected |
| Incubation at 35-37°C for 7 days | No growth detected |
| Incubation at 42-45°C for 7 days | No growth detected |

| GROWTH PROMOTION / INHIBITION TESTS | SPECIFICATION CRITERIA |
|---|---|
| <i>Escherichia coli</i> ATCC 8739 NCIB 8545 NCTC 12923 | Acid (yellow) & gas reaction in butt, acid reaction in slant. No H ₂ S produced |
| <i>Proteus mirabilis</i> ATCC 29906 NCTC 11938 | Acid (yellow) & gas reaction in butt, alkali (red) reaction in slant. H ₂ S produced (black) |
| <i>Shigella boydii</i> NCTC 9327 | Acid (yellow), alkali or no reaction in slant. No H ₂ S produced |



| GROWTH PROMOTION / INHIBITION TESTS | SPECIFICATION CRITERIA |
|---|---|
| <i>Salmonella typhimurium</i> ATCC 14028 NCTC 12023 | Acid (yellow) & gas reaction in butt, alkali (red) or no reaction in slant. H ₂ S produced (black) |

NMT = Not more than

NLT = Not less than

CFU = Colony forming units

Additional specification testing may be performed as requested by the customer.

Manufactured in compliance with ISO 9001 (Ref No FM37824) and tested in accordance with ISO 11133 by a UKAS (ISO 17025) accredited laboratory (Ref No. 4356).