

Distribution: Central File

Date: 03/02/11

Supersedes: 13/12/04

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

TETRATHIONATE BROTH BASE

CM0029

Typical Formula*

'Lab-Lemco' powder	grams per litre	0.9
Peptone		4.5
Yeast extract		1.8
Sodium chloride		4.5
Calcium carbonate		25.0
Sodium thiosulphate		40.7

* adjusted as required to meet performance standards

Directions

Suspend 77g in 1 litre of distilled water and bring to the boil. Cool to 50°C and add, just prior to use, 20ml of iodine solution. Mix well to ensure even dispersion of the medium and aseptically dispense into sterile containers. The prepared base will keep for many weeks at 2 to 8°C but use the complete medium (with added iodine) on the day of preparation. DO NOT AUTOCLAVE.

Iodine solution:	Iodine	6g
	Potassium iodide	5g
	Distilled water	20ml

Physical Characteristics

White, free-flowing powder
 Colour on reconstitution - off white
 Moisture level - less than 7%
 pH 8.0 ± 0.2 at 25°C (base medium)
 Clarity - opaque

Microbiological Tests Using Optimum Inoculum Dilution

Control Media: Tryptone Soya Agar and Desoxycholate Citrate Agar (Hynes)

Inoculation with mixed cultures

Inoculate 10ml quantities of medium to achieve 1-15 colony-forming units/ml (cfu/ml) of *Salmonella* spp., to each add greater than $1E+03$ cfu/ml of *Escherichia coli* ATCC® 8739. Incubate broths at 37°C for 18 hours. Subculture onto Desoxycholate Citrate Agar (Hynes) (CM0227) and incubate plates at 37°C for 24 hours.

<i>Salmonella enteritidis</i>	ATCC® 13076	0.5-2mm straw colonies with or without black centre
<i>Salmonella typhimurium</i>	ATCC® 14028	0.5-2mm straw colonies with or without black centre
<i>Salmonella virchow</i>	NCTC 5742	0.5-2mm straw colonies with or without black centre

Recovery of each organism shall be comparable to the standard. *Escherichia coli* should be easily distinguishable from *Salmonella* spp. and not overgrow the target organism.

Inoculation with pure cultures

Inoculate 10ml quantities of medium to achieve $1\text{E}+04$ to $1\text{E}+05$ cfu/ml. Incubate broths at 37°C for 18 hours. Subculture onto Tryptone Soya Agar (CM0131) and incubate plates at 37°C for 24 hours.

Escherichia coli ATCC® 25922 No growth or 1-3mm cream colonies