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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
MULLER-KAUFFMANN TETRATHIONATE BROTH BASE CM0343		

MULLER-KAUFFMANN TETRATHIONATE BROTH BASE

CM0343

Typical Formula*

	grams per litre	
Tryptone		7.0
Soya peptone		2.3
Sodium chloride		2.3
Calcium carbonate		25.0
Sodium thiosulphate		40.7
Ox bile		4.75

* adjusted as required to meet performance standards

Directions

Suspend 82g in 1 litre of sterile distilled water and bring to the boil. Cool to below 45°C and add, just prior to use, 19ml of iodine solution and 9.5ml of a 0.1% w/v brilliant green solution. Mix well and fill out into sterile tubes or flasks.

Iodine solution:	Iodine	20g
	Potassium iodide	25g
	Distilled water to	100ml
Brilliant green solution:	Brilliant green (BDH or Chroma)	0.1g
	Distilled water	100ml

Physical Characteristics

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

Microbiological Tests using Optimum Inoculum Dilution

Control Medium: Tryptone Soya Agar

Reactions after aerobic incubation at 43°C for 24 hours

Medium is challenged with 10-100 colony-forming units/ml (cfu/ml)

<i>Salmonella typhimurium</i>	ATCC®14028
<i>Salmonella virchow</i>	NCTC5742
<i>Salmonella enteritidis</i>	ATCC®13076

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Inoculate broths and incubate at 43°C for 24 hours. To assess growth subculture onto plates of Tryptone Soya Agar (CM0131), incubate plates at 37°C for 24 hours. After incubation greater than or equal to a 2 log(10) increase over an initial inoculum is achieved.

Medium is challenged with greater than 1E+03 colony-forming units/ml (cfu/ml)

Escherichia coli ATCC®8739

Inoculate broths and incubate at 43°C for 24 hours. To assess growth subculture onto plates of Tryptone Soya Agar (CM0131), incubate plates at 37°C for 24 hours. After incubation less than or equal to a 2 log(10) reduction over an initial inoculum is achieved.

Reactions after aerobic incubation at 43°C for 48 hours

Medium is challenged with greater than 1E+03 colony-forming units/ml (cfu/ml)

<i>Pseudomonas aeruginosa</i>	ATCC®27853	No growth or 1-3mm straw colonies
<i>Enterococcus faecalis</i>	ATCC®29212	No growth or 0.25-1mm straw colonies
<i>Enterococcus faecalis</i>	ATCC®19433	No growth or 0.25-1mm straw colonies

Inoculate broths and incubate at 43°C for 48 hours. To assess growth subculture onto plates of Tryptone Soya Agar (CM0131), incubate plates at 37°C for 24 hours.

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire Document	Update to new document format and correction of typographical/minor errors.	Change control	BT-CC-1842
Microbiological characteristics	Addition of Control Media and clarity of results criteria.		
Physical characteristics	Addition of colour on reconstitution.		