

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION
TRYPTONE LP0042
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Description

A pancreatic digest of casein specially prepared for inclusion in micro-biological culture media, providing a rich source of amino nitrogen. It is used in sterility testing media, and in media for testing the indole reaction. It is used in media for fermentation processes producing antibiotics, extracellular protein and interferon.

Physical Characteristics

Appearance	Straw, free-flowing powder
Absorbance at 450nm (2% soln.)	0.000 - 0.066 units
pH (25°C) (2% soln.)	7.3 ± 0.2
Loss on drying	Less than or equal to 6.5%
Clarity (2% soln.)	Clear, bright and free from sediment and insoluble particles

Chemical Characteristics

Ash	Less than or equal to 15.0%
Formol nitrogen	3.4 - 4.0%
Total nitrogen	Greater than or equal to 10.0%

Microbiological Characteristics

The following tests are carried out:-

Test	Solution	Organism	Incubation	Result
Fermentable carbohydrate	2% + 0.2ml of 1% phenol red solution and Durham tubes	<i>Escherichia coli</i> ATCC®25922	35 ± 2°C for 72 hours	Negative
Indole production	0.1%	<i>Escherichia coli</i> ATCC®25922	35 ± 2°C for 24 hours	¹ Positive
Hydrogen sulphide production	1%	<i>Salmonella enteritidis</i> ATCC®13076	35 ± 2°C for 42-48 hours	² Positive
Acetylmethylcarbinol	1% + 0.5% NaCl + 0.5% Dextrose	<i>Enterobacter aerogenes</i> ATCC®13048	37°C for 24 hours	³ Positive

- Indicator - Kovacs reagent
- Indicator - lead acetate paper
- Indicator - Voges-Proskauer test solution

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Test	Solution	Organism	Control Inoculum	Incubation	Result
Growth recovery in broth	2%	<i>Escherichia coli</i> ATCC®25922	10-100 CFU	37°C for 24 hours	Turbid growth
		<i>Staphylococcus aureus</i> ATCC®9144	10-100 CFU	37°C for 24 hours	Turbid growth
		<i>Enterococcus faecalis</i> ATCC®29212	10-100 CFU	37°C for 24 hours	Turbid growth

Test	Solution	Organism	Control Inoculum	Incubation	Result
Growth recovery in medium	2% + 1.2% Agar + 0.5% NaCl	<i>Escherichia coli</i> ATCC®25922	10-100 CFU	37°C for 24 hours	Straw colonies
		<i>Enterobacter aerogenes</i> ATCC®13048	10-100 CFU	37°C for 24 hours	Straw colonies
		<i>Salmonella typhimurium</i> ATCC®14028	10-100 CFU	37°C for 24 hours	Straw colonies
		<i>Pseudomonas aeruginosa</i> ATCC®9027	10-100 CFU	37°C for 24 hours	Straw colonies
		<i>Staphylococcus aureus</i> ATCC®6538	10-100 CFU	37°C for 24 hours	Cream colonies
	2% + 1.2% Agar + 0.5% NaCl +5% Sheep blood	<i>Streptococcus pneumoniae</i> ATCC®6303	10-100 CFU	37°C for 48 hours	Grey/green mucoid colonies, α haemolysis
		<i>Streptococcus pyogenes</i> ATCC®19615	10-100 CFU	37°C for 48 hours	White colonies, β haemolysis
		<i>Streptococcus agalactiae</i> ATCC®12386	10-100 CFU	37°C for 48 hours	White colonies, β haemolysis
	2% + 1.2% Agar + 0.5% NaCl + 10% Horse blood (Added at 80-90°C to produce chocolate plates)	<i>Neisseria gonorrhoeae</i> ATCC®19424	10-100 CFU	37°C for 48 hours in 10% CO ₂	Grey/brown colonies

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Total Viable Aerobic Count

A 2% peptone solution is further diluted and 1ml amounts are placed in sterile Petri dishes. Sterile Tryptone Soya Agar (CM0131) cooled to 44°C is added to the dilutions using the pour plate technique. Plates are incubated at 37°C for 18 hours. Colonies present are counted; they shall be less than 10,000 cfu/g.

Thermophilic Spore Count

A 2% peptone solution is further diluted and heated at 80°C for 10 minutes. 1ml amounts are placed in sterile Petri dishes. Sterile Tryptone Soya Agar (CM0131) cooled to 44°C is added to the dilutions using the pour plate technique. Plates are incubated at 37°C for 18 hours. Colonies present are counted; they shall be less than 1,000 spores/g.

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire document	Update to new format	Update to new format	BT-SOP-7767
Physical and chemical characteristics	Change light straw to straw, loss on drying and ash to less than or equal. Total nitrogen to more than or equal to. Add formol nitrogen limits.	Change control	BT-CC-1811
Microbiological characteristics	Add limits for Total Viable Aerobic and Spore Count. Change non-selective medium for total viable aerobic and spore counts from Plate Count Agar (CM0325) to Tryptone Soya Agar (CM0131)		