

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

PEPTONE BACTERIOLOGICAL LP0037

PEPTONE BACTERIOLOGICAL
LP0037
Description

An all-purpose peptone with a wide range of applications in routine, diagnostics and research bacteriology.

Physical Characteristics

| | |
|--------------------------------|---|
| Appearance | Straw, free-flowing powder |
| Absorbance at 450nm (2% soln.) | 0.100 - 0.390 units |
| pH (25°C) (2% soln.) | 6.2 ± 0.2 |
| Clarity (2% soln.) | Clear, bright and free from sediment and insoluble particles. |
| Loss on drying | Less than or equal to 7.5% |

Chemical Characteristics

| | |
|--------------------|--------------------------------|
| Ash | Less than or equal to 15.0% |
| Chloride (as NaCl) | Less than or equal to 2.0% |
| Formol nitrogen | 2.0 – 4.0% |
| Total nitrogen | Greater than or equal to 10.0% |
| Nitrite | Absent |

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 |

- 1 Indicator - Kovacs reagent
- 2 Indicator - lead acetate paper
- 3 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 | 100 - 999 CFU | 37°C for 24 hours | Turbid growth |
| | | <i>Enterococcus faecalis</i> ATCC®29212 | 100 - 999 CFU | 37°C for 24 hours | Turbid growth |

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 2,000 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 loss on drying, ash and chloride to less than or equal to and total nitrogen to greater 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) | | |
| Chemical Characteristics | Addition of nitrite result | Change control | BT-CC-1400 |