

## OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

### PEPTONE BACTERIOLOGICAL LP0037

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#### 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    | <sup>1</sup> Positive |
| Hydrogen sulphide production | 1%  | <i>Salmonella enteritidis</i> ATCC®13076 | 35 ± 2°C for 42-48 hours | <sup>2</sup> Positive |
| Acetylmethylcarbinol         | 1% + 0.5% NaCl + 0.5% Dextrose                        | <i>Enterobacter aerogenes</i> ATCC®13048 | 37°C for 24 hours        | <sup>3</sup> Positive |

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

|   |                               |              |
|---|-------------------------------|--------------|
|  | Document Owner Department: QC | BT-SPEC-0397 |
|   |                               | Page 2 of 2  |
| OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION                                   |                               |              |
| PEPTONE BACTERIOLOGICAL LP0037  |                               |              |

| 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.<br>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  |