

# TRYPTONE USP

PEPTONE : CULTURE OF A LARGE VARIETY OF MICROORGANISMS

## 1 INTENDED USE

Tryptone USP is suitable for a wide variety of uses in general bacteriology for the preparation of culture media. As a result of its high tryptophan concentration, it is used for the detection of indole production. Lacking fermentable carbohydrates, it is included in media used to study sugar fermentations. Because of its compatibility with other ingredients, peptones or extracts, Tryptone USP is included in the composition of media intended for the growth and enumeration of bacteria in water, milk, other food products, pharmaceuticals and cosmetics. Combined with papaic digest of soybean meal, it is used for the preparation of Tryptone Soy Broth and Tryptone Soy Agar.

## 2 DESCRIPTION

Tryptone USP is obtained by the pancreatic digestion of a high quality casein.

As a result of the relatively constant purity of the starting material used, Tryptone USP furnishes efficient and consistent results, in particular in studies on the metabolism and growth of various microorganisms.

The method of preparation has been designed to maximize the reduction in calcium levels in the finished product. Tryptone USP can be used to prepare phosphate-containing media characterized by their clear, light nature, as well as by the absence of significant precipitates after autoclaving.

## 3 TYPICAL ANALYSIS

### Physical characteristics :

|                                                                       |             |
|-----------------------------------------------------------------------|-------------|
| - Appearance, powder color .....                                      | Cream-white |
| - Solubility in water at 5 % .....                                    | total       |
| - pH of an aqueous solution at 5 % .....                              | 7,0 ± 0,7   |
| - Stability at pH 7,0 after autoclaving for 15 minutes at 121 °C..... | stable      |

### Chemical characteristics :

|                                      |                  |
|--------------------------------------|------------------|
| - Biuret reaction .....              | positive         |
| - Total Nitrogen.....                | 12,5 ± 0,5 %     |
| - α-amino Nitrogen.....              | 4,0 ± 0,1 %      |
| - Indole.....                        | absent           |
| - Nitrites .....                     | absent           |
| - Chloride (expressed as NaCl) ..... | less than 1,0 %  |
| - Calcium.....                       | less than 0,1 %  |
| - Sulfuric ash.....                  | less than 17,0 % |
| - Loss on drying .....               | less than 6,0 %  |

### Total amino acids (in g per 100 g of product) :

|                       |           |
|-----------------------|-----------|
| - Aspartic acid ..... | 6,9       |
| - Threonine .....     | 3,3       |
| - Serine .....        | 4,1       |
| - Glutamic acid.....  | 18,5      |
| - Proline .....       | 9,0       |
| - Glycine.....        | 3,2       |
| - Alanine.....        | 3,1       |
| - Valine.....         | 6,1       |
| - Cystine.....        | not dosed |
| - Methionine .....    | 2,4       |
| - Isoleucine .....    | 4,9       |
| - Leucine .....       | 8,1       |
| - Tyrosine.....       | 1,5       |
| - Phenylalanine ..... | 4,9       |

|                    |     |
|--------------------|-----|
| - Lysine .....     | 7,6 |
| - Histidine .....  | 2,9 |
| - Arginine .....   | 3,2 |
| - Tryptophan ..... | 1,2 |

#### Microbiological characteristics :

|                                         |          |
|-----------------------------------------|----------|
| - Indole production .....               | positive |
| - H <sub>2</sub> S production .....     | positive |
| - Acetylmethylcarbinol production ..... | positive |
| - Detection of fermentable sugars ..... | negative |

#### 4 MICROBIOLOGICAL CONTROLS

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|                                         |                      |
|-----------------------------------------|----------------------|
| - Total viable aerobic mesophiles.....  | less than 5000 cfu/g |
| - Thermoresistant spores in 1 gram..... | ..absent             |

#### 5 PACKAGING / STORAGE / SHELF LIFE

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|                    |         |
|--------------------|---------|
| 500 g bottle ..... | A1401HA |
| 5 kg drum .....    | A1401GC |

Store between 2 and 30 °C, up until the expiration date indicated on the label.

#### 6 ADDITIONAL INFORMATION

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The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

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