

July 12, 2018

## Specifications

### **TREHA™**

**Definition:** Non-reducing disaccharide consisting of two glucose molecules bound in an  $\alpha, \alpha$ -1,1 linkage

**Recommended Storage conditions:** Store at 1°C to 30°C in a dry place out of direct sunlight. Do not store with materials having strong odors. Single stack pallets.

**Shelf Life:** Three (3) years from the production date

**Package:** Kraft paper bag (Net 20 kg)

**Uses:** For foods

| Variables                                    | Specifications                                            | Methods                                                                                                                                                                | Frequency |
|----------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Description                                  | Whitish crystalline powder, odorless and no unusual taste | Sensory test                                                                                                                                                           | Every lot |
| Loss on drying                               | Not more than 1.5%                                        | Heat-drying method under ordinary pressure (5 g, 60°C, 5 h) [Shou-Shoku-Hyou No. 139 notified by Deputy Secretary-General of Consumer Affairs Agency in Japan in 2015] | Every lot |
| Total ash                                    | Not more than 0.05%                                       | Direct ashing method [Shou-Shoku-Hyou No. 139 notified by Deputy Secretary-General of Consumer Affairs Agency in Japan in 2015]                                        | Every lot |
| pH                                           | 4.5 – 6.5                                                 | pH determination (30%) [JIS*1 Z 8802]                                                                                                                                  | Every lot |
| Color in solution                            | Not more than 0.100                                       | Absorption spectrophotometer (30%) [JAS*2 1412]                                                                                                                        | Every lot |
| Turbidity                                    | Not more than 0.050                                       | Absorption spectrophotometer (30%) [JAS*2 1412]                                                                                                                        | Every lot |
| Assay, % Trehalose (on the anhydrous basis)  | Not less than 98.0%                                       | HPLC method [Industrial Analytical Methods for Starch-derived Saccharides]                                                                                             | Every lot |
| Heavy metals (as Pb)                         | Not more than 1 µg/g                                      | "Heavy Metals Limit Test" Method 1 [JSFA*3 General Test]                                                                                                               | Every lot |
| Lead                                         | Not more than 0.1 µg/g                                    | Modified Atomic Absorption Technique [FCC*4]                                                                                                                           | Every lot |
| Arsenic (as As <sub>2</sub> O <sub>3</sub> ) | Not more than 1 µg/g                                      | Arsenic Limit Test, Method 1, Apparatus B [JSFA*3 General Test]                                                                                                        | Every lot |
| Total aerobic microbial count                | Not more than 300 CFU/g                                   | Pour Plate Method, Standard agar [Standard Methods of Analysis for Hygiene Chemists]                                                                                   | Every lot |
| Coliform organisms                           | Negative                                                  | BGLB method [Standard Methods of Analysis for Hygiene Chemists]                                                                                                        | Every lot |
| Total combined yeasts and molds count        | Not more than 100 CFU/g                                   | Pour Plate Method, Potato dextrose agar [Standard Methods of Analysis for Hygiene Chemists]                                                                            | Every lot |
| Foreign matters                              | Not observed                                              | Visual examination                                                                                                                                                     | Every lot |

\*1 Japanese Industrial Standards

\*2 Japanese Agricultural Standards

\*3 Japan's Specifications and Standards for Food Additives

\*4 Food Chemical Codex

  
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