

# CERTIFICATE OF ANALYSIS

|                     |  |
|---------------------|--|
| Product Description | D-MALTOSE, MONOHYDRATE<br>CRYSTALLINE<br>4-O- $\alpha$ -D-GLUCOPYRANOSYL-D-GLUCOSE |
| Product Number      | M588   |
| Lot Number          | 12F0588037   |
| Storage Temperature | Room Temperature   |
| Molecular Weight    | 360.32   |
| Formula             | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> ·H <sub>2</sub> O                  |
| CAS Number          | 6363-53-7  |

## Physiochemical Specifications:

| TEST                                     | SPECIFICATION  | RESULTS                    |
|--|--|----------------------------|
| Solubility                               | Soluble in Water @ 100 mg/mL                         | Passes                     |
| pH                                       | Under Development                                    | 5.84                       |
| Physical Appearance<br>Color*<br>Texture | RM-1 to RM-3, or RM-31<br>Fine to Crystalline Powder | RM-31 White<br>Fine Powder |
| Solution Appearance<br>Clarity<br>Color  | Clear<br>Colorless                                   | Clear<br>Colorless         |
| Average Time to Dissolve                 | Within 5 min   | Passes                     |
| Insolubles                               | None   | Passes                     |
| Purity                                   | Minimum 92.0%  | 96.10%                     |
| Water Content                            | For Information Only                                 | 5.2%                       |

\* Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color Preview™).

## Biological Testing:

Test Concentration: 10.0 g/L

| TEST SPECIFICATION   | PLANT CELL LINE   | RESULTS |
|--|-------------------|---------|
| Supports and/or facilitates plant growth and/or shoot proliferation in two or more plant tissue cultured lines with no morphological aberrations to plants | Royal Frost Birch | Passes  |
|  | Blackberry        | Passes  |

The material described in this certificate is highly refined, so as to be considered synthetic from plant starting material. No animal-derived components were used in the manufacture of this product.

**PhytoTechnology Laboratories® provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTechnology Laboratories® shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

Recommended Shelf Life Date: June 2020



Gary Seckinger, Ph.D.



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### **PhytoTechnology Laboratories®**

Mailing Address: P.O. Box 12205, Shawnee Mission, KS 66282-2205  
Phone: 1-888-749-8682 (1-913-341-5343 *Outside the USA & Canada*)  
Fax: 1-888-449-8682 (1-913-341-5442 *Outside the USA & Canada*)  
Visit our Web Site at <http://www.phytotechlab.com>



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