## **CERTIFICATE OF ANALYSIS**

Product Description L-GLUTAMIC ACID

(S)-2-AMINOPENTANEDIOIC ACID

Product Number G399

Lot Number 06C39901

Storage Temperature Room Temperature

Molecular Weight 147.13 Formula  $C_5H_9NO_4$ CAS Number 56-86-0

## **Physiochemical Specifications:**

| TEST                     | SPECIFICATION      | RESULTS            |
|--------------------------|--------------------|--------------------|
| Solubility               | Soluble in Water   | Passes             |
| pH (5 g/L)               | Under Development  | 3.2                |
| Physical Appearance      |                    |                    |
| Color*                   |                    |                    |
|                          | PM-1 to PM-4       | PM-1 White         |
| Texture                  | Crystalline Powder | Crystalline Powder |
| Solution Appearance      |                    |                    |
| Clarity                  | Clear              | Clear              |
| Color                    | Colorless          | Colorless          |
| Average Time to Dissolve | Within 15 min      | Passes             |
| Insolubles               | None               | Passes             |
| Purity                   | Minimum 98.0%      | 98.6%              |

<sup>\*</sup> Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color PreviewTM).

## **Biological Testing:**

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

The material described in this certificate was manufactured in the United States of America and is synthetic or plant derived in nature. No animal components were used in the manufacture of this product.

PhytoTech Labs Inc. provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTech Labs Inc. 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.

Date of Release: 30-May-2023

Recommended Shelf-Life Date: May 2031

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