CERTIFICATE OF ANALYSIS

Product Description Carbenicillin, Disodium Salt

Product Number C346
Lot Number 03L34645
Storage Temperature 2-6° C
Molecular Weight 422.4

Formula $C_{17}H_{16}N_2O_6SNa_2$

CAS Number 4800-94-6

Physiochemical Specifications:

| TEST | SPECIFICATION | RESULTS |
|--------------------------|---------------------------|---------------------------|
| Solubility | Soluble in Water | Complies |
| pH (0.05 g/L) | 4.0-6.5 | 6.09 |
| Physical Appearance | | |
| Color | 2149-70 (White Chocolate) | 2149-70 (White Chocolate) |
| | 2147-70 to 2151-70 | |
| Texture | Fine, Fluffy Powder | Fine powder |
| Solution Appearance | Clear, Colorless | Clear, colorless |
| Average Time to Dissolve | Within 1 min | Within 1 minute |
| Precipitation Formation | None | None |
| Potency | >650 ug/mg | 928.6 ug/mg |

Biological Testing:

| TEST SPECIFICATION | PLANT CELL LINE | RESULTS |
|------------------------------------|-----------------|----------------------------------|
| This product does not promote | Boston Fern | Passes—contamination of the |
| tissue growth. Tissue necrosis or | | medium on which the plant tissue |
| death is possible. This product is | | was placed was reasonably |
| used to control contamination of | | controlled |
| the medium. | Hosta | Passes—contamination of the |
| | | medium on which the plant tissue |
| | | was placed was reasonably |
| | | controlled |

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

Phyto Technology Laboratories, LLC provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. Phyto Technology 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.

Amy M. Brooks

Quality Assurance Manager



PhytoTechnology Laboratories, LLC

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