

CERTIFICATE OF ANALYSIS

Product Description DL-PHOSPHINOTHRICIN, MONOAMMONIUM SALT
PPT; 2-AMINO-4-(HYDROXYMETHYLPHOSPHINYL)BUTANOIC ACID,
MONOAMMONIUM SALT; GLUFOSINATE-AMMONIUM

Product Number P679

Lot Number 12L0679023

Storage Temperature Room Temperature

Molecular Weight 198.19

Formula $C_5H_{15}N_2O_4P$

CAS Number 77182-82-2

Physiochemical Specifications:

| TEST | SPECIFICATION | RESULTS |
|---|--|--------------------|
| Solubility | Soluble in Water @ 1 mg/mL | Passes |
| pH | Under Development | 4.1 |
| Physical Appearance Color* | RM-1 to RM-5, 2143-70 to 2148-70, 2019-70 to 2023-70, 2149-40 to 2154-40, or Colorless | RM-1 Off-White |
| Texture | Fine Powder to Crystals | Fine Powder |
| Solution Appearance Clarity Color | Clear Colorless | Clear Colorless |
| Average Time to Dissolve | Within 5 min | Passes |
| Insolubles | None | Passes |
| FTIR | Conform to Structure | Passes |
| Purity | Minimum 90.0% | 95.3 % |

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

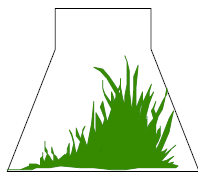
The material described in this certificate is synthetic. No animal- or plant-derived components were used in the manufacture of this product.

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: November 2020



Gary Seckinger, Ph.D.



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