

# CERTIFICATE OF ANALYSIS

Product Description      MES, MONOHYDRATE  
   2-(N-MORPHOLINO)ETHANESULFONIC ACID  
Product Number          M825  
Lot Number                SWS0825090  
Storage Temperature    Room Temperature  
Molecular Weight        213.3 g/mol  
Formula                    C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>S•H<sub>2</sub>O  
CAS Number              145224-94-8

## Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 100 mg/mL	Passes
pH	Under Development	2.8
Physical Appearance: Color* Texture	PM-1 to PM-4 Fine to Crystalline Powder that may have larger clumps	PM-1 Off-White Crystalline Powder
Solution Appearance: Clarity Color	Clear Colorless	Clear Colorless
Average Time to Dissolve (For Information Only)	Within 5 min	5 min
Insolubles	None	Passes
FTIR	Conforms to Structure	Passes
Purity	Minimum 98.0%	99.90%
Loss on Drying	For Information Only	7.58%

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

## Biological Testing:

Test Concentration: 1.0 g/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
This product is commonly used as a buffering agent. It is tested with two or more plant cell lines to ensure there are no phytotoxic impurities that would inhibit growth or produce morphological aberrations to the plants.	Sugar Cane	Passes
	Coreopsis	Passes

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.**

Date of Release: 27-November-2017

Recommended Shelf Life Date: November 2025



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## PhytoTechnology Laboratories®

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