

CERTIFICATE OF ANALYSIS

Product Description MES, MONOHYDRATE
2-(N-MORPHOLINO)ETHANESULFONIC ACID
Product Number M825
Lot Number 10D0825070
Storage Temperature Room Temperature
Molecular Weight 213.3
Formula $C_6H_{13}NO_4S \cdot H_2O$
CAS Number 145224-94-8

Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 100 mg/mL	Passes
pH	2.5 – 4.5	3.6
Physical Appearance Color* Texture	PM-1 to PM-4 Fine to Crystalline Powder that may have larger clumps	PM-4 White Crystalline Powder
Solution Appearance Clarity Color	Clear Colorless	Clear Colorless
Average Time to Dissolve	For Information Only (Approx. 5 min)	Passes
Insolubles	None	Passes
FTIR	Conforms to Structure	Passes
Purity	Minimum 98.0%	99.70%
Water Content by Karl Fischer	For Information Only	3.01%

* 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.	Achimenes	Passes
	Cryptocoryne Green	Passes

The material described in this certificate is synthetic. No animal- or plant-derived 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: 8-June-2021

Recommended Shelf Life Date: June 2026



David S. Hart
Technical Services Manager

PhytoTech Labs Inc.
14610 W 106TH St. Lenexa, KS 66215
Phone: 1-888-749-8682 or 1-913-341-5343
Fax: 1-888-449-8682 or 1-913-341-5442
Phytotechlab.com