

MES MONOHYDRATE

GMP

CAS #: 145224-94-8

Formula: $C_6H_{13}NO_4S \cdot H_2O$

F.W.: 213.25 g/mol

MESM-4221

BIO PHARMA GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (1M)	260 nm	< = 0.1000 a.u.
	280 nm	< = 0.1000 a.u.
Appearance and Color		White Crystals
Assay		> = 99.0%
Chloride		< = 50 ppm
Color (1M, Alkaline)		Colorless
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Identification, IR		Conforms to Reference Standard
Loss on Drying, 130°C		7 – 10%
pH (5%)		3.1 – 3.5
pH (0.5M)		2.5 – 4.5
pKa		5.9 – 6.3
Residue on Ignition		< = 0.05%
Sulfate		< = 50 ppm
Trace Metals	Arsenic (As)	< = 2 ppm
	Calcium (Ca)	< = 50 ppm
	Cadmium (Cd)	< = 5 ppm
	Cobalt (Co)	< = 5 ppm
	Copper (Cu)	< = 2 ppm
	Chromium (Cr)	< = 5 ppm
	Iron (Fe)	< = 2 ppm
	Lead (Pb)	< = 2 ppm
	Magnesium (Mg)	< = 5 ppm
	Manganese (Mn)	< = 5 ppm
	Nickel (Ni)	< = 5 ppm
	Potassium (K)	< = 50 ppm
	Sodium (Na)	< = 50 ppm
	Zinc (Zn)	< = 5 ppm

General Product Overview

MES Monohydrate is a zwitterionic buffer that is not absorbed through cell membranes and is virtually transparent in UV light. MES is a buffering agent used in many biological and biochemical applications. It is also used as a running buffer for denaturing gel electrophoresis. The characteristics of low UV absorptivity, minimal reactivity, stable pH and solubility in water allow it to be a Good's buffer.

Industry Application

Suitable for use in biological and biotech chemical process applications from R&D through scale cGMP production.

Key Product Features

- Appears as white crystals
- Manufactured in accordance with IPEC
- Manufactured in an enzyme free, hormone free and animal free environment
- Contains no known major food allergens (as defined by FDA and WHO)
- The final product and its raw materials are not derived from nor come into contact with animal parts, animal products, and/or animal byproducts/derivatives.
- Is not subject to genetic modification
- Synonyms: 2-(N-Morpholino) Ethane Sulfonic Acid; 4-Morpholineethanesulfonic Acid Monohydrate

Storage and Shipping Conditions

Refer to SDS.

Standard Shelf Life Policy

Unless otherwise noted on the Shelf-Life Statement and CoA, this product has a 2-year retest date supported by a 3-year ICH Q1 Stability Study (if one is completed).

Package Sizes

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

[Click here to view SDS, CoAs and other supporting regulatory documents on our website.](#)

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