

MES MONOHYDRATE

Low PVS, GMP

CAS #: 145224-94-8

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

F.W.: 213.25 g/mol

MESM-3222

BIO EXCIPIENT GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (1M)	260 nm	≤ 0.1000 a.u.
	280 nm	≤ 0.1000 a.u.
Appearance and Color		White Crystalline Powder
Assay		$\geq 99.5\%$
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 (1.0M)		2.7 – 3.7
pH (0.5M)		2.5 – 4.5
pK _a		5.9 – 6.3
PVS Limit Test		≤ 1 ppm
Residue on Ignition		$\leq 0.05\%$
Solubility (5%)		Passes Test
Sulfate		≤ 50 ppm
Trace Metals	Arsenic (As)	≤ 2 ppm
	Copper (Cu)	≤ 2 ppm
	Iron (Fe)	≤ 2 ppm
	Lead (Pb)	≤ 2 ppm
Water, KF		7.9 – 8.9 %

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 MES Monohydrate to be a Good's buffer.

Industry Application

Suitable for use as a cGMP chemical in pharmaceutical manufacturing processes and products.

Key Product Features

- The manufacturing of MES Monohydrate, MESM-3222 is performed at BioSpectra's Bangor, PA facility.
- Appears as a white crystalline powder
- Manufactured in accordance with ICH Q7
- 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 or 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

10kg, 25kg and 50kg pails

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

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