

MES MONOHYDRATE

BIOTECH, 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.
Assay		$\geq 99.0\%$
Appearance and Color		White / Crystals
Chloride		≤ 50 ppm
Color (1M, Alkaline)		Colorless
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Heavy Metals (as Pb)		≤ 2 ppm
Identification, IR		Conforms to Reference Standard
Loss on Drying @ 130°C		7 – 10%
pH (5% solution)		3.1 – 3.5
pH (0.5M)		2.5 – 4.5
pK _a		5.9 – 6.3
Residue on Ignition		$\leq 0.05\%$
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

Country of Origin: USA

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This is used as a high purity, GMP, Reagent grade product, purified under full cGMP conditions. 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 used as a Good's buffer.

General Product Description

- Appears as a white crystalline product
- Manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- 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
- Visit the product page on our website (www.biospectra.us) for additional information, supporting regulatory documents, and CoFAs.

Storage and Shipping Conditions

Refer to SDS.

Standard Shelf Life Policy

Each Certificate of Analysis will contain a 2-year retest/recertification date supported by a 3-year ICH Q1 Stability Study (if one is completed).

Package Sizes

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

Standard Lead Time

1-2 weeks