

MES MONOHYDRATE

BET*, LEI**, GMP

CAS #: 145224-94-8

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

F.W.: 213.25 g/mol

MESM-3251

BIO EXCIPIENT GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (0.1M)	260 nm	< = 0.04 a.u.
Appearance and Color		White Crystals
Assay		> = 99.5%
Chloride		< = 50 ppm
Color (1M, Alkaline)		Colorless
Endotoxin		< 50 EU/g
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Identification, IR		Conforms to Reference Standard
Loss on Drying, 130°C		7 – 9%
Microbial Content	TAMC	< = 100 CFU/g
	TYMC	< = 100 CFU/g
pH (1%)		3.0 – 5.0
pKa		5.9 – 6.3
Residue on Ignition		< = 0.05%
Solubility (5%)		Passes Test
Sulfate		< = 50 ppm
Trace Metals	Arsenic (As)	< = 1.5 ppm
	Antimony (Sb)	< = 9 ppm
	Barium (Ba)	< = 70 ppm
	Cadmium (Cd)	< = 0.2 ppm
	Cobalt (Co)	< = 0.5 ppm
	Copper (Cu)	< = 30 ppm
	Chromium (Cr)	< = 110 ppm
	Iron (Fe)	< = 2 ppm
	Lead (Pb)	< = 0.5 ppm
	Lithium (Li)	< = 25 ppm
	Mercury (Hg)	< = 0.3 ppm
	Molybdenum (Mo)	< = 150 ppm
	Nickel (Ni)	< = 2 ppm
	Tin (Sn)	< = 60 ppm
	Vanadium (V)	< = 1 ppm
Water, KF		7.8 – 8.9%

*Bioburden and Endotoxin Tested **Low Elemental Impurities

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-3251 is performed at BioSpectra's Bangor, PA facility.
- Appears as white crystals
- 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

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

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