

MES MONOHYDRATE

BIOTECH, GMP

BIO PHARMA GRADE / MESM-4221

$C_6H_{13}NO_4S \cdot H_2O$ * F.W. 213.25 g/mol * CAS# 145224-94-8

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This product is used as a high purity, GMP Reagent grade. 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 Excipient to be used as a Good's buffer.

SPECIFICATIONS

ANALYSIS		SPECIFICATION
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Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
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	
Absorbance (1M)	260 nm	≤ 0.1000 a.u.
	280 nm	≤ 0.1000 a.u.

Appearance and Color	White / Crystals
Assay	≥ 99 %
Chloride	≤ 50 ppm
Color (1M, Alkaline)	Colorless
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	≤ 0.05%
Sulfate	≤ 50 ppm

General Product Description:

Molecular Formula: C₆H₁₃NO₄S H₂O

Molecular Weight: 213.25 g/mol

CAS Number: 145224-94-8

MES, Monohydrate Biotech:

- Appears as a white crystalline product
- Is manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- Has no known major food allergens (as defined by FDA and WHO)
- The final product nor its raw materials are not derived from nor come into contact with animals, 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

Shelf Life Policy:

Three-year expiry from the date of manufacture.

Storage and Shipping Conditions:

Please refer to the SDS for storage and shipping conditions.

Package Size:

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