

MES MONOHYDRATE BIOTECH

GMP

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

MES Monohydrate is used as a high purity, GMP Reagent Grade product. 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		SPECIFICATIONS
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Trace Elements	Arsenic (As)	≤ 2 ppm
	Calcium (Ca)	≤ 50 ppm
	Cadmium (Cd)	≤ 5.0 ppm
	Cobalt (Co)	≤ 5.0 ppm
	Copper (Cu)	≤ 2 ppm
	Chromium (Cr)	≤ 5.0 ppm
	Iron (Fe)	≤ 2 ppm
	Lead (Pb)	≤ 2 ppm
	Magnesium (Mg)	≤ 5.0 ppm
	Manganese (Mn)	≤ 5.0 ppm
	Nickel (Ni)	≤ 5.0 ppm
	Potassium (K)	≤ 50 ppm
Absorbance (1M)	Sodium (Na)	≤ 50 ppm
	Zinc (Zn)	≤ 5.0 ppm
	260nm	0.1000 a.u. max
	280nm	0.1000 a.u. max
Appearance and Color		White / Crystals
Assay		99.0% min.

Chloride	0.005% max.
Color (1M, Alkaline)	Colorless
Heavy Metals (as Pb)	2 ppm max.
Identification (IR)	Passes Test
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% max.
Sulfate	0.005% max.

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