

# MES HYDRATE

## BIOBURDEN TESTED, GMP

CAS #: 1266615-59-1

Formula:  $C_6H_{13}NO_4S \cdot xH_2O$ 

F.W.: 195.24 g/mol (anhydrous basis)

### MESH-4250

### BIO PHARMA GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (0.1M)	260 nm	$\leq 0.04$ a.u.
	280 nm	$\leq 0.02$ a.u.
Appearance and Color		White Powder
Assay, Anhydrous Basis		$\geq 99.5\%$
Cytotoxicity (50%)		Passes Test
Enzymes	DNase, Exonuclease	None Detected
	NICKase	None Detected
	RNase	None Detected
	Protease	None Detected
Identification, IR		Conforms to Reference Standard
pH (1%)		3.5 – 4.1
Solubility (0.1M)		Clear and Colorless
Microbial Content	TAMC	$\leq 100$ CFU/g
	TYMC	$\leq 100$ CFU/g
Trace Metals	Aluminum (Al)	$\leq 5$ ppm
	Antimony (Sb)	$\leq 5$ ppm
	Arsenic (As)	$\leq 3$ ppm
	Barium (Ba)	$\leq 5$ ppm
	Bismuth (Bi)	$\leq 5$ ppm
	Cadmium (Cd)	$\leq 5$ ppm
	Calcium (Ca)	$\leq 20$ ppm
	Chromium (Cr)	$\leq 5$ ppm
	Cobalt (Co)	$\leq 5$ ppm
	Copper (Cu)	$\leq 5$ ppm
	Iron (Fe)	$\leq 5$ ppm
	Lead (Pb)	$\leq 5$ ppm
	Lithium (Li)	$\leq 5$ ppm
	Manganese (Mn)	$\leq 5$ ppm
	Magnesium (Mg)	$\leq 5$ ppm
	Molybdenum (Mo)	$\leq 5$ ppm
	Nickel (Ni)	$\leq 5$ ppm
	Sodium (Na)	$\leq 20$ ppm
	Zinc (Zn)	$\leq 5$ ppm
Water, KF		5.0 – 8.9%

### Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This is a high purity, reagent grade product, purified under cGMP conditions. MES Hydrate 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 biopharmaceutical and biotechnological applications. The characteristics of low UV absorptivity, minimal reactivity, stable pH and solubility in water allow it to be used as a Good's buffer.

### General Product Description

- Appears as a white crystalline product
- Manufactured in accordance with IPEC
- 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) ethanesulfonic Acid, 4-Morpholineethanesulfonic Acid Hydrate
- Visit the product page on our website ([www.biospectra.us](http://www.biospectra.us)) for additional information, supporting regulatory documents, and CoAs.

### Storage and Shipping Conditions

Refer to SDS.

### Standard Shelf Life Policy

Each Certificate of Analysis will contain a 2-year retest 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

2-4 weeks

### Country of Origin: USA

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