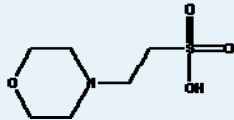


# MES Monohydrate (Free Acid)

----- Biological Buffers

Product Name:	MES Monohydrate
Cat No:	ZB089
CAS#:	[145224-94-8]
Category:	Biological Buffers
Molecular Formula:	C <sub>6</sub> H <sub>13</sub> NO <sub>4</sub> S
Formula Weight:	213.3
Structure:	
Purity:	>99.0%
Form:	White Crystalline Powder
Description:	PH: 2.5 - 4.0 (0.5 M in H <sub>2</sub> O, 25°C) Ca ..... <20PPM Fe ..... <5PPM Pb ..... <3PPM A <sub>260</sub> 0.5M, water..... <0.025 A <sub>280</sub> 0.5M, water..... <0.020
Synonyms:	2-(4-Morpholino)ethanesulfonic acid monohydrate; 2-[N-morpholino]ethanesulfonic acid; 4-Morpholineethanesulfonic acid; 4-Morpholinoethanesulfonic acid hydrate; MES; MES hydrate; MES monohydrate;
Size:	8601201000100:100g; 8601202000500:500g; 8601203001000:1kg; 8601204025000:25kgs; Bulk;
Price:	EUR350.00/Kg

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## Description

**MES Monohydrate** is also known as [2-(N-Morpholino) ethanesulfonic Acid]. MES-Buffer has a pKa value near physiological pH, it is not absorbed through cell membranes, and it is essentially transparent to UV light. A biological buffer mainly used in plant cell cultures.

## Solubility:

MES is soluble in water, giving a clear colorless solution at concentrations of 0.5 M or higher. The pH of a solution should be between 2.5 and 5, depending on concentration. A saturated solution at 0 °C is approximately 0.65 M. Solutions should be stable at 2-8 °C for months.

## Sterilization:

Sterilization should be by filtration through 0.2 mm filters. Autoclaving is not recommended for any sulfonic acid buffers. If buffers must be nuclease-free, it is best to treat the water, then add the buffer solids after autoclaving. When MES solutions are autoclaved, they turn yellow (although pH does not change measurably).

The identity of the yellow breakdown product is unknown.

## Storage

RT

Powder: Ambient (15-30C); protected from light

**Shipped at RT**



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