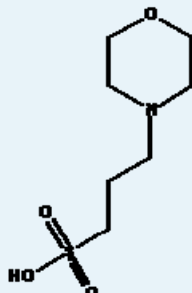


# MOPS (Free Acid)

----- Biological Buffers

Product Name:	MOPS
Cat No:	ZB091
CAS#:	[1132-61-2]
Category:	Biological Buffers
Molecular Formula:	C <sub>7</sub> H <sub>15</sub> NO <sub>4</sub> S
Formula Weight:	209.3
Structure:	
Purity:	>99%
Form:	White Crystalline Powder
Description:	pH range .....6.5-7.9 pKa 25°C.....7.2
Synonyms:	3-[N-morpholino]propanesulfonic acid; 3-[N-morpholino]propanesulfonic acid (MOPS); 3-N-morpholino propansulfonic acid; 4-Morpholinepropanesulfonic acid; MOPS;
Size:	8608101000100:100g; 8608102000500:500g; 8608103001000:1kg; 8608104025000:25kg; Bulk;
Price:	EUR250.00/Kg

## Description

MOPS is a zwitterionic amino acid which acts as one of the "Good" buffers.<sup>1</sup> It is a structural analog to MES; however, MOPS is a more suitable biological buffer than MES because the pH range is closer to pH 7.4.

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A buffer using MOPS free acid can be prepared by titrating the free acid with sodium hydroxide to the desired pH ( $pK_a \pm 1$ ), using about a half-equivalent of NaOH. A buffer using MOPS sodium salt can be made by mixing equimolar MOPS free acid and MOPS sodium salt solutions to attain a buffer of the desired pH. Titration of a solution of MOPS sodium salt with HCl results in a solution that will contain NaCl, so the ionic strength will be higher than appropriate for some applications.

### **Solubility:**

Soluble in water (to approximately 33% w/w - clear, colorless solution). The pH of a 0.1 M solution of the sodium salt is approximately 10-12 and a 0.1 M solution of the free acid is approximately pH 2.5 to 4.0, depending on temperature. Solutions can be stored refrigerated for up to approximately 6 months. Solutions should not be autoclaved<sup>1</sup>; sterilization of solutions should be done by filter sterilization through a 0.2  $\mu$ m filter.

### **Working Concentration:**

Concentrations higher than 20 mM should not be used with mammalian cell cultures.

### **Storage**

RT

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

***Shipped at RT***



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