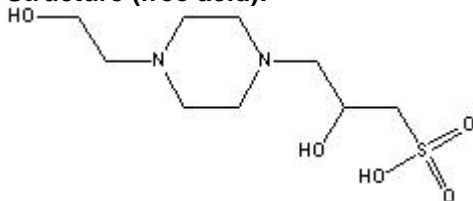


## TECHNICAL INFORMATION

Catalog Number: 151236, 152452  
**HEPPSO**

**Structure (free acid):**



**Molecular Formula:**

*Free Acid*  
C<sub>9</sub>H<sub>20</sub>N<sub>2</sub>O<sub>5</sub>S

*Sodium Salt*  
C<sub>9</sub>H<sub>19</sub>N<sub>2</sub>O<sub>5</sub>SNa

**Molecular Weight:**

268.3

290.3

**CAS #**

68399-78-0

89648-37-3

**pH (1% Aqueous solution)**

~5.0 - 6.0

~10.0 - 10.5

**Synonym:** 4-(2-Hydroxyethyl)piperazine-1-(2-hydroxypropane sulfonic acid)

**pKa:** 7.8 @ 25°C.

**Useful pH Range:** 7.1 - 8.5

**Description:** A Zwitterionic hydrogen buffer for biological research.<sup>1</sup> An efficient separator in protein resolution by IEF.<sup>2</sup>

**Typical Buffer Preparation:** A buffer solution of HEPPSO can be prepared by any of several methods. The free acid can be added to water, then titrated with approximately one-half mole equivalent of sodium hydroxide or potassium hydroxide to the desired pH. Alternatively, equimolar concentrations of HEPPSO and of HEPPSO sodium salt can be mixed in approximately equal volumes and back-titrate with either solution to the appropriate pH. The sodium salt can be titrated with HCl to yield a half-equivalent of sodium chloride; however, the addition of the ionic strength will change the osmolality of the solution.

**Availability:**

Catalog Number	Description	Size
151236	HEPPSO, free acid	10 g 50 g 100 g
152452	HEPPSO, sodium salt	25 g 100 g

**Solubility:** Soluble in water (100 mg/ml - clear, colorless solution)

**References:**

- Ferguson, W.J., et al., *Anal. Biochem.*, v. **104**, 300 (1980).
- Gill, P., *Electrophoresis*, v. **6**, 282 (1985).

U.S. Patent No. 4,169,950