

## **Reagent Grade**

# **HEPES, Sodium Salt**

#### INTENDED FOR USE IN COMMERCIAL MANUFACTURING, DIAGNOSTIC AND LABORATORY APPLICATIONS

HEPES Sodium Salt is a zwitterionic salt which is used in the preparation of a HEPES buffer solution. Its pH range of 9.5-11.5 makes an ideal buffer for pH maintenance. HEPES Sodium Salt interferes with the Folin protein assay. The tendency of this buffer to form radicals makes it unsuitable for redox studies.

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CAS #: 75277-39-3 Molecular Formula: C<sub>8</sub>H<sub>17</sub>N<sub>2</sub>NaO<sub>4</sub>S Solubility in Water (g/L): 990 F.W.: 260.29 g/mol pH @ 20°C: 4.5 - 6.0 Useful pH: 7.8 - 8.2 pK<sub>a</sub> @ 20°C: 7.5

#### **BIO ULTRA GRADE | Product Code: HEPN-5250** C<sub>a</sub>H<sub>47</sub>N<sub>2</sub>NaO<sub>4</sub>S · F.W. 260.29 g/mol. · CAS# 75277-39-3

These are general specifications. BioSpectra will customize our products to meet your quality based requirements.

ANALYSI	S	SPECIFICATIONS
Appearance and Color		White / Crystals
Infrared Spectrum		Conforms to Reference
Solubility (Turbidity) 0.1M aqueous		Clear
Solubility (Color) 0.1M aqueous		Colorless
Solubility (Form) 0.1M aqueous		Solution
Water (by Karl Fischer)		≤ 3.0%
Titration with $H_2SO_4$		≥ 96.0%
Cytotoxicity		Pass
Enzymes	DNase - Nickase DNase – Endo / Exonuclease RNase Detection	Pass Pass Pass
pH 1.0% aqueous		9.5 – 10.5
Endotoxin		≤ 4.5 E.U./g
Yeast and Mold		≤ 100 CFU/g
Bioburden		≤ 100 CFU/g
Protease Detection		Pass
UV Absorbance 260nm 0.1M aqueous		≤ 0.04 Abs UN
UV Absorbance 280nm 0.1M aqueous		≤ 0.2 Abs UN

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### Quality Assurance / Regulatory Support / Quality Control

#### Key Compliance Attributes of Bio Ultra Grade

Suitable for Research and Dia	ignostic Application

- C of A Available for Each Lot
- BioSpectra Supply Chain Audit Trail
- Product Origin Statement Customer Quality Audits
- Customized Additional Specifications
- Enzyme Tested

#### **General Product Description:**

- HEPES Sodium Salt is a White Crystalline product.
- Molecular Formula: C<sub>8</sub>H<sub>17</sub>N<sub>2</sub>NaO<sub>4</sub>S
- Molecular Weight: 260.29 g/mol.
- CAS Number: 75277-39-3.
- Synonyms: 4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt.

#### **Compliance:**

Material represented by this grade is suitable to be used only as the following: Quality System Manufactured Process Chemical for use in further manufacturing or as a reagent chemical for commercial manufacturing, diagnostic and laboratory research. The material represented by this grade is not suitable to be used as an Excipient, Active Pharmaceutical Ingredient, Drug, Drug Product or household item.

#### **Retest Date:**

Two years from date of manufacture, testing and packaging

#### **Storage and Shipping Conditions:**

Ship and Store in ambient temperature.

#### **Package Sizes:**

10kg, 25kg and 50kg pails.



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