

# HEPES, FREE ACID UBLE, GMP

CAS #: 7365-45-9

 Formula: C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub>S

F.W.: 238.30 g/mol

**HEPE-4250**
**BIO PHARMA GRADE**

ANALYSIS	SPECIFICATIONS	
Absorbance (0.1M)	250 nm	< = 0.0500 a.u.
	260 nm	< = 0.0500 a.u.
	280 nm	< = 0.0800 a.u.
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	260 nm	< = 0.0500 a.u.
	280 nm	< = 0.0800 a.u.
Appearance and Color	White Crystals	
Assay, Dried Basis	> = 99.5%	
Chloride	< = 50 ppm	
Endotoxin	< = 5 EU/g	
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Identification, IR	Conforms to Reference Standard	
Insoluble Matter	< = 0.01%	
Loss on Drying	< = 0.5%	
Microbial Content	TAMC	< = 100 CFU/g
	TYMC	< = 100 CFU/g
pH (5%)	5.0 – 6.5	
pK <sub>a</sub>	7.45 – 7.65	
Residue on Ignition	< = 0.1%	
Solubility	Solubility (5%)	Passes Test
	Solubility (0.05M)	Passes Test
Sulfate	< = 50 ppm	
Trace Metals	Arsenic (As)	< = 5 ppm
	Aluminum (Al)	< = 5 ppm
	Bismuth (Bi)	< = 5 ppm
	Calcium (Ca)	< = 10 ppm
	Copper (Cu)	< = 5 ppm
	Iron (Fe)	< = 5 ppm
	Lead (Pb)	< = 1 ppm
	Lithium (Li)	< = 5 ppm
	Molybdenum (Mo)	< = 5 ppm
	Nickel (Ni)	< = 5 ppm
	Potassium (K)	< = 50 ppm
Water, KF	< = 0.1%	

## General Product Overview

This is a high purity, reagent grade product, purified under cGMP conditions. HEPES, Free Acid is a zwitterionic buffer used to maintain pH of media used in cell cultures. It is one of Good's buffers that has a pK<sub>a</sub> value similar to its pH value, making it an ideal buffer for pH maintenance. HEPES is a Good's buffer because it has low UV absorptivity, minimal reactivity, stable pH and is soluble in water.

## Industry Application

Suitable for use in biological and biotech chemical process applications from R&D through scale cGMP production.

## Key Product Features

- 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: N-(2-Hydroxyethyl) Piperazine-N'-2-Ethanesulfonic Acid; 4-(2-Hydroxyethyl) Piperazine-1-Ethanesulfonic Acid

## Storage and Shipping Conditions

Refer to SDS.

## Standard Shelf-Life Policy

Unless otherwise noted on the Shelf-Life Statement and CoA, this product has 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

[Click here to view SDS, CoAs and other supporting regulatory documents on our website.](#)

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