

HEPES, FREE ACID

BIOTECH, LBLE, GMP

CAS #: 7365-45-9

Formula: $C_8H_{18}N_2O_4S$

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		$\geq 99.5\%$
Chloride		≤ 50 ppm
Endotoxin		≤ 5 EU/g
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Heavy Metals		≤ 1 ppm
Identification, IR		Conforms to Reference Standard
Insoluble Matter		$\leq 0.01\%$
Loss on Drying		$\leq 0.5\%$
Microbial Content	TAMC	≤ 100 CFU/g
	TYMC	≤ 100 CFU/g
pH (5% solution)		5.0 – 6.5
pK _a		7.45 – 7.65
Residue on Ignition		$\leq 0.1\%$
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)	≤ 5 ppm
	Lithium (Li)	≤ 5 ppm
	Molybdenum (Mo)	≤ 5 ppm
	Nickel (Ni)	≤ 5 ppm
	Potassium (K)	≤ 50 ppm
Water, KF		$\leq 0.1\%$

Country of Origin: USA

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This is used as a high purity, GMP, Reagent Grade product, purified under full 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 twelve buffers that has a pK_a value similar to its pH value, making it an ideal buffer for pH maintenance. HEPES is used as a Good's buffer because it has low UV absorptivity, minimal reactivity, stable pH and is soluble in water.

General Product Description

- Appears as a white crystalline product
- Manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- 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/derivatives.
- Is not subject to genetic modification
- Synonyms: N-(2-Hydroxyethyl) piperazine-N'-2-ethane sulfonic acid, 2-[4-(2-hydroxyethyl) piperazin-1-yl] ethane sulfonic acid
- Visit the product page on our website (www.biospectra.us) for additional information, supporting regulatory documents, and CofAs.

Storage and Shipping Conditions

Refer to SDS.

Standard Shelf Life Policy

Each Certificate of Analysis will contain a 2-year retest/recertification date supported by a 3-year ICH Q1 Stability Study (if one is completed).

Package Sizes

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

Standard Lead Time

1-2 weeks