

HEPES

BIOTECH, LBLE, GMP

BIO PHARMA GRADE / HEPE-4250

C₈H₁₈N₂O₄S ✦ F.W. 238.30 g/mol ✦ CAS# 7365-45-9

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This product is used as a high purity, GMP Reagent Grade. 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 pKa 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.

SPECIFICATIONS

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.
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	
Enzymes	Potassium (K)	≤ 50 ppm
	DNase	None Detected
	RNase	None Detected
Appearance and Color	Protease	None Detected
		White / Crystals

Assay, Dried Basis		≥ 99.5 %
Chloride		≤ 50 ppm
Endotoxin		≤ 5 EU /g
Heavy Metals		≤ 1 ppm
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% solution)		5.0 – 6.5
pK _a		7.45 – 7.65
Residue on Ignition		≤ 0.1 %
Solubility (5%)		Passes Test
Solubility (0.05M)		Passes Test
Water, KF		≤ 0.1 %
Sulfate		≤ 50 ppm

General Product Description:

Molecular Formula: C₈H₁₈N₂O₄S

Molecular Weight: 238.30 g/mol

CAS Number: 7365-45-9

HEPES, Free Acid Biotech:

- Appears as a white crystalline product.
- Is manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- Has no known major food allergens (as defined by FDA and WHO)
- The final product nor its raw materials are not derived from nor come into contact with animals, animal parts, animal products, and/or animal byproducts or 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.

Shelf Life Policy:

Three-year expiry from the date of manufacture.

Storage and Shipping Conditions:

Please refer to the SDS for storage and shipping conditions.

Package Size:

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

