

HEPES

Low UV, BET*, GMP

CAS #: 7365-45-9

Formula: C₈H₁₈N₂O₄S

F.W.: 238.30 g/mol

HEPE-3251

BIO EXCIPIENT GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (1M)	250 nm	< = 0.0500 a.u.
	260 nm	< = 0.0500 a.u.
	280 nm	< = 0.0500 a.u.
Absorbance (0.05M)	250 nm	< = 0.0500 a.u.
	260 nm	< = 0.0500 a.u.
	280 nm	< = 0.0500 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%
Microbial Content	TAMC	< = 50 CFU/g
	TYMC	< = 50 CFU/g
pH (1%)		4.7 - 5.6
pK _a		7.45 - 7.65
Residue on Ignition		< = 0.1%
Solubility	Solubility (1%)	Passes Test
	Solubility (0.05M)	Passes Test
Sulfate		< = 50 ppm
Trace Metals	Arsenic (As)	< = 5 ppm
	Copper (Cu)	< = 5 ppm
	Iron (Fe)	< = 5 ppm
	Lead (Pb)	< = 1 ppm
Water, KF		< = 0.5%

*Bioburden and Endotoxin Tested

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

General Product Overview

HEPES is a zwitterionic buffer used to maintain pH of media used in cell cultures. It is one of Good's buffers that has a pKa value similar to its pH value, making it an ideal buffer for pH maintenance. A known limitation is its interference with the Folin protein assay. This buffer can form radicals, so it is not suitable for redox studies. 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 as a cGMP chemical in pharmaceutical manufacturing processes and products.

Key Product Features

- The manufacturing of HEPES, HEPE-3251 is performed at BioSpectra's Bangor and Stroudsburg, PA facilities.
- Appears as white crystals
- Manufactured in accordance with ICH Q7
- 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

10kg, 25kg and 50kg pails

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