

# HEPES

Low UV, LBLE, GMP, EXCIPIENT

CAS #: 7365-45-9

Formula:  $C_8H_{18}N_2O_4S$

F.W.: 238.30 g/mol

**HEPE-3251**

**BIO EXCIPIENT GRADE**

ANALYSIS		SPECIFICATIONS
Absorbance (1M)	250 nm	$\leq 0.0500$ a.u.
	260 nm	$\leq 0.0500$ a.u.
	280 nm	$\leq 0.0500$ a.u.
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	260 nm	$\leq 0.0500$ a.u.
	280 nm	$\leq 0.0500$ a.u.
Appearance and Color		White Crystals
Assay, Dried Basis		$\geq 99.5\%$
Chloride		$\leq 50$ ppm
Endotoxin		$\leq 5$ EU/g
Enzymes	DNase	None Detected
	RNase	None Detected
	Protease	None Detected
Identification, IR		Conforms to Reference Standard
Insoluble Matter		$\leq 0.01\%$
Microbial Content	TAMC	$\leq 50$ CFU/g
	TYMC	$\leq 50$ CFU/g
pH (1%)		4.7 - 5.6
pKa		7.45 - 7.65
Residue on Ignition		$\leq 0.1\%$
Solubility	Solubility (1%)	Passes Test
	Solubility (0.05M)	Passes Test
Sulfate		$\leq 50$ ppm
Trace Metals	Arsenic (As)	$\leq 5$ ppm
	Copper (Cu)	$\leq 5$ ppm
	Iron (Fe)	$\leq 5$ ppm
	Lead (Pb)	$\leq 1$ ppm
Water, KF		$\leq 0.5\%$

[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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