

GUANIDINE HYDROCHLORIDE

BIOTECH, MEETS NF, GMP

BIO PHARMA GRADE / GHCL-4223

$\text{NH}_2\text{C}(\text{NH})_2\cdot\text{HCl}$ * F.W. 95.53 g/mol. * CAS# 50-01-1

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This product is used as a high purity, GMP Reagent Grade. Guanidine Hydrochloride Buffer is a strong protein denaturant that functions as a chaotropic agent. As a denaturant, it acts to unfold proteins and turn them into their original polypeptide chains. As a chaotropic agent, it breaks down the structure of proteins. Guanidine Hydrochloride Buffer is commonly used in the purification of RNA by dissociating the RNA into its nucleic acids and protein forms. At higher concentrations, Guanidine Hydrochloride Buffer decreases enzyme activity. It is also used to increase the solubility of hydrophobic molecules.

SPECIFICATIONS

ANALYSIS		SPECIFICATIONS
Trace Metals	Aluminum (Al)	≤ 5 ppm
	Arsenic (As)	≤ 5 ppm
	Barium (Ba)	≤ 5 ppm
	Bismuth (Bi)	≤ 5 ppm
	Calcium (Ca)	≤ 10 ppm
	Cadmium (Cd)	≤ 5 ppm
	Cobalt (Co)	≤ 5 ppm
	Chromium (Cr)	≤ 5 ppm
	Copper (Cu)	≤ 5 ppm
	Iron (Fe)	≤ 5 ppm
	Potassium (K)	≤ 50 ppm
	Lithium (Li)	≤ 5 ppm
	Magnesium (Mg)	≤ 5 ppm
	Manganese (Mn)	≤ 5 ppm
	Molybdenum (Mo)	≤ 5 ppm
	Sodium (Na)	≤ 150 ppm
	Nickel (Ni)	≤ 5 ppm
Lead (Pb) (NF)	≤ 5 ppm	
Strontium (Sr)	≤ 5 ppm	
Zinc (Zn)	≤ 5 ppm	
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected

Acidity (NF)		≤ 0.01%
Appearance and Color		White / Crystals
Assay, Dried Basis (NF)		99.5 - 101.0%
Chloride and Sulfate, Sulfate (NF)		≤ 50 ppm
Identification A, IR (NF)		Conforms to Reference Standard
Identification B, Absorbance (NF)	230 nm	≤ 0.2000 a.u.
	260 nm	≤ 0.0300 a.u.
	275 nm	≤ 0.0300 a.u.
Identification C, Chloride (NF)		Meets the Requirements of Test A
Limit of Nitrate (NF)		≤ 50 ppm
Loss on Drying (NF)		≤ 0.5%
Melting Range (NF)		184 – 188°C
pH (6M)		4.5 - 6.0
Residue on Ignition (NF)		≤ 0.05%
Solubility (6M)		Passes Test
Water, KF		≤ 0.3%
Water Insoluble (NF)		≤ 0.05%

General Product Description:

Molecular Formula: CH₅N₃ HCl

Molecular Weight: 95.53 g/mol

CAS Number: 50-01-1

Guanidine Hydrochloride 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
- Appears as a white crystalline product.
- Synonyms: Guanidine Monohydrochloride,
- Guanidinium Chloride, Guanidinium Hydrochloride Buffer.

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