

# GUANIDINE HYDROCHLORIDE

BIOTECH, NF, GMP

CAS #: 50-01-1

Formula: CH<sub>5</sub>N<sub>3</sub> HCl

F.W.: 95.53 g/mol

**GHCL-4223**

**BIO PHARMA GRADE**

ANALYSIS		SPECIFICATIONS
Acidity (NF)		≤ 0.01%
Appearance and Color		White/Crystals
Assay, Dried Basis (NF)		99.5 – 101.5%
Chloride and Sulfate, Sulfate (NF)		≤ 50 ppm
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected
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
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)	≤ 5 ppm
	Strontium (Sr)	≤ 5 ppm
	Zinc (Zn)	≤ 5 ppm
Water, KF		≤ 0.3%
Water Insoluble (NF)		≤ 0.05%

## Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

This is a high purity, GMP, Reagent Grade product, purified under full cGMP conditions. 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. It is commonly used in the purification of RNA by dissociating the RNA into its nucleic acids and protein forms. At higher concentrations, Guanidine HCl Buffer decreases enzyme activity. It is also used to increase the solubility of hydrophobic molecules.

## 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: Guanidine Monohydrochloride, Guanidinium Chloride, Guanidinium Hydrochloride Buffer
- Visit the product page on our website ([www.biospectra.us](http://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

**Country of Origin: USA**

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