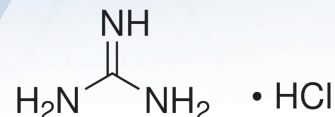


### GUANIDINE HCl

#### INTENDED FOR USE IN COMMERCIAL MANUFACTURING, DIAGNOSTIC AND LABORATORY APPLICATIONS

Guanidine Hydrochloride 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 is commonly used in the purification of RNA by dissociating the RNA into its nucleic acids and protein forms. At higher concentrations, Guanidine Hydrochloride decreases enzyme activity. It is also used to increase the solubility of hydrophobic molecules.



**CAS #:** 50-01-1

**Molecular Formula:**

$\text{CH}_5\text{N}_3 \cdot \text{HCl}$

**Solubility in Water (g/L):** 800

**F.W.:** 95.53 g/mol

**pH @ 20°C:** 4.5 - 6.0

#### BIO ULTRA GRADE, ultrapure | Product Code: GHCL-5222 | Previously: GH5222

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

These are general specifications. BioSpectra will customize our products to meet your quality based requirements.

ANALYSIS		SPECIFICATIONS
Appearance		Colourless Crystals
Solubility (6M, 50% w/w, in water)		Clear, colorless
Assay		99.7% min.
Melting Point		185-188°C
Water		0.1% max.
Iron		0.1 mg/kg max.
Heavy Metals (Pb)		10 mg/kg max.
pH (6M, 50% w/w, in water)		4.5 – 7.0
UV-Absorbance (6M, 50% in water)	@ 280 nm	Informative
	@ 260 nm	0.03 a.u. max.
	@ 240 nm	Informative
	@ 230 nm	Informative
Ammonium		0.01% max.
Dicyandiamide		0.01% max.
Melamine		0.01% max.
Enzymes (0.1M aq.sol.)	Protease	Informative
	Phosphatase	Informative
	DNase	Informative
	RNAse	Informative



## Key Compliance Attributes of Bio Ultra Grade

Suitable for Research and Diagnostic Application
C of A Available for Each Lot
BioSpectra Supply Chain Audit Trail
Product Origin Statement
Customer Quality Audits
Customized Additional Specifications
Enzyme Tested



## General Product Description:

- Guanidine HCl is a White Crystalline product.
- Molecular Formula:  $\text{NH}_2\text{C}(\text{NH})\text{NH}_2\text{HCl}$
- Molecular Weight: 95.53 g/mol.
- CAS Number: 50-01-1.

Synonyms: Guanidine Monohydrochloride, Guanidinium Chloride, Guanidinium Hydrochloride.

## Compliance:

Material represented by this grade is suitable for use as a process chemical. This grade of Guanidine Hydrochloride is not suitable to be used as an Excipient, Active Pharmaceutical Ingredient, Drug, Drug Product or Household Item.

## Retest Date:

Two years from the date of manufacture, testing and packaging.

## Storage and Shipping Conditions:

Ship and Store in ambient temperature.

## Package Sizes:

10kg, 25 kg and 50 kg pails.