

GUANIDINE THIOCYANATE BIOTECH

GMP

GTHI-4221

$C_2H_6N_4S$ * F.W. 118.16 g/mol * CAS# 593-84-0

Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

as a high purity, GMP Reagent Grade. Guanidine Thiocyanate is a chaotropic agent. As one of the strongest protein denaturants, it inactivates nucleases more than twice as fast as Guanidine Hydrochloride. Guanidine Thiocyanate is preferred for the purification of RNA because it dissociates the RNA into its nucleic acids and protein forms. Higher molarity solutions of Guanidine Thiocyanate irreversibly inactivate RNase. Guanidine Thiocyanate causes proteins to dissolve readily, thus disintegrating cellular structures.

SPECIFICATIONS

ANALYSIS		SPECIFICATIONS
Trace Metals	Arsenic (As)	≤ 5 ppm
	Aluminum (AL)	≤ 5 ppm
	Barium (Ba)	≤ 5 ppm
	Bismuth (Bi)	≤ 5 ppm
	Calcium (Ca)	≤ 10 ppm
	Cadmium (Cd)	≤ 5 ppm
	Chromium (Cr)	≤ 5 ppm
	Cobalt (Co)	≤ 5 ppm
	Copper (Cu)	≤ 5 ppm
	Iron (Fe)	≤ 5 ppm
	Potassium (K)	≤ 50 ppm
	Lead (Pb)	≤ 5 ppm
	Lithium (Li)	≤ 5 ppm
	Magnesium (Mg)	≤ 5 ppm
	Manganese (Mn)	≤ 5 ppm
	Molybdenum (Mo)	≤ 5 ppm
	Sodium (Na)	≤ 5000 ppm
	Nickel (Ni)	≤ 5 ppm
Strontium (Sr)	≤ 5 ppm	
Zinc (Zn)	≤ 5 ppm	
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected
Absorbance	280 nm	0.300 a.u. maximum
	300 nm	0.050 a.u. maximum
	340 nm	0.030 a.u. maximum

Appearance and Color	White / Crystals
Assay	99.0% - 101.0%
Identification, (IR)	Passes Test
Loss on Drying	0.5% maximum
pH (5% Solution)	5.0 -7.0
Melting Point	115-121°C
Sulfated Ash	≤ 0.5%
Infrared Spectrum	Conforms to Structure
Sulfate (SO4)	≤ 50 mg/kg

General Product Description:

Molecular Formula: C₂H₆N₄S

Molecular Weight: 118.16 g/mol

CAS Number: 593-84-0

Guanidine Thiocyanate 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
- Synonyms: Guanidine Hydro Thiocyanate, Guanidine Isothiocyanate, Guanidine Mono Thiocyanate.

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