

GUANIDINE THIOCYANATE

GMP

CAS #: 593-84-0

Formula: C₂H₆N₄S

F.W.: 118.16 g/mol

GTHI-4221

BIO PHARMA GRADE

ANALYSIS		SPECIFICATIONS
Absorbance (1.7M)	280 nm	< = 0.300 a.u.
	300 nm	< = 0.050 a.u.
	340 nm	< = 0.030 a.u.
Appearance and Color		White Crystals
Assay, Dried Basis		99.0 – 101.0%
Enzymes	DNase	None Detected
	Protease	None Detected
	RNase	None Detected
Identification, IR		Conforms to Reference Standard
Loss on Drying		< = 0.5%
Melting Range		115 – 121°C
pH (5%)		5.0 – 7.0
Sulfated Ash		< = 0.5%
Sulfate		< = 50 ppm
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

General Product Overview

Guanidine Thiocyanate is a chaotropic agent. As one of the strongest protein denaturants, it inactivates nucleases more efficiently than 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.

Industry Application

Suitable for use in biological and biotech chemical process applications from R&D through scale cGMP production.

Key Product Features

- Appears as a white crystalline product
- Manufactured in accordance with IPEC
- 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: Guanidine Isothiocyanate

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

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

[Click here to view SDS, CoAs and other supporting regulatory documents on our website.](#)

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