# Guanidine thiocyanate, Ultrapure
# PRODUCT DATA SHEET

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| **Product Name:** | Guanidine thiocyanate, Ultrapure |
| **Product Number:** | G019 |
| **CAS Number:** | 593-84-0 |
| **Molecular Formula:** | $CN_3H_5$ •HSCN |
| **Molecular Weight:** | 118.16 |
| **Form:** | Powder |
| **Appearance:** | White crystalline powder |
| **Solubility:** | Water: Freely soluble |
| **Source:** | Synthetic |
| **Ammonia:** | Not more than 0.05% |
| **Absorbance:** | (6M) 280nm : ≤0.5 |
| **pH:** | (6M): 4.5-6.0 |
| **Melting Point:** | 115-122 °C |
| **Storage Conditions:** | 2-8 °C |
| **Description:** | Guanidine thiocyanate, Ultrapure, is a freely soluble chaotropic agent routinely used for DNA/RNA extraction protocols.<br><br>This product is considered a dangerous good. Quantities above 1 gram may be subject to additional shipping fees. Please contact Customer Service for details. |
| **Mechanism of Action:** | Extraction of cellular DNA and RNA releases DNases and RNases. Guanidine thiocyanate is used during cell lysis because of its ability to irreversibly inactivate degrading nucleases. In addition to its chaotropic properties, Guanidine thiocyanate has also shown to inactivate enveloped viruses and some non-enveloped viruses. |
| **Microbiology Applications** | Guanidine thiocyanate is routinely used for DNA/RNA extraction protocols to prevent damage by degredative enzymes. |

**References:**


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Chomzynski P and Sacchi N 2006) The single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction: Twenty-something years on. Nat. Protoc. 1(2):581-585

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