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Guanidinium thiocyanate

(GTC) 4x crystallized

Product Number: 1058

CAS Number: [593-84-0]

Storage Condition: Store in a dry place at room temperature

Description

Guanidinium thiocyanate is used as a general protein denaturant, being a chaotropic compound, although it is most commonly used as a nucleic acid protector in the extraction of DNA and RNA from cells. It has a very good solubility in water ($3 \text{ M in H}_2\text{O}$).

Structural formula of Guanidinium thiocyanate

$$\begin{array}{c}
\stackrel{\circ}{N}H_2\\
\stackrel{\parallel}{I}\\
\stackrel{\circ}{C}\stackrel{\circ}{N}H_2
\end{array}$$

Specification

Molecular weight 118.16 g/mol Molecular formula C₂H₆N₄S (Hill Notation) Density 1.29 g/cm³ at 20 °C Melting point 118 °C Solubility in water 1.420 g/ml at 20 °C Colourless crystals

Application

Guanidinium thiocyanate can be used to deactivate viruses. Guanidinium thiocyanate is also used to lyse cells and virus particles in RNA and DNA extractions, where its function, in addition to its lysing action, is to prevent activity of RNase enzymes and DNase enzymes by denaturing them. It is also used for protein solubilization.

Remarks

Quality

For Molecular Biology

Offering Sizes

Available in 250 g, 1 kg, and 2.5 kg per packaging.