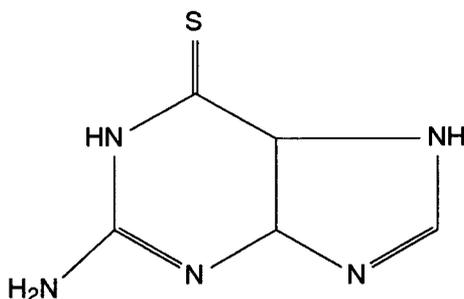


THIOGUANINE

NSC - 752



Chemical Name: 2-Amino-1,7-dihydro-6*H*-purine-6-thione

Other Names: 6-TG; 6-Thioguanine

CAS Registry Number: 154-42-7

Molecular Formula: C₅H₅N₅S

M.W.: 167.2

Approximate Solubility:

Readily soluble in dilute aqueous alkali. Insoluble in water, alcohol, or chloroform.

Stability:

Bulk:

The compound was stable in solid form at room temperature in the absence of moisture.

Solution:

Alkaline solutions slowly undergo decomposition. Alkaline solutions should not be heated above 37°C.

Ultraviolet Absorption:

(0.1N HCL)

λ_{\max}	ϵ
257 \pm 2 nm	8,000 - 8,400
347 \pm 2 nm	20,600 - 30,000

High Performance Liquid Chromatography:

Column:	μ Bondapak C ₁₈ , 300 x 4 mm i.d.
Mobile Phase:	3% MeOH in 0.1 MKH ₂ PO ₄ , pH=4.5
Flow Rate:	1.0 mL/min
Detection:	UV at 254 nm
Sample Preparation:	2.0 mg/mL (0.1 N NaOH)
Internal Standard:	Thymine
Retention Volume:	10.5 mL (NSC - 752) 15.0 mL (I.S.)

Toxicity Data:

Rat (ip): LD₅₀: 300 mg/kg
Journal of Reproduction and Fertility, 4,291 (1962)