

# THIOUREA

## PRODUCT IDENTIFICATION:

Chemical Name: Thiourea

Molecular Formula:  $\text{CH}_4\text{N}_2\text{S}$   
CAS No.: 62-56-6  
Dangerous Classification: 9

Molecular Weight: 76.12  
UN No.: 3077  
Packaging Group: III

## PHYSICAL AND CHEMICAL PROPERTIES:

Density	1.3±0.1	g/cm <sup>3</sup>
Boiling Point	186.8±23.0	°C at 760 mmHg
Melting Point	172	°C
Flash Point	66.8±22.6	°C
Stability	Stable. Incompatible with strong acids, strong bases, strong oxidizing agents, metallic salts, proteins, hydrocarbons. May react violently with acrolein.	
Water Solubility	13.6 g/100 mL (20 °C)	

## Specifications:

Items	Unit	Specifications	Typical Value
Appearance		White crystalline	White crystalline
Purity	% (wt%)	≥99	99.08
N	% (wt%)	≥35	36.4
S	% (wt%)	≥40	41.6
Loss on heating	% (wt%)	≤0.4	0.3
Water-insoluble	% (wt%)	≤0.02	0.02
Ash	% (wt%)	≤0.1	0.07
Melting point	°C	≥171	172
Thiocyanate	% (wt%)	≤0.02	0.01

### **Packaging:**

25KG/BAG, OUTER WOOVEN BAG, INNER PLATIC BAG.

### **Application:**

- 1, it is used as flotation agent in gold mining;
- 2, it is used as chemical fertilizer mainly in Eastern Asia;
- 3, it is used in the production of flame retardant resins, and vulcanization accelerators;
- 4, it is used as an auxiliary agent in diazo paper, light-sensitive photocopy paper and almost all other types of copy paper;
- 5, it is used to tone silver-gelatin photographic prints;
- 6, it is used in the Clifton-Phillips and Beaver bright and semi-bright electroplating processes;
- 7, it is used in a solution with tin(II) chloride as an electroless tin plating solution for copper printed circuit boards;
- 8, it is also used in phamaceutical industry.

### **Handling:**

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

### **Storage:**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from direct sunlight.

### **Personal protection:**

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

### **Contact info:**

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