

# Chemical Safety Data Sheet

## Section 1 IDENTIFICATION

**GHS Product identifier:** Thiourea.

**Other means of identification:** Thiocarbamide.

**Recommended use of the chemical and restrictions on use:** This material can be used as intermediate of pesticide and medicine. It can also be used as vulcanization accelerator for rubber, mining flotation agent, etc.

**Supplier's details:** /

**Emergency phone number:** /

## Section 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**

Acute toxicity, oral Category 4

Carcinogenicity Category 2

Reproductive toxicity Category 2

Hazardous to the aquatic environment, long-term hazard Category 2

**GHS Label elements, including precautionary statements:**

**Signal word:** Warning

**Hazard statement(s):** Harmful if swallowed. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Toxic to aquatic life with long lasting effects.

**Precautionary statement(s):**

Prevention:

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment. Response:

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If exposed or concerned: Get medical advice/attention. Collect spillage.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations. Other hazards which do not result in classification: /

## Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Thiourea	62-56-6	99.4%

## Section 4 FIRST AID MEASURES

**Description of necessary first aid measures**

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If ingestion:** Rinse mouth with water. Consult a physician.

**Most important symptoms/effects, acute and delayed:** /

**Indication of immediate medical attention and special treatment needed, if necessary:** /

#### Section 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Use foam, chemical powder or water spray.

**Special hazards arising from the chemical:** This material may decompose and burn at high temperature and fire and release toxic fumes.

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers. In case of fire in the surroundings, use appropriate extinguishing media.

#### Section 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

**Environmental precautions:** Do not enter into spillage area. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Contain spillage and collect in a clean container according to local regulations.

#### Section 7 HANDLING AND STORAGE

**Precautions for safe handling:** Wear protective gloves/eye protection/face protection/protective clothing. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking.

**Conditions for safe storage, including any incompatibilities:** Store in cool place. Protect from sunlight. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from flammable materials, acids, acrolein and oxidizers.

#### Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters:** /

**Appropriate engineering controls:** Local exhaust ventilation or a process enclosure ventilation system may be required.

##### Individual protection measures

**Eye/face protection:** Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

**Skin protection:** Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. rubber. Impervious clothing,

**Respiratory protection:** Selection of the class and type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

**Thermal hazards:** /

#### Section 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (physical state, colour etc)</b>	White solid granule.
<b>Odour</b>	/
<b>Odour Threshold</b>	/
<b>PH</b>	/
<b>Melting point/freezing point</b>	182°C.
<b>Initial boiling point and boiling range</b>	/
<b>Flash point</b>	/
<b>Evaporation rate</b>	/
<b>Flammability (solid, gas)</b>	/
<b>Upper/lower flammability or explosive limits</b>	/
<b>Vapour pressure</b>	/
<b>Vapour density</b>	/
<b>Relative density</b>	1.4.
<b>Solubility(ies)</b>	13.6g/100 mL(20°C).
<b>Partition coefficient: n-octanol/water</b>	-2.38/-0.95.
<b>Auto-ignition temperature</b>	/
<b>Decomposition temperature</b>	/
<b>Viscosity</b>	/

#### Section 10 STABILITY AND REACTIVITY

<b>Reactivity:</b> /
<b>Chemical stability:</b> The material is stable in normal temperature.
<b>Possibility of hazardous reactions:</b> Decomposes on heating. This produces toxic fumes of nitrogen oxides and sulfur oxides. Reacts violently with acrolein, strong acids and strong oxidants.
<b>Conditions to avoid:</b> Spark, high temperature and static electricity.
<b>Incompatible materials:</b> Oxidizers, acids, acrolein and flammable materials.
<b>Hazardous decomposition products:</b> Oxycarbides, nitrogen oxides and sulfur oxides.

#### Section 11 TOXICOLOGICAL INFORMATION

<b>Information on the likely routes of exposure:</b> Inhaled, swallowed, skin, eyes.
<b>Symptoms related to the physical, chemical and toxicological characteristics:</b> /
<b>Acute health effects:</b> Accidental ingestion of the material may be harmful and cause cough and throat irritation. Oral intake is toxic and may cause bellyache, nausea, vomit and other symptoms. This material may cause skin and eyes irritation.
<b>Chronic health effects:</b> Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the thyroid. This substance is possibly carcinogenic to humans.
<b>Numerical measures of toxicity(such as acute toxicity estimates):</b>



LD50(Oral, rat): 125 mg/kg

#### Section 12 ECOLOGICAL INFORMATION

**Toxicity:** Toxic to aquatic life with long lasting effects.

**Persistence and degradability:** Low.

**Bioaccumulative potential:** Low (BCF = 2).

**Mobility in soil:** Medium (KOC = 2.782).

**Other adverse effects:** /

#### Section 13 DISPOSAL CONSIDERATIONS

**Disposal methods:** Burial in a land-fill specifically licensed to accept chemical. Reuse of broken container is forbidden.

#### Section 14 TRANSPORT INFORMATION

**UN number:** 3077.

**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. **Transport hazard class(es):** 9.

**Packing group, if applicable:** III.

**Environmental hazards:** Marine pollutant.

**Special precautions for user:** /

#### Section 15 REGULATORY INFORMATION

**Regulations:** This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2012, GA 57-1993, GB/T 15098-2008, GBZ 2.1-2007, GBZ 2.2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011].

#### Section 16 OTHER INFORMATION

<b>References</b>	UN Recommendations on the Transport of Dangerous Goods Model Regulations LTN Globally Harmonized System of Classification and Labelling of Chemicals
<b>Form Date</b>	28-Jan-2016

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/<sup>n</sup> logo.