

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: THIOUREA

CAS Number: 62-56-6

1. IDENTIFICATION:

Product Code : 90576, 90260, 93322

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:**Hazard classification****Health hazards**


Acute toxicity, Oral : Category 4

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

Long-term (chronic) aquatic hazard : Category 2

Labels elements :

Hazard symbol : 

Signal word : Warning

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

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.

Response : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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- present and easy to do. Continue rinsing.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
Thiourea	62-56-6	NLT 98.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
Get medical attention if symptoms persist.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Most important symptoms/effects, acute and delayed** : The most important known symptoms and effects are described in the labelling (see section 2.)
- Indication of immediate medical attention and special treatment needed** : No data available.

5. FIRE FIGHTING MEASURES:

- General information** : No data available.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Water spray, foam, dry powder or carbon dioxide.
- Unsuitable extinguishing media** : Avoid water in straight hose stream; will scatter and spread fire.
- Specific hazards arising** : Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance

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Predicted No Effect Concentration (PNEC)	Consumer DNEL, long term	dermal	Long-term systemic effects	
	Consumer DNEL, long term	inhalation	Long-term systemic effects	1 mg/m3
	Consumer DNEL, long term	oral	Long-term systemic effects	
	Compartment			Value
	Fresh water			0,01 mg/l
	Fresh water sediment			0,072 mg/kg
	Sea water			0,001 mg/l
	Sea sediment			0,007 mg/kg
	Sewage treatment plant			0,38 mg/l
	Soil			2,725 mg/kg

Appropriate engineering controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator. Chemical Respirator with organic vapor cartridge.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and Protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance : White crystals or crystalline powder.

Odor : Odorless

Solubility : 137 g/l at 20 °C Miscible in water.

Formula : CH₄N₂S [NH₂CSNH₂]

Molecular Weight : 76.12 g/mol

Specific Gravity : 1.405 g/cm³ at 20°C

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pH	:	5,0 - 7 at 50 g/l at 20 °C
% Volatiles by volume @ 21C (70F)	:	No data available.
Boiling Point	:	No data available.
Melting Point	:	174.0 - 177.0°C
Flash Point	:	No data available.
Vapor Density (Air=1)	:	No data available.
Vapor Pressure (mm Hg)	:	No data available.
Evaporation Rate (BuAc=1)	:	No data available.

10. STABILITY AND REACTIVITY:

Reactivity	:	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical stability	:	Material is stable under ambient conditions.
Possibility of hazardous reactions	:	Risk of explosion with: chlorates Violent reactions possible with: acryl aldehyde Exothermic reaction with: Acrolein Strong oxidizing agents Strong acids and strong bases hydrogen peroxide with Nitric acid.
Conditions to avoid	:	No data available.
Incompatible materials	:	No data available.
Hazardous decomposition products	:	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:**Information on likely routes of exposure**

Ingestion	:	No data available.
Inhalation	:	No data available.
Skin contact	:	No data available.
Eye contact	:	No data available.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	LD 50 Rat - female - 2.000 - 2.500 mg/kg.
Dermal Product	:	LD 50 Rabbit - male and female - > 2.800 mg/kg.
Inhalation Product	:	LC50 Rat - male and female - 4 h - > 195 mg/l - dust/mist.

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Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: No data available.
Serious eye damage/eye irritation Product	: No data available.
Respiratory or skin sensitization Product	: Not a skin sensitizer.
Carcinogenicity Product	: Suspected of causing cancer.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	: No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens	: No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	: No carcinogenic components identified.
Germ cell mutagenicity	
In vitro Product	: No data available.
Reproductive toxicity Product	: Suspected of damaging the unborn child. Suspected of damaging fertility.
Specific target organ toxicity - single exposure Product	: No data available.
Specific target organ toxicity - repeated exposure Product	: No data available.
Aspiration hazard Product	: No data available.
Other effects	: No data available.

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Fish Product : LC50 - Pimephales promelas (fathead minnow) - > 600 mg/l.

Aquatic invertebrates Product : EC50 - Daphnia magna (Water flea) - 5,6 - 18,0 mg/l.

Chronic hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates Product : No data available.

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Toxicity to Aquatic Plants Product:	: No data available.
Persistence and degradability	
Biodegradation Product	: 0 % - Not readily biodegradable.
BOD/COD ratio Product	: No data available.
Bioaccumulative potential	
Bioconcentration factor (BCF) Product	: No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product	: No data available.
Mobility in soil	: No data available.
Other adverse effects	: No data available.

13. DISPOSAL CONSIDERATION:

Disposal instructions	: Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.
Contaminated packaging	: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION:

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 3077	Thiourea	9	III	Yes
IMDG	UN 3077	Thiourea	9	III	Yes
IATA	UN 3077	Thiourea	9	III	Yes

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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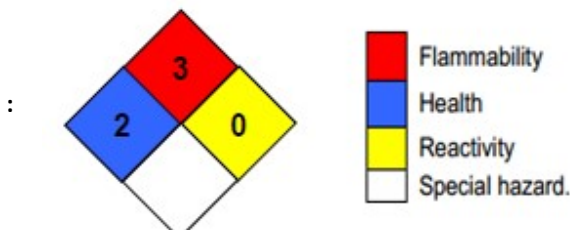
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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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