THIOCARBAMIDE

THC

CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Solid, crystal or powder	White, off-white
Isothiourea Pseudothiourea Sulourea Thiourea 2-Thiourea Urea, thio-	Sinks and mixes with water.	

KEEP PEOPLE AWAY. AVOID CONTACT WITH SOLID AND DUST.
Wear self-contained positive pressure breathing apparatus and full protective clothing.
Notify local health and pollution control agencies.
Protect water intakes.

Fire

POISONOUS GASES ARE PRODUCED WHEN HEATED TO DECOMPOSITION.
Wear self-contained positive pressure breathing apparatus and full protective clothing.
Extinguish small fires: dry chemical, CO_2, water spray or foam; large fires: water spray, fog or foam.
Move containers from fire area if you can do it without risk.

Exposure

CALL FOR MEDICAL AID.
DUST
Poisonous if inhaled.
May irritate skin.
Move to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.

SOLID
Poisonous if swallowed.
Irritating to skin.
IF IN EYES OR ON SKIN, flush with running water for at least 15 min.; hold eyelids open if necessary.
Wash skin with soap and water.
Remove and isolate contaminated clothing and shoes at the site.
IF SWALLOWED and victim is CONSCIOUS, induce vomiting.
IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.

Water Pollution

Harmful to aquatic life in very low concentrations.
May be dangerous if it inters water intakes.
Notify local health and wildlife officals.
Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Dilute and disperse
Do not burn

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: NH_2CSNH_2
2.3 IMO/UN Designation: 6.1/2877
2.4 DOT ID No.: Not listed.
2.5 CAS Registry No.: 62-56-6
2.6 NAERG Guide No.: Not listed
2.7 Standard Industrial Trade Classification: 51463

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Wear self-contained positive pressure breathing apparatus and full protective clothing.
3.2 Symptoms Following Exposure: Poisonous inhaled or swallowed. Irritating to skin; may cause allergic skin eruptions.
3.3 Treatment of Exposure: INHALATION: move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. SKIN OR EYES: flush with running water for at least 15 min.; hold eyelids open if neccessary. Wash skin with soap and water. Remove and isoalte contaminated clothing and shoes at the site. INGESTION: if conscious, induce vomiting.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Grade 3; LD_{50} = 125 mg/kg (rat); varies with different stains of rats; less toxic to some strains.
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Can cause cancer; mutagenic, teratogenic and tumorigenic effects.
3.10 Vapor (Gas) Irritant Characteristics: Currently not available
3.11 Liquid or Solid Characteristics: Currently not available
3.12 Odor Threshold: Currently not available
3.13 IDLH Value: Not listed.
3.14 OSHA PEL-TWA: Not listed.
3.15 OSHA PEL-STEL: Not listed.
3.16 OSHA PEL-Ceiling: Not listed.
3.17 EPA AEGL: Not listed

4. FIRE HAZARDS

4.1 Flash Point: Currently not available
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Small fires: dry chemical, CO_2, water spray or foam; large fires: water spray, fog or foam.
4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent
4.5 Special Hazards of Combustion Products: May contain highly toxic fumes of NOx and SOx.
4.6 Behavior in Fire: When heated to decompoition, it produces very toxic NOx and SOx fumes.
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Currently not available
4.9 Burning Rate: Currently not available
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: Not pertinent.
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent.
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction
5.2 Reactivity with Common Materials: Incompatible with metals.
5.3 Stability During Transport: Stable
5.4 Neutralizing Agents for Acids and Caustics: Neutralize with six normal hydrochloric acid.
5.5 Polymerization: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent

6. WATER POLLUTION

6.1 Aquatic Toxicity: 1.8 mg/l/time unknown/daphnia magna/LC_{50}/fresh water
>100 mg/l/time unknown/fathead minnow/LC_{50}/fresh water
6.2 Waterfowl Toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): 1.3%, 5 days
6.4 Food Chain Concentration Potential: Currently not available
6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

7.1 Grades of Purity: 99%
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: Not listed
7.4 Venting: Not listed
7.5 IMO Pollution Category: Currently not available
7.6 Ship Type: Currently not available
7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed
8.2 49 CFR Class: Not pertinent
8.3 49 CFR Package Group: Not listed.
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	1
Flammability (Red).....	0
Instability (Yellow).....	0

8.6 EPA Reportable Quantity: Not listed.
8.7 EPA Pollution Category: Not listed.
8.8 RCRA Waste Number: Not listed
8.9 EPA FWPCA List: Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Solid
9.2 Molecular Weight: 76.12
9.3 Boiling Point at 1 atm: Decomposes
9.4 Freezing Point: 347-351°F. = 175-177°C. = 448-450°K.
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 1.405 at 20°C.
9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: 2.6 (est.)
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
9.12 Latent Heat of Vaporization: Not pertinent
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: -126.0 Btu/lb = -70.02 cal/g = -2.932 X 10^5 J/kg
9.16 Heat of Polymerization: Not pertinent
9.17 Heat of Fusion: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
68	87.700		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
55	9.200		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE