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Material Safety Data Sheet Thioacetamide MSDS

Section 1: Chemical Product and Company Identification

Product Name: Thioacetamide

Catalog Codes: SLT1831, SLT3124

CAS#: 62-55-5

RTECS: AC8925000

TSCA: TSCA 8(b) inventory: Thioacetamide

CI#: Not available.

Synonym: Ethanethioamide; Acetothioamide; Thiacetamide; Thioacetimidic acid

Chemical Name: Acetamide, thio-

Chemical Formula: C₂H₅N-S

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Thioacetamide	62-55-5	100

Toxicological Data on Ingredients: Thioacetamide: ORAL (LD50): Acute: 301 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC. Classified 2 (Some evidence.) by NTP.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to liver.

Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage**Precautions:**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids, alkalis.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 8°C (46.4°F). Refrigerate.

Section 8: Exposure Controls/Personal Protection**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor: Slight odor of mercaptans. Sulfurous.

Taste: Not available.

Molecular Weight: 75.13 g/mole

Color: White to yellowish.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 113°C (235.4°F) - 114 C.

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in water; $\log(\text{oil/water}) = -0.3$

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility:

Soluble in cold water.

Miscible in petroleum ether.

Sparingly soluble in ether.

Solubility in ethanol: 26.4 g/100 g.

Solubility in water: 16300 mg/l @ 25 deg. C.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 301 mg/kg [Rat].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC. Classified as anticipated carcinogen by NTP.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: liver.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May affect genetic material (mutagenic).

May cause cancer.

May cause adverse reproductive effects and birth defects (teratogenic).

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: Causes skin irritation. It may be absorbed through the skin and cause symptoms similar to that of ingestion

Eyes: Causes eye irritation.

Inhalation: May cause respiratory tract nose, throat, lungs) irritation causing coughing.

Ingestion: Harmful if swallowed. It may cause diarrhea and painful or difficult urination. It may affect the liver and cause liver damage. Contact with stomach acids can liberate toxic hydrogen sulfide gas. Hydrogen Sulfide can cause diarrhea, nausea, excessive salivation, and can affect the central nervous system producing headache, weakness dizziness, excitement, staggering gait.

Chronic Potential Health Effects:

Ingestion: Prolonged or repeated ingestion may affect the liver (hepatitis, cirrhosis, hepatocellular necrosis), urinary system, blood (changes in serum composition), metabolism (loss appetite, weight loss), endocrine system (thymus, spleen).

Skin: Prolonged or repeated skin contact can result in moderate to heavy skin irritation.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute:

Thioacetamide

California prop. 65 (no significant risk level): Thioacetamide: 0.0001 mg/day (value)

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Thioacetamide

Connecticut hazardous material survey.: Thioacetamide

Illinois toxic substances disclosure to employee act: Thioacetamide

Illinois chemical safety act: Thioacetamide

New York release reporting list: Thioacetamide

Pennsylvania RTK: Thioacetamide

Minnesota: Thioacetamide
Massachusetts RTK: Thioacetamide
Massachusetts spill list: Thioacetamide
New Jersey: Thioacetamide
New Jersey spill list: Thioacetamide
Louisiana spill reporting: Thioacetamide
TSCA 8(b) inventory: Thioacetamide
SARA 313 toxic chemical notification and release reporting: Thioacetamide
CERCLA: Hazardous substances.: Thioacetamide: 10 lbs. (4.536 kg)

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):

The classification of this product has not been validated yet by the Service du repertoire toxicologique. However, the WHMIS can be expected to be CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):

R22- Harmful if swallowed.
R36/38- Irritating to eyes and skin.
R45- May cause cancer.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53- Avoid exposure - obtain special instructions before use.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.
Lab coat.
Dust respirator. Be sure to use an approved/certified respirator or

equivalent. Wear appropriate respirator when ventilation is inadequate.
Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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