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|---------------------|---|
| Health | 3 |
| Fire | 3 |
| Reactivity | 0 |
| Personal Protection | H |

Material Safety Data Sheet

Allylamine MSDS

Section 1: Chemical Product and Company Identification

Product Name: Allylamine

Catalog Codes: SLA4546

CAS#: 107-11-9

RTECS: BA5425000

TSCA: TSCA 8(b) inventory: Allylamine

CI#: Not available.

Synonym: 2-Propen-1-amine; 2-Propenamine; 3-Aminopropene; 3-Aminopropylene; Monoallylamine

Chemical Name: Allylamine

Chemical Formula: C₃H₇N

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 |
|------------|----------|-------------|
| Allylamine | 107-11-9 | 100 |

Toxicological Data on Ingredients: Allylamine: ORAL (LD50): Acute: 102 mg/kg [Rat]. 57 mg/kg [Mouse]. DERMAL (LD50): Acute: 35 mg/kg [Rabbit]. VAPOR (LC50): Acute: 177 ppm 8 hours [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation. Hazardous in case of ingestion. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver, heart, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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 immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

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 immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 373.89°C (705°F)

Flash Points: CLOSED CUP: -29°C (-20.2°F).

Flammable Limits: LOWER: 2.2% UPPER: 22%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Highly flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

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:

Flammable liquid, soluble or dispersed in water. **SMALL FIRE:** Use DRY chemical powder. **LARGE FIRE:** Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Flammable liquid. Poisonous liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

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 gas/fumes/ vapor/spray. 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.

Storage:

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

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

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor 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: Liquid.

Odor: Ammoniacal.

Taste: Burning.

Molecular Weight: 57.1 g/mole

Color: Colorless to light yellow

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

Boiling Point: 55°C (131°F) 58 C

Melting Point: -88°C (-126.4°F)

Critical Temperature: Not available.

Specific Gravity: 0.76 (Water = 1)

Vapor Pressure: 32.3 kPa (@ 20°C)

Vapor Density: 2 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether.

Solubility:

Soluble in cold water, diethyl ether. Miscible with chloromform, alcohol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Not available.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 57 mg/kg [Mouse]. Acute dermal toxicity (LD50): 35 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 177 8 hours [Rat].

Chronic Effects on Humans: May cause damage to the following organs: kidneys, liver, heart, central nervous system (CNS).

Other Toxic Effects on Humans:

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

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: It is a strong skin irritant. Causes skin irritation and possible skin burns. It may be fatal if absorbed through skin. If absorbed through skin it can affect respiration and cause chronic pulmonary edema. Eyes: It is a strong eye irritant. Causes eye irritation with lacrymation, and possible eye burns. It may cause conjunctivitis. Inhalation: It may be fatal if inhaled. It causes respiratory tract irritation with severe tearing, coughing and/or shortness of breath (dyspnea). Higher exposures can cause pulmonary edema with severe shortness of breath. Inhalation of vapors may cause nausea, conjunctivitis of the eyes, corneal edema, dizziness or suffocation. CNS excitement, necrosis, seizures, loss of consciousness, coma, death can also occur from acute exposure. The vapors are extremely obnoxious and act as a good warning sign to prevent voluntary exposure. Ingestion: Harmful if swallowed. Causes extreme gastrointestinal tract irritation with possible burns to the esophagus. May affect behavior and respiration (chronic pulmonary edema) Chronic Potential Health Effects: Inhalation: Prolonged exposure may produce irregular respiration and cyanosis. Chronic exposure may also affect the heart. Chronic exposures have induced lesions in the heart and its blood vessels, and myocardial fibrosis with cardiac hypertrophy in experimental animals. Chronic inhalation may also cause hepatotoxicity and nephrotoxicity, and affect the nervous system, and metabolism. Ingestion: Chronic or prolonged ingestion may affect the blood (pigmented or nucleated red blood cells, changes in white blood cell count), and metabolism.

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: CLASS 6.1: Poisonous material.

Identification: : Allylamine UNNA: 2334 PG: I

Special Provisions for Transport: Poison Inhalation Hazard Zone B

Section 15: Other Regulatory Information

Federal and State Regulations:

Illinois chemical safety act: Allylamine New York release reporting list: Allylamine Rhode Island RTK hazardous substances: Allylamine Pennsylvania RTK: Allylamine Massachusetts RTK: Allylamine Massachusetts spill list: Allylamine New Jersey: Allylamine New Jersey spill list: Allylamine New Jersey toxic catastrophe prevention act: Allylamine Louisiana RTK reporting list: Allylamine TSCA 8(b) inventory: Allylamine SARA 302/304 emergency planning and notification: Allylamine SARA 313 toxic chemical notification and release reporting: Allylamine CERCLA: Hazardous substances.: Allylamine

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 WHMIS classification of this product has not yet been validated by the Service du repertoire toxicologique, but it might be classified as CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):

R11- Highly flammable. R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S9- Keep container in a well-ventilated place. S16- Keep away from sources of ignition - No smoking. S24/25- Avoid contact with skin and eyes. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 3

Reactivity: 0

Personal Protection: h

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

Health: 4

Flammability: 3

Reactivity: 1

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Vapor 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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