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## Material Safety Data Sheet Isopropylamine MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Isopropylamine

**Catalog Codes:** SLI1618

**CAS#:** 75-31-0

**RTECS:** NT8400000

**TSCA:** TSCA 8(b) inventory: Isopropylamine

**CI#:** Not available.

**Synonym:** 2-Aminopropane; Monoisopropylamine; iso-Propylamine; 1-Methylethylamine; 2-propanimine; 2-Propylamine

**Chemical Name:** Isopropylamine

**Chemical Formula:** C3-H9-N

#### 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](http://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
Isopropylamine	75-31-0	100

**Toxicological Data on Ingredients:** Isopropylamine: ORAL (LD50): Acute: 111 mg/kg [Rat (RTECS, National Technical Information Service)]. 2200 mg/kg [Mouse]. 820 mg/kg [Rat (LOLI, Merck Index)]. DERMAL (LD50): Acute: 380 mg/kg [Rabbit]. VAPOR (LC50): Acute: 4000 ppm 4 hours [Rat].

### Section 3: Hazards Identification

#### Potential Acute Health Effects:

Very hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant, corrosive), of ingestion, . Hazardous in case of inhalation (lung irritant). Slightly hazardous in case of skin contact (sensitizer, permeator). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. 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 upper respiratory tract, skin, eyes, central

nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. 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.

### **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:** 402°C (755.6°F)

**Flash Points:** CLOSED CUP: -35°C (-31°F). OPEN CUP: -15°C (5°F).

**Flammable Limits:** LOWER: 2% UPPER: 10.4%

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>).

**Fire Hazards in Presence of Various Substances:** Extremely flammable in presence of open flames and sparks, of heat.

### **Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Explosive in presence of open flames and sparks, of heat.

### **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. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

### **Special Remarks on Fire Hazards:**

May be ignited by heat, sparks or flames. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks)

**Special Remarks on Explosion Hazards:**

Reacts with perchloryl fluoride to form an explosive mixture. Vapor explosion hazard indoors, outdoors or in sewers. Run off to sewers may create a fire or explosion hazard. Containers may explode when heated.

**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. Corrosive 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 curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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

Keep locked up.. Keep container dry. 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. Never add water to this product. 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.

**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). Do not store above 23°C (73.4°F).

**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:**

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**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:**

TWA: 5 STEL: 10 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 12 STEL: 24 (mg/m3) [Australia] TWA: 12 STEL: 24 (mg/m3) from ACGIH (TLV) [United States] [1999] TWA: 12 STEL: 24 (mg/m3) from OSHA (PEL) [United States] TWA: 12 STEL: 24 (mg/m3) [Canada] Consult local authorities for acceptable exposure limits.

**Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Liquid.

**Odor:** Ammonia-like

**Taste:** Not available.

**Molecular Weight:** 59.1 g/mole

**Color:** Colorless.

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

**Boiling Point:** 33.5°C (92.3°F)

**Melting Point:** -101°C (-149.8°F)

**Critical Temperature:** 202°C (395.6°F)

**Specific Gravity:** 0.694 (Water = 1)

**Vapor Pressure:** 61.3 kPa (@ 20°C)

**Vapor Density:** 2.04 (Air = 1)

**Volatility:** Not available.

**Odor Threshold:** Not available.

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

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, acetone.

**Solubility:**

Easily soluble in acetone. Soluble in cold water.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** incompatible materials, ignition sources (sparks), heat (high temperatures), mechanical shock

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

**Corrosivity:** Corrosive in presence of aluminum, of zinc, of copper.

**Special Remarks on Reactivity:**

Incompatible with aldehydes, ketones, epoxides, 1,3-epoxypropane, perchloryl fluoride, acid chlorides, acid anhydrides, mineral acids, organic acids, sodium hypochlorite, calcium hypochlorite, copper, aluminum, zinc, galvanized surfaces, peroxides, halogenated agents. In absence of diluents, contact with most aliphatic or non-aromatic heterocyclic amines often leads to uncontrolled oxidation or explosions.

**Special Remarks on Corrosivity:** Corrosive to copper, aluminum, zinc, galvanized surfaces

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact. Inhalation.

**Toxicity to Animals:**

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 111 mg/kg [Rat (RTECS, National Technical Information Service)]. Acute dermal toxicity (LD50): 380 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 4000 4 hours [Rat].

**Chronic Effects on Humans:** May cause damage to the following organs: upper respiratory tract, skin, eyes, central nervous system (CNS).

**Other Toxic Effects on Humans:**

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

**Special Remarks on Toxicity to Animals:** Harmful to aquatic life in very low concentrations.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Harmful if absorbed through skin. May cause skin sensitization, an allergic reaction, which becomes evident upon reexposure to this material. Causes severe skin irritation and burns. Eye: May cause 'blue haze' or 'halo' vision. Causes eye irritation and burns. May cause lacrimation, conjunctivitis, and corneal edema when vapor is absorbed into the tissue of the eye. Direct contact with liquid may cause blindness or permanent eye damage. Ingestion: May be harmful if swallowed. Causes gastrointestinal tract burns. May affect metabolism. May cause central nervous system depression, headache, dizziness, drowsiness and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Inhalation: Inhalation of high concentrations may cause central nervous system effects (headache, dizziness, unconsciousness and coma), narcotic effects, delayed pulmonary edema. Causes respiratory tract irritation with possible burns. Chronic Potential Health Effects: Prolonged or repeated skin contact may cause dermatitis.

## Section 12: Ecological Information

**Ecotoxicity:**

Ecotoxicity in water (EC50): 91.5 mg/l 48 hours [Daphnia]. Harmful to aquatic life in very low concentrations. Waste from this product may present long-term environmental hazards.

**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:**

## Section 14: Transport Information

**DOT Classification:**

CLASS 3: Flammable liquid. Class 8: Corrosive material

**Identification:** : Isopropylamine UNNA: 1221 PG: I

**Special Provisions for Transport:** Not available.

## Section 15: Other Regulatory Information

**Federal and State Regulations:**

Rhode Island RTK hazardous substances: Isopropylamine Pennsylvania RTK: Isopropylamine Minnesota: Isopropylamine Massachusetts RTK: Isopropylamine New Jersey: Isopropylamine California Director's List of Hazardous Substances (8 CCR 339): Isopropylamine Tennessee: Isopropylamine TSCA 8(b) inventory: Isopropylamine

**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):**

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS E: Corrosive liquid.

**DSCL (EEC):**

R12- Extremely flammable. R36/37/38- Irritating to eyes, respiratory system and skin. S16- Keep away from sources of ignition - No smoking. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29- Do not empty into drains.

**HMIS (U.S.A.):**

**Health Hazard:** 3

**Fire Hazard:** 4

**Reactivity:** 0

**Personal Protection:**

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

**Health:** 3

**Flammability:** 4

**Reactivity:** 3

**Specific hazard:**

**Protective Equipment:**

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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