



Material Safety Data Sheet

Isoprene MSDS

Section 1: Chemical Product

Product Name: Isoprene

Catalog Codes: SLI1204

CAS#: 7879-5

RTECS: NT4037000

TSCA: TSCA 8(b) inventory: Isoprene

CI#: Not available.

Synonym:

Chemical Formula: C₅H₈

Section 2: Composition and Information on Ingredients

Composition:

Name CAS # % by Weight

Isoprene 7879-5 100

Toxicological Data on Ingredients: Isoprene: ORAL (LD50): Acute: 5240 mg/kg [Rat]. DERMAL (LD50): Acute: 8900 mg/kg [Rabbit]. VAPOR (LC50): Acute: 35278 ppm 4 hour(s) [Mouse]. 64606.6 ppm 4 hour(s) [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

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

inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive, permeator).

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: Classified + (PROVEN) by OSHA.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes,

keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin.

Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:

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

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate 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. Seek medical attention.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not

breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 220 °C (428 °F)

Flash Points: CLOSED CUP: -54 °C (-65.2 °F).

Flammable Limits: LOWER: 1.5% UPPER: 9.7%

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

Fire Hazards in Presence of Various Substances: Flammable in presence of open flames and sparks.

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. Cool containing vessels with water jet in order to prevent

pressure build-up, autoignition or explosion.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:

Flammable 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 touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources.

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/ vapour/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

Storage:

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep

away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place.

Ground all

equipment containing material. A refrigerated room would be preferable for materials with a flash point lower than

37.8°C (100°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:

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: Not available.

Taste: Not available.

Molecular Weight: 68.12 g/mole

Color: Clear Colorless.

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

Boiling Point: 34.07°C (93.3°F)

Melting Point: -146°C (-230.8°F)

Critical Temperature: Not available.

Specific Gravity: 0.6861 (Water = 1)

Vapor Pressure: 550 mm of Hg (@ 20°C)

Vapor Density: 2.35 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: Not available.
Solubility: Very slightly soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Yes.

Section 11: Toxicological Information

Routes of Entry: 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): 5240 mg/kg [Rat].
Acute dermal toxicity (LD50): 8900 mg/kg [Rabbit].
Acute toxicity of the vapor (LC50): 35278 ppm 4 hour(s) [Mouse].
Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified + (PROVEN) by OSHA.
Other Toxic Effects on Humans:
Very hazardous in case of skin contact (irritant).
Hazardous in case of ingestion, of inhalation (lung irritant).
Slightly hazardous in case of skin contact (corrosive, permeator).
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

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 more toxic.
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.
Identification: : Isoprene, Inhibited : UN1218 PG: I
Special Provisions for Transport: Not available.

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: Isoprene

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cause cancer which would require a warning under the statute: Isoprene

Connecticut carcinogen reporting list.: Isoprene

Rhode Island RTK hazardous substances: Isoprene

Pennsylvania RTK: Isoprene

Florida: Isoprene

Minnesota: Isoprene

Massachusetts RTK: Isoprene

New Jersey: Isoprene

TSCA 8(b) inventory: Isoprene

CERCLA: Hazardous substances.: Isoprene: 100 lbs. (45.36 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):

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):

R12- Extremely flammable.

R37/38- Irritating to respiratory system and skin.

R41- Risk of serious damage to eyes.

R45- May cause cancer.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 4

Reactivity: 0

Personal Protection: h

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

Health: 2

Flammability: 4

Reactivity: 2

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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