

Material Safety Data Sheet (MSDS) - **Isoprene**

1. Chemical Product and Company Identification

Product Name : Isoprene
Catalog Codes : SLI1204
CAS# : 7879-5
RTECS : NT4037000
TSCA : TSCA 8(b) inventory: Isoprene
CI# : Not available.
Synonym :
Chemical Formula : C₅H₈

COMPANY IDENTIFICATION

Supplier: **Pure Chemicals Group.**
CHENNAI, TAMILNADU, INDIA

24 Hour Health Emergency (91) 8939878447
(91) 9444038694

Transportation Emergency Phone (91) 8939768680

Company Name	Place	EMERGENCY TELEPHONE NUMBER
Pure Chemicals Group.	India	Day Emergency - 044-26161803-26161809

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].

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

13. Disposal Considerations

Waste Disposal:

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

14. Transport Information

DOT Classification : Class 3: Flammable liquid.

Identification : Isoprene, Inhibited : UN1218 PG: I

Special Provisions for Transport: Not available.

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 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: 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.

16. Other Information

Disclaimer:

The information and recommendations contained herein are, to the best of **Pure Chemicals Group** knowledge and belief, accurate and reliable as of the date issued. You can contact **Pure Chemicals Group** to ensure that this document is the most current available from **Pure Chemicals Group**. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.