

MATERIAL SAFETY DATA SHEET

Product Name: Isooctane

CAS No.: 540-84-1

Version: 0

1. Identification

Product Code : 90027, 90176, 90435
Company Name : Advent Chembio Private Limited
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
ISOOCTANE	540-84-1	99-100%

3. Hazards Identification**Hazard classification****Physical hazards**

Flammable liquids : Category 2

Health hazards

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

Specific target organ toxicity - single exposure : Category 3

Aspiration hazard : Category 1

Environmental hazards

Acute hazards to the aquatic environment : Category 1

Chronic hazards to the aquatic environment : Category 1

Labels elements**Hazard symbol****Signal word** : Danger**Hazard statement** : Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
Very toxic to aquatic life with long lasting effects.

MATERIAL SAFETY DATA SHEET**Product Name:** Isooctane**CAS No.:** 540-84-1**Version:** 0**Precautionary statement**

- Prevention** : Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Avoid release to the environment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area.
- Response** : IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.
- Other hazards which do not result in GHS classification** : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
- Most important symptoms/effects, acute and delayed** : Irritating to eyes, respiratory system and skin.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

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5. Fire fighting measures

General fire hazards : Highly flammable liquid and vapour. In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical : Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode.

Special protective equipment and precautions for firefighters

Special fire fighting procedures : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use only non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved .

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

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7. Handling and Storage

- Precautions for safe handling** : DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/face protection. Use only with adequate ventilation. Wash hands thoroughly after handling. Avoid contact with eyes. Avoid contact with skin. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse.
- Conditions for safe storage, including any incompatibilities** : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

8. Exposure Controls Personal Protection

Control parameters Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
PENTANE, 2,2,4-TRIMETHYL-	TWA	300 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	350 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	Ceil_Time	1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	2,350 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1,450 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

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Eye/face protection	:	Wear safety glasses with side shields (or goggles).
Hand protection	:	Chemical resistant gloves.
Other	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation use suitable respirator.
Hygiene measures	:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. Physical and Chemical Properties

Appearance	:	Colorless Mobile liquid .
Odor	:	Odorless
pH	:	No data available.
Melting point/freezing point	:	-107.5 °C
Initial boiling point and boiling range	:	99 °C
Flash Point	:	-12 °C
Vapor pressure	:	6.6 kPa (25 °C)
Vapor density	:	3.93 AIR=1
Relative density	:	0.69 (20 °C)
Solubility in water	:	0.0007 g/l (25 °C)
Solubility (other)	:	No data available.
Formula	:	C ₈ H ₁₈
Molecular Weight	:	114.22 g/mol

10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Heat, sparks, flames. Contact with incompatible materials.
Incompatible materials	:	Strong oxidizing agents. Flammable/combustible material. Acids. Bases. Reducing agents.
Hazardous decomposition products	:	Fire or excessive heat may produce hazardous decomposition products. Oxides of Carbon .

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	May be fatal if swallowed and enters airways.
Inhalation	:	May be harmful if inhaled.
Skin contact	:	Causes skin irritation.
Eye contact	:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

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Oral Product	: No data available.
Dermal Product	: No data available.
Inhalation Product	: No data available.
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: Causes skin irritation.
Serious eye damage/eye irritation Product	: Causes serious eye irritation.
Respiratory or skin sensitization Product	: Not a skin sensitizer.
Carcinogenicity Product	: This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	: No carcinogenic components identified
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	: No carcinogenic components identified
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	: No carcinogenic components identified.
Germ cell mutagenicity In vitro Product	: No mutagenic components identified
In vivo Product	: No mutagenic components identified
Reproductive toxicity Product	: No components toxic to reproduction
Specific target organ toxicity - single exposure Product	: May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure Product	: No data available
Aspiration hazard Product	: May be fatal if swallowed and enters airways.
Other effects	: None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :****Fish Product** : No data available.**Aquatic invertebrates Product** : No data available.**Chronic hazards to the aquatic environment :****Fish Product** : No data available.**Aquatic invertebrates Product** : No data available.**Toxicity to Aquatic Plants Product:** : No data available.**Persistence and degradability****Biodegradation Product** : The product is not expected to be biodegradable.**BOD/COD ratio Product** : No data available.**Bioaccumulative potential****Bioconcentration factor (BCF)** : No data available on bioaccumulation.

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- Partition coefficient n-octanol / water (log Kow) Product** : No data available.
Mobility in soil : No data available.
Other adverse effects : Very toxic to aquatic life with long lasting effects.

13. Disposal consideration

- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1262	Octanes	3	II	No
IMDG	UN 1262	Octanes	3	II	No
IATA	UN 1262	Octanes	3	II	No

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

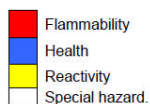
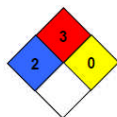
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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16. Other Information**NFPA Hazard ID**

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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