

Section 1. Product and Company Identification

Product Name 1-Octene
CAS Number 111-66-0

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
☎ (914) 654-6800 ☎ (914) 654-6899
🌐 parchem.com ✉ info@parchem.com

EMERGENCY RESPONSE NUMBER
CHEMTEL
Toll Free US & Canada: 1 (800) 255-3924
All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

FLAMMABLE LIQUIDS: Category 2
ASPIRATION HAZARD: Category 1
AQUATIC HAZARD (ACUTE): Category 1
AQUATIC HAZARD (LONG-TERM): Category 1

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard statement: Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: Do not ingest. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Avoid release to the environment.



Response: Collect spillage. Collect spillage.

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements: Avoid contact with skin and clothing. Wash thoroughly after handling.

Hazards not otherwise classified: Repeated exposure may cause skin dryness or cracking.

Section 3. Composition / Information on Ingredients

Common Name 1-Octene
Synonym(s) Oct-1-ene
CAS Number 111-66-0

COMPONENT	CAS NUMBER	CONCENTRATION
1-Octene	111-66-0	> 98%

Section 4. First Aid Measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.



Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed
Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion: May be fatal if swallowed and enters airways. Do not ingest. If swallowed then seek immediate medical assistance.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following: irritation, dryness, cracking

Ingestion: Adverse symptoms may include the following: nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use water jet.

Specific hazards arising from the chemical: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide

Special protective actions for firefighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk



or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is



inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosionproof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store under nitrogen.

Section 8. Exposure Controls / Personal Protection

Control parameters

Occupational exposure limits

AIHA WEEL (United States, 5/2010): TWA: 75 ppm 8 hours.

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates



a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and Chemical Properties

Physical state: Liquid

Color: Clear. Colorless

Odor: Not available

Odor threshold: Not available

pH: Not available

Melting point: -101.67°C (-151°F)

Boiling point: 121 to 123°C (249.8 to 253.4°F)

Flash point: Closed cup: 10°C (50°F)

Evaporation rate: Not available.

Flammability (solid, gas): Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.



Lower and upper explosive (flammable) limits

Lower: 0.8%

Upper: 6.7%

Vapor pressure: 2 kPa (15.001 mm Hg) [room temperature]

Vapor density: 3.9 [Air = 1]

Relative density: 0.715

Solubility: Very slightly soluble in the following materials: cold water.

Solubility in water: Not available.

Partition coefficient n-octanol/water: Not available.

Auto-ignition temperature: 256.11°C (493°F)

Decomposition temperature: Not available.

Viscosity: Kinematic (room temperature): <7 mm²/s (<7 cSt) [at 20°C]. Kinematic (40°C (104°F)): 0.55 mm²/s (0.55 cSt) [at 20°C]

Section 10. Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Under normal

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

LC50 Inhalation Vapor: Rat >8050 ppm 4 hours

LD50 Oral: Rat >3575 mg/kg

Mutagenicity

Conclusion/Summary: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

Carcinogenicity

Conclusion/Summary: No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European

Commission (EC).

Reproductive toxicity

Conclusion/Summary: No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Aspiration hazard: ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion: May be fatal if swallowed and enters airways. Do not ingest. If swallowed then seek immediate medical assistance.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following: irritation, dryness, cracking

Ingestion: Adverse symptoms may include the following: nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Section 12. Ecological Information

Toxicity

EC50 1 to 10 mg/l: Aquatic plants 96 hours

EC50 1 mg/l: Daphnia 48 hours

LC50 <1 mg/l: Fish 96 hours

Conclusion/Summary: Not available.

Persistence and degradability: Not available.



Conclusion/Summary: Not available.

Biodegradability: Readily

Bioaccumulative potential

LogPow: 3.5 to 4.6

BCF: 2.6 to 3.1

Potential: Low

Mobility in soil

Soil/water partition coefficient (KOC): 3.7

Mobility: This product is not likely to volatilize rapidly into the air because of its low vapor pressure.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT Classification

UN number: UN3295

UN proper shipping name: Hydrocarbons, liquid, n.o.s.. Marine pollutant (oct-1-ene)

Transport hazard class(es): 3

Packing group: II

Environmental Hazards: Yes

Additional Information: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤ 5 L or ≤ 5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

Limited quantity: Yes.

Packaging instruction

Passenger aircraft

Quantity limitation: 5 L

Cargo aircraft

Quantity limitation: 60 L

Special provisions: 144, IB2, T7, TP1, TP8, TP28

IMDG

UN number: UN3295

UN proper shipping name: HYDROCARBONS, LIQUID, N.O.S.. Marine pollutant (oct-1-ene)

Transport hazard class(es): 3

Packing group: II

Environmental Hazards: Yes



Additional information: The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

Emergency schedules (EmS): F-E, S-D

IATA

UN number: UN3295

UN proper shipping name: Hydrocarbons, liquid, n.o.s.

Transport hazard class(es): 3

Packing group: II

Environmental Hazards: No

Additional information: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Passenger and Cargo Aircraft

Quantity limitation: 5 L

Packaging instructions: 353

Cargo Aircraft Only Quantity

limitation: 60 L

Packaging instructions: 364

Limited Quantities

Passenger Aircraft

Quantity limitation: 1 L

Packaging instructions: Y341

Special provisions: A3, A224

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Proper shipping name: Octene (all Isomers)

Ship type: 2

Pollution category: Y

Section 15. Regulatory Information

U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed



SARA 302/304

Composition/information on ingredients: No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312

Classification: Fire hazard. Immediate (acute) health hazard

Composition/information on ingredients

Percent: > 98%

Fire hazard: Yes.

Sudden release of pressure: No.

Reactive: No.

Immediate (acute) health hazard: No.

Delayed (chronic) health hazard: No.

SARA 313: Not applicable.

State regulations

Massachusetts: The following components are listed: 1-OCTENE

New York: None of the components are listed.

New Jersey: None of the components are listed.

Pennsylvania: The following components are listed: 1-OCTENE

California Prop. 65: None of the components are listed.

National inventory

China: All components are listed or exempted.

Europe: All components are listed or exempted.

Japan: Japan inventory (ENCS): All components are listed or exempted.

Japan inventory (ISHL): All components are listed or exempted.

Republic of Korea: All components are listed or exempted.

Malaysia: All components are listed or exempted.

New Zealand: All components are listed or exempted.

Philippines: All components are listed or exempted.

Taiwan: All components are listed or exempted.

HMIS

Health: 0

Flammability: 3

Physical Hazards: 0



Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 1/19/2018

