

Section 1. Product and Company Identification

Product Name Isooctyl Acrylate
CAS Number 29590-42-9

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

Flammable Liquid, Category 4, H227
Acute Aquatic Toxicity, Category 1, H400
Chronic Aquatic Toxicity, Category 1, H410

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

H227: Combustible liquid.
H410: Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements: Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.

Precautionary Statements

Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/ eye protection/ face protection.

Response

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.



P391: Collect spillage.

Storage

P403 + P235: Store in a well-ventilated place. Keep cool.

Disposal

P501: Dispose of contents/ container to an approved waste disposal plant.

Supplemental Information

Potential Health Effects: Effects due to processing releases: Irritating to eyes, respiratory system and skin. Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

Other: This product may release fume and/or vapor of variable composition depending on processing time and temperature. Possible cross sensitization with other acrylates and methacrylates

HMIS Rating

Health: 2

Flammability: 2

Reactivity: 2

Section 3. Composition / Information on Ingredients

Common Name Isooctyl Acrylate
Synonym(s) 2-Propenoic acid, isooctyl ester
Formula $C_{11}H_{20}O_2$
CAS Number 29590-42-9

COMPONENT	CAS NUMBER	CONCENTRATION
Isooctyl Acrylate	29590-42-9	< 100% wt.

Section 4. First Aid Measures

Inhalation: If inhaled, remove victim to fresh air.

Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes: Immediately flush eye(s) with plenty of water.

Ingestion: If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

Section 5. Firefighting Measures

Extinguishing Media (Suitable): Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Extinguishing Media (Unsuitable): Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

Protective Equipment: Fire fighters and others who may be exposed to products of combustion



should wear full firefighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further Firefighting Advice: Fight fire from a protected location. Cool closed containers exposed to fire with water spray. Closed containers of this material may explode when subjected to heat from surrounding fire. After a fire, wait until the material has cooled to room temperature before initiating clean-up activities. Do not allow run-off from firefighting to enter drains or water courses. Firefighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards: When burned, the following hazardous products of combustion can occur: Carbon oxides; Hazardous organic compounds; Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Section 6. Accidental Release Measures

In case of Spill or Leak: Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Use inert, non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay directly on the spilled peroxide, then wet down (dampen) the mixture with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Section 7. Handling and Storage

Handling

General Information on Handling: Avoid breathing vapor or mist. Keep away from heat and flames. No smoking. Keep container closed. Use only with adequate ventilation. Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. RESIDUAL VAPORS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Storage

General Information on Storage Conditions: Keep in a dry, cool place. Keep container closed when not in use. Store in well-ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Store out of direct sunlight in a cool well-ventilated place. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs), and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.



Keep stabilizer levels constant to avoid explosive polymerization. An air space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere.

Storage Stability - Remarks: Inhibitor levels should be maintained. The typical shelf-life for this product is 6 months.

Storage Incompatibility - General

Store separate from: Strong oxidizing agents; Strong reducing agents; Free radical generators; Inert gas; Oxygen scavenger; Peroxides

Temperature tolerance - Do not store below: 32°F (0°C)

Temperature tolerance - Do not store above: 100°F (38°C)

Section 8. Exposure Controls / Personal Protection

Airborne Exposure Guidelines:

2-Propenoic acid, Isooctyl ester (29590-42-9)

US - AIHA Workplace Environmental Exposure Level (WEEL) Guides

Time Weighted Average: 5 ppm (37.5 mg/m³)

Remarks: Listed

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

Engineering Controls: Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Respiratory Protection: Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-



pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin Protection: Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Avoid natural rubber gloves. Wash hands and contaminated skin thoroughly after handling.

Eye Protection: Use good industrial practice to avoid eye contact.

Section 9. Physical and Chemical Properties

Color: Clear - colorless

Physical State: Liquid

Odor: Slightly acrylic

Odor Threshold: No data available

Flash Point (Pensky-Martens closed cup): ~ 178°F (81°C)

Auto-Ignition Temperature: No data available

Lower Flammable Limit (LFL): No data available

Upper Flammable Limit (UFL): No data available

pH: ~ 7

Density: No data available

Specific Gravity (Relative Density): 0.8 - 0.9 (77°F/25°C)

Vapor Pressure: No data available

Vapor Density: No data available

Boiling Point/Boiling Range: No data available

Freezing Point: No data available

Evaporation Rate: No data available

Solubility in Water: negligible

Viscosity, Dynamic: < 10 mPa*s 77°F (25°C)

Oil/Water Partition Coefficient: No data available

Thermal Decomposition: No data available

Flammability (solid, gas): Not relevant

Section 10. Stability and Reactivity

Stability: This material is chemically stable under normal and anticipated storage, handling and processing conditions. However, this material can undergo hazardous polymerization.

Hazardous Reactions: Hazardous polymerization may occur. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Materials to Avoid: Strong oxidizing agents; Strong reducing agents; Free radical generators; Inert gas; Oxygen scavenger; Peroxides

Conditions/Hazards to Avoid: This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat. Avoid direct sunlight. Do NOT expose to ultraviolet light.

Hazardous Decomposition Products

Thermal decomposition giving flammable and toxic products: Carbon oxides; Acrylates; Hazardous organic compounds

Section 11. Toxicological Information

Data on this material and/or a similar material are summarized below.

Acute Toxicity

Oral: Practically nontoxic (Rat) LD50 > 5,000 mg/kg.

Dermal: May be harmful in contact with skin. (Rat) LD50 > 2,000 mg/kg.

Inhalation: 4 h Acute toxicity estimate > 40 mg/L

Skin Irritation: Practically non-irritating (Rabbit) Irritation Index: 0.7/8.0 (4h)

Eye Irritation: Mild eye irritation (Rabbit) Irritation Index: 0.2/110.0

Skin Sensitization: May cause allergic skin reaction. Guinea pig maximization test. (Guinea pig) Skin allergy was observed.

Repeated Dose Toxicity

Repeated dermal application administration to rat and mouse

Affected Organ(s): skin

Signs: irritation

No adverse systemic effects reported.

Repeated oral administration to Rat

Affected Organ(s): liver, kidney, Thyroid gland

Signs: changes in organ weights, changes in organ structure or function

Carcinogenicity: Chronic dermal application administration to Mouse

Signs: No increase in tumor incidence was reported.

Genotoxicity

Assessment in Vitro: No genetic changes were observed in laboratory tests using: bacteria, yeast, animal cells

Genetic changes were observed in laboratory tests using: human cells

Developmental Toxicity: Exposure during pregnancy. oral (Rat)

No birth defects were observed. (delays in development, at doses that produce effects in mothers)

Reproductive Effects: Reproduction Test. dermal application (Rat)

No toxicity to reproduction

Other Information: Possible cross sensitization with other acrylates and methacrylates

Section 12. Ecological Information

Chemical Fate and Pathway

Biodegradation: Readily biodegradable. (21 d) biodegradation 100 %



Octanol Water Partition Coefficient: $\log P_{ow} = 4.5 - 4.7$ (OECD Test Guideline 117)

Ecotoxicology: Data on this material and/or a similar material are summarized below.

Aquatic Toxicity Data: Very toxic. Pimephales promelas (fathead minnow) 96h LC50 = 0.67 mg/L

Aquatic Invertebrates: Very toxic. Daphnia magna (Water flea) 48h EC50 = 0.4 - 1.6 mg/L

Algae: Very toxic. Pseudokirchneriella subcapitata (green algae) 48h EC50 = 0.4 - 1.21 mg/L

Microorganisms: Respiration inhibition / Activated sludge 3h EC50 > 1,000 mg/L

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

US Department of Transportation (DOT)

UN Number: 3082

Proper Shipping Name: Environmentally hazardous substances, liquid, N.O.S.

Technical Name: (Isooctyl acrylate)

Class: 9

Packaging Group: III

Marine Pollutant: Yes

International Maritime Dangerous Goods Code (IMDG)

UN Number: 3082

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.

Technical Name: (Isooctyl Acrylate)

Class: 9

Packaging Group: III

Marine Pollutant: Yes

Flash Point: ~ 178°F (81°C) Pensky-Martens closed cup

Section 15. Regulatory Information

Chemical Inventory Status

EU - EINECS: Conforms

US - Toxic Substances Control Act (TSCA): The components of this product are all on the TSCA Inventory.

Australia - Industrial Chemical (Notification and Assessment) Act: Conforms

Canada - Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL): All components of this product are on the Canadian DSL.

Japan - Kashin-Hou Law List (ENCS): Conforms

Korea - Existing Chemicals Inventory (KECI): Conforms



Philippines - The Toxic Substances and Hazardous and Nuclear Waste Control Act (PICCS): Conforms

China - Inventory of Existing Chemical Substances (IECSC): Conforms

United States - Federal Regulations

SARA Title III - Section 302 Extremely Hazardous Chemicals: The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories: Reactivity Hazard, Acute Health Hazard, Fire Hazard

SARA Title III - Section 313 Toxic Chemicals: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

Chemical Name: 2-Propenoic acid

CAS Number: 79-10-7

Reportable Quantity: 5,000 lbs

New Jersey Right to Know: No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

Chemical Name: 2-Propenoic acid, isooctyl ester

CAS Number: 29590-42-9

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Chemical Name: Benzene, methyl-

CAS Number: 108-88-3

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: 8/3/2015