



Section 1. Product and Company Identification

Product Name Hexachlorocyclopentadiene
CAS Number 77-47-4

Parchem - fine & specialty chemicals

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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

Physical hazards

Not classified.

Health hazards

Acute toxicity, oral Category 3

Acute toxicity, dermal Category 2

Acute toxicity, inhalation Category 1

Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Sensitization, skin Category 1

Environmental hazards

Hazardous to the aquatic environment, acute hazard Category 1

Hazardous to the aquatic environment, long-term hazard Category 1

OSHA defined hazards

Not classified.

GHS Label Elements

Pictograms:



Signal word: DANGER



Hazard and precautionary statements

Hazard statement

Toxic if swallowed. Fatal in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ protective clothing/eye protection/face protection. Wear respiratory protection.

Response If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. Collect spillage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/ international regulations.

Hazard(s) not otherwise classified (HNOC): Lachrymator.

Section 3. Composition / Information on Ingredients

Common Name Hexachlorocyclopentadiene
Formula C_5Cl_6
CAS Number 77-47-4

COMPONENT	CAS NUMBER	CONCENTRATION
Hexachlorocyclopentadiene	77-47-4	100%

Section 4. First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison center immediately.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.



Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information: Take off immediately all contaminated clothing. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.

Section 5. Firefighting Measures

Suitable extinguishing media: Water fog/spray. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed (carbon oxides, hydrogen chloride gas).

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions: Move containers from fire area if you can do so without risk.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: No unusual fire or explosion hazards noted.



Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand, or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions: Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Section 7. Handling and Storage

Precautions for safe handling: Do not breathe vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities: Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).



Section 8. Exposure Controls / Personal Protection

Occupational Exposure Limits

US ACGIH Threshold Limit Values

Material	Type	Value
Hexachlorocyclopentadiene (CAS 77-47-4)	TWA	0.010000 ppm

US NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Hexachlorocyclopentadiene (CAS 77-47-4)	TWA	0.100000 mg/m ³ 0.010000 ppm

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: 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. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear eye/face protection. Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Wear appropriate chemical resistant gloves.

Other: Wear appropriate chemical resistant clothing.

Respiratory protection: Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using, do not eat, drink or smoke. Do not get this material on clothing. 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. Contaminated work clothing should not be allowed out of the workplace.

Section 9. Physical and Chemical Properties

Appearance

Physical state: Liquid.

Form: Liquid

Color: Yellow-green ligroin

Odor: Not available.

Odor threshold: Not available.



pH: Not available.

Melting point/freezing point: 15.8°F (-9°C)

Initial boiling point and boiling range: 462.2°F (239°C)

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower: Not available.

Flammability limit - upper: Not available.

Explosive limit - lower: Not available.

Explosive limit - upper: Not available.

Vapor pressure: 0.01 kPa at 25°C

Vapor density: 9.4

Relative density: Not available.

Solubility (water) 0 g/l at 77°F

Partition coefficient (n-Octanol/Water): 4

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Other information

Density: 1.7017 g/cm³ estimated

Molecular formula: C₅Cl₆

Molecular weight: 272.77 g/mol

Specific gravity: 1.7 at 25°C

Section 10. Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: No hazardous decomposition products are known.

Section 11. Toxicological Information

Information on likely routes of exposure

Ingestion: Toxic if swallowed. Causes digestive tract burns.

Inhalation: Fatal if inhaled.



Skin contact: Fatal in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.

Eye contact: Causes serious eye damage.

Symptoms related to the physical, chemical, and toxicological characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity: Fatal if inhaled. Fatal in contact with skin. Toxic if swallowed. May cause an allergic skin reaction.

Hexachlorocyclopentadiene (CAS 77-47-4)

Acute Toxicity

Dermal LD50 - Rabbit: 340 mg/kg

Inhalation LC50 - Guinea pig: 0.0802 mg/L (3.5 hours)

Inhalation LC50 - Rat: 0.0181 mg/L (4 hours)

Oral LD50 - Albino Rat: 300 - 630 mg/kg

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization: Not available.

Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not available.

Chronic effects: Prolonged inhalation may be harmful.

Section 12. Ecological Information

Ecotoxicity: Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.



Aquatic

Fish LC50 - Fathead minnow (*Pimephales promelas*): 0.007 mg/l, 96 hours

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Not available.

Partition coefficient (n-Octanol/Water): log Kow: 3.99

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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

UN number: UN2646

UN proper shipping name: Hexachlorocyclopentadiene

Transport hazard class(es)

Class: 6.1

Subsidiary risk: -

Label(s): 6.1

Packing group: I

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Special provisions: 2, B9, B14, B32, B77, T20, TP2, TP13, TP38, TP45

Packaging exceptions: None

Packaging non bulk: 227

Packaging bulk: 244

IATA

UN number: UN2646

UN proper shipping name: Hexachlorocyclopentadiene

Transport hazard class(es)

Class: 6.1

Subsidiary risk: -

Packing group: Not applicable.

Environmental hazards: No

ERG Code: 6L

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.



Other information

Passenger and cargo aircraft: Allowed.

Cargo aircraft only Allowed.

IMDG

UN number: UN2646

UN proper shipping name: Hexachlorocyclopentadiene

Transport hazard class(es)

Class 6.1

Subsidiary risk -

Packing group: I

Environmental hazards

Marine pollutant: No.

EmS: F-A, S-A

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory Information

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hexachlorocyclopentadiene (CAS 77-47-4) Listed.

SARA 304 Emergency release notification

Hexachlorocyclopentadiene (CAS 77-47-4) 10 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name: Hexachlorocyclopentadiene

CAS number: 77-47-4

Reportable quantity: 10



Threshold planning quantity: 100 lbs
Threshold planning quantity, lower value: N/A
Threshold planning quantity, upper value: N/A

SARA 311/312 Hazardous Chemical: Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	Percentage
Hexachlorocyclopentadiene	77-47-4	100% wt.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hexachlorocyclopentadiene (CAS 77-47-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Not regulated.

Clean Water Act (CWA) Hazardous substance

Section 112(r) (40 CFR 68.130): Priority pollutant; Toxic pollutant

Safe Drinking Water Act (SDWA): 0.05 mg/l

US State Regulations

US Massachusetts RTK - Substance List

Hexachlorocyclopentadiene (CAS 77-47-4)

US New Jersey Worker and Community Right-to-Know Act

Hexachlorocyclopentadiene (CAS 77-47-4) 100 LBS

US Pennsylvania RTK - Hazardous Substances

Hexachlorocyclopentadiene (CAS 77-47-4)

US Rhode Island RTK

Hexachlorocyclopentadiene (CAS 77-47-4)

US California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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.

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