1. IDENTIFICATION

Product Identifier: HALOCARBON 0.8 OIL; 0.8H OIL
Synonyms: Polychlorotrifluoroethylene
Chemical Formula: Cl-(C2F3Cl)n-Cl
Recommended Use of the Chemical: Low temperature fluid / Process fluid
Uses Advised Against: Not for drug, household or other uses
Manufacturer / Supplier: HALOCARBON PRODUCTS CORPORATION
  Address: 6525 The Corners Parkway, Suite 200, Peachtree Corners, GA, 30092 United States
  Website: www.halocarbon.com
  Email: sds@halocarbon.com
  Phone: (201) 262-8899
Emergency CHEMTREC Phone: (800) 424-9300 United States / 001-703-527-3887 International and Maritime

2. HAZARD(S) IDENTIFICATION

Classification of the Substance or Mixture: Not classified
Risk Phrases: None
Label Elements:
  Signal Word: None
  Pictogram: None
  Hazard Statements: None
  Precautionary Statements: None
Other Hazards:

Substance Meets the Criteria for PBT According to Regulation (EC) No. 1907/2006 Annex XIII:
PBT: Not applicable

Substance Meets the Criteria for vPvB According to Regulation (EC) No. 1907/2006 Annex XIII:
vPvB: Not applicable

Other Hazards Which Do Not Result in Classification: Not available

3. COMPOSITION INFORMATION / INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychlorotrifluoroethylene</td>
<td>9002-83-9</td>
<td>Not applicable</td>
<td>99-100%</td>
</tr>
</tbody>
</table>

No ingredients are hazardous according to OSHA criteria.
No components need to be disclosed according to the applicable regulations.
4. FIRST-AID MEASURES

Description of First Aid Measures:

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Seek medical help.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention. Seek medical help.

**Skin Contact:** Wash off with soap and plenty of water.

**Eye Contact:** Flush eyes immediately with water for at least 15 minutes. Seek medical help.

Most Important Symptoms and Effects, Both Acute and Delayed:

**Potential Acute Health Effects:**

- **Inhalation:** None known
- **Ingestion:** None known
- **Skin Contact:** None known
- **Eye Contact:** None known

**Over-exposure signs/symptoms:** Prolonged or repeated contact may dry skin and cause irritation. From animal studies, signs of fluoride poisoning may be expected. These include nausea, shortness of breath and loss of appetite.

- **Inhalation:** None known with respect to humans
- **Ingestion:** None known with respect to humans
- **Skin Contact:** None known with respect to humans
- **Eye Contact:** None known with respect to humans

5. FIRE-FIGHTING MEASURES

**Extinguishing Media:**

**Suitable Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media:** No information available

**Special Hazards Arising From the Substance or Mixture:**

**Hazards From the Substance or Mixture:** No information available

**Hazardous Thermal Decomposition Products:** Thermal decomposition products are toxic and corrosive. See Section 10.

**Advice for Fire-Fighters:**

**Special Precautions for Fire-Fighters:** 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.

**Special Protective Equipment for Fire-Fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid breathing vapors, mist or gas. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions: Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

Methods and Materials for Containment and Cleaning Up: Spills may be picked up with absorbent such as vermiculite and held in covered container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe dust, vapors or spray mist. Avoid contact with skin and eyes.

Conditions for Safe Storage, Including Any Incompatibilities: Protect against physical damage. Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children.

Specific End Uses: Low temperature fluid / Process fluid

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits: No OSHA or ACGIH exposure limits have been established. Safe work practices should always be followed.

Ventilation System: Adequate general ventilation plus local exhaust at points of emission. Since the potential for human toxicity cannot be ruled out, proper ventilation and work practices should be employed.

Personal Respirators (NIOSH Approved): Under conditions of heavy exposure, respiratory protection is not normally required. Self contained breathing apparatus for large spills.

Skin Protection: Wear impervious gloves.

Eye Protection: Use chemical safety goggles or goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Odor: Slight ethereal odor
Odor Threshold: Not determined
pH: No data available
Melting Point: < -130C (266F)
Boiling Point / Boiling Range: 132C (269.6F) Approximate
Flash Point: None
Evaporation Rate (BuAC=1): No data available
Flammability: Not flammable
Upper / Lower Flammability or Explosive Limits: Not applicable
Vapor Pressure (mm Hg): ca 10 mm Hg at 21C (69.8F)
Vapor Density (Air=1): 10 Approximate
Relative Density: 1.7 @ 38C (100.4F)
Solubility: Negligible
Partition Coefficient: n-octanol / water: No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available
10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under recommended storage conditions

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

Conditions to Avoid: Incompatibles

Incompatible Materials: Reacts with active metals like Sodium and Potassium, Amines (including additives), liquid Fluorine and liquid Chlorine Trifluoride. Caution should be used with Aluminum and Magnesium under conditions of large shear forces such as those found in threaded connections.

Hazardous Decomposition Products: The decomposition to toxic, non-sludge forming volatile compounds occurs rapidly at 325°C, noticeably at 300°C and in lesser amounts at lower temperatures. Therefore, the maximum safe operating temperature recommended is 200°C and maximum short term temperature recommended is 260°C in scrupulously clean systems.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Halocarbon 0.8 oil produced no deaths among 10 rats upon an 8 hr. exposure to 2650 ppm (34.3 mg/L) during a 1999 study and is considered by OSHA definition to be nontoxic. The animals showed no effects during exposure or 14 days afterward. All animals gained weight during the 14 day observation period. Autopsy showed no macroscopic abnormalities.

Potential Health Effects:

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: No data available.

Eye Contact: No data available.

Chronic Exposure: No known effects.

Aggravation of Pre-existing Conditions: No known effects.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System): No data available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System): No data available.

Germ Cell Mutagenicity: No known effects.

Reproductive Toxicity: No known effects.

Aspiration Hazard: No known effects.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

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<th>Ingredient</th>
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<th>Anticipated</th>
<th>IARC Category</th>
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<tr>
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<td>No</td>
<td>None</td>
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</tbody>
</table>
12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence and Degradability: No data available
Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Results of PBT and vPvB assessment: PBT / vPvB assessment not available as chemical safety assessment not required / not conducted.
Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic): Not regulated
Maritime Transport IMDG/GGVSea: Not regulated
Air Transport ICAO-TI and IATA-DGR: Not regulated
Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable
Special Precautions for User: No additional information

15. REGULATORY INFORMATION

Chemical Inventory Status – Part 1

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<th>EC</th>
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Chemical Inventory Status – Part 2

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Federal, State & International Regulations - Part 1

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Federal, State & International Regulations - Part 2

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Effective Date: 10/18/2016- Corrected chemical formula, added 0.8H
Previous Revisions: 01/02/16, 02/01/11, 02/25/10

**HMIS**

- **Health**: 1
- **Flammability**: 0
- **Reactivity**: 0

**Disclaimer**: Halocarbon believes the information given here to be correct. However, we cannot guarantee its accuracy or be responsible for loss or damage that result from the use of such information.