

# SDS – SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product Identifier:** HALOCARBON 3.0, 4.2, 6.3, 27, 27M, MWF-32, 56, MWF-56, 60, 95, 100, 190, 200, 400, 700, 1000N OILS

**Synonyms:** Polychlorotrifluoroethylene, Halovac Oils

**Chemical Formula:** Cl-(C<sub>2</sub>F<sub>3</sub>Cl)<sub>n</sub>-Cl

**Recommended Use of the Chemical:** Industrial Lubricant

**Uses Advised Against:** No information available

## 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

Ingredient	CAS Number	EC Number	Percent
Polychlorotrifluoroethylene	9002-83-9	Not applicable	<=99.9%

**“S” oils contain rust inhibitor at 0.1%**

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.

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

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

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

### Most Important Symptoms and Effects, Both Acute and Delayed:

#### Potential Acute Health Effects:

**Inhalation:** No data available

**Ingestion:** No data available

**Skin Contact:** No data available

**Eye Contact:** No data available

**Over-exposure signs/symptoms:** Based on animal studies, signs of fluoride poisoning may be expected. These include nausea, shortness of breath and loss of appetite.

**Inhalation:** No data available for humans

**Ingestion:** No data available for humans

**Skin Contact:** No data available for humans

**Eye Contact:** No data available for humans

## 5 FIRE-FIGHTING MEASURES

### Extinguishing Media:

**Suitable Extinguishing Media:** Use agent suitable for surrounding fire; CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or firefighting foam.

**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 vapors or spray mist.

**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:** Industrial Lubricant

## 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:** Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

**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:** It is good practice to use chemical safety goggles or goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Colorless liquid

**Odor:** Slight ethereal odor

**Odor Threshold:** Not determined

**pH:** No data available

**Melting Point:** Not Determined

**Boiling Point / Boiling Range:** No data available

**Flash Point:** Not applicable

**Evaporation Rate (BuAC=1):** No data available

**Flammability:** Not flammable

**Upper / Lower Flammability or Explosive Limits:** Not applicable

**Vapor Pressure (mm Hg):** No data available

**Vapor Density (Air=1):** No data available

**Relative Density:** 1.9 g/cm<sup>3</sup> (15.856 lbs/gal)

**Solubility:** Insoluble

**Partition Coefficient: n-octanol / water:** No data available

**Auto-ignition Temperature:** No data available

**Decomposition Temperature:** Rapidly at 325, noticeably at 300, safe operating temperature is 200 and maximum short term temperature is 260 in scrupulously clean systems

**Viscosity:** No data available

**Explosive Properties:** Not determined

**Oxidizing Properties:** Not determined

**Other Information:** No specific data

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available

**Chemical Stability:** Stable under recommended storage conditions

**Possibility of Hazardous Reactions:** 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.

**Conditions to Avoid:** Incompatibles

**Incompatible Materials:** Active metals, amines liquid Fluorine and liquid Chlorine Trifluoride

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

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity:

Extensive studies have been conducted on lighter, more volatile Halocarbon oils. Based on all the available data in three species of animals, limited exposure to Halocarbon oil should not be harmful to any portion of the human anatomy. Studies conducted by the Air Force have demonstrated liver toxicity in rodents but not in primates. The observed liver toxicity is believed to be specific for rodents and not relevant to humans. All mutagenicity studies were negative.

Halocarbon oils are not irritating to skin but skin protection should be used to prevent repeated exposure and the possibility of sensitization.

In the absence of chronic toxicity data on these products, exposure to these products and their vapors should be avoided since the potential for human toxicity cannot be ruled out.

### Potential Health Effects:

**Inhalation:** No known effects

**Ingestion:** No known effects

**Skin Contact:** No known effects

**Eye Contact:** No known effects

**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

Ingredient	Known	Anticipated	IARC Category
Polychlorotrifluoroethylene (9002-83-9)	No	No	None

**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****Federal, State & International Regulations - Part 1**

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List Chemical	Catg.
Polychlorotrifluoroethylene (9002-83-9)	No	No	No	No

**Federal, State & International Regulations - Part 2**

Ingredient	RCRA		TSCA
	CERCLA	261.33	8(d)
Polychlorotrifluoroethylene (9002-83-9)	No	No	No

<b>Chemical Weapons Convention:</b> No	<b>TSCA 12(b):</b> No		<b>CDTA:</b> No
<b>SARA 311/312:</b>	<b>Acute:</b> No	<b>Chronic:</b> No	<b>Fire:</b> No
<b>Reactivity:</b> No	Pure / Liquid		
	<b>Pressure:</b> No		

## 16 OTHER INFORMATION

*Revised: Added MWF-32, 02/17/2017*

*Revised: Added MWF-56, 01/06/2017*

*Revised: Added 100, Halovac*

*Revised: Added HC 190 oil, 11/2/2016*

*Revised: Added 27M oil, 06/17/2016*

*Revised: Added Halovac 60 oil, removed MP 12/16/15*

*Revised: 06/15/15 – Standardized for GHS / REACH*

*Previous Revisions: 02/14/14 –Prepared to GHS Rev03*

*Revised: 9/19/19 – Updated Manufacture Contact Information*

*Revised 1/31/19 – Updated firefighting foam*

### 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.