Safety Data Sheet

Material Name: Low Temperature Bath Fluid, 0.8 CS Oil

*** Section 1 - Product and Company Identification ***

Manufacturer Information

Halocarbon Products Corp.
887 Kinderkamack Road
River Edge, NJ 07661

Phone: +1.201.262.8899

Emergency # +1.803.278.3504

Distributor Information

Fluke Corp.
6920 Seaway Blvd.
Everett, WA 98203

Phone: +1.877.883.8225

Emergency # +1.800.633.8253

*** Section 2 - Hazards Identification ***

GHS Classification:

Acute Toxicity - Oral - Category 5
Acute Toxicity - Inhalation - Category 5

GHS LABEL ELEMENTS

Symbol(s)

None

Signal Word

Warning

Hazard Statements

May be harmful if swallowed
May be harmful if inhaled

Precautionary Statements

Response

Call a POISON CENTER/doctor/physician if you feel unwell.

Disposal

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

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
9002-83-9	Polychlorotrifluoroethylene	100

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes immediately with water for at least 15 minutes. Seek medical help.

First Aid: Skin

Wash with soap and water.

First Aid: Ingestion

Try to induce vomiting. Seek medical help.

First Aid: Inhalation

Remove to fresh air. Apply artificial respiration if needed. Seek medical help.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Non-flammable

Hazardous Combustion 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.

Extinguishing Media

Use agent appropriate for surrounding fire.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

None

Materials and Methods for Clean-Up

Spills may be picked up with absorbent such as vermiculite and held in covered container for disposal.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear proper personal protective equipment when cleaning spills.

Environmental Precautions

None

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Wash thoroughly after handling.

Storage Procedures

None.

Incompatibilities

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.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

The EU, ACGIH, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and United Kingdom have not developed exposure limits for any of the substances in this preparation.

Engineering Measures

Adequate general ventilation plus local exhaust at points of emission.

Personal Protective Equipment: Respiratory

None needed under normal product use conditions.

Personal Protective Equipment: Hands

Use impervious gloves.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes

Use safety glasses/goggles or face shield.

Personal Protective Equipment: Skin and Body

Normal work clothing (long sleeved shirts and long pants) is recommended.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Colorless	**Odor:**	Slight ethereal
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	Ca. 10 mm Hg (21°C)	**Vapor Density:**	~10
Boiling Point:	Ca. 132°C	**Melting Point:**	<-130°C
Solubility (H2O):	Negligible	**Specific Gravity:**	1.7 (38°C)
Evaporation Rate:	ND	**VOC:**	ND
Octanol/H2O Coeff.:	ND	**Flash Point:**	NA
Flash Point Method:	NA	**Upper Flammability Limit (UFL):**	NA
Lower Flammability Limit (LFL):	NA	**Burning Rate:**	NA
Auto Ignition:	NA		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

None

Incompatible Products

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 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.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

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 signs of treatment during exposure or 14 days afterward. All animals gained weight during the 14 day observation period. Autopsy showed no macroscopic abnormalities.

In a 4 hour exposure among rats conducted in 1989, Halocarbon 0.8 oil was found to have a LC50 of 4.6 mg/L. This result placed it into EPA toxicity Category III (Slightly Toxic). The animals generally showed no response during exposure or for at least one day after exposure. Signs of toxicity including tremors, nasal discharge and labored breathing began appearing two or three days after exposure. The responses generally abated in surviving animal during the second week after exposure.

More extensive toxicity studies have been conducted on a slightly heavier Halocarbon oil (3.1). 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. Halocarbon oil is not irritating to skin but skin protection should be used to prevent repeated exposure and the possibility of sensitization. All mutagenicity studies were negative.

Since the potential for human toxicity cannot be ruled out, proper ventilation and work practices should be employed.

B: Component Analysis - LD50/LC50

Polychlorotrifluoroethylene (9002-83-9)

Oral LD50 Rat >9200 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

No skin irritation effects known.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

No eye irritation effects known.

Potential Health Effects: Ingestion

May be harmful if ingested.

Potential Health Effects: Inhalation

May be harmful if inhaled.

Respiratory Organs Sensitization/Skin Sensitization

No sensitization effects known.

Generative Cell Mutagenicity

No mutagenic effects known.

Carcinogenicity

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Reproductive Toxicity

No reproductive toxicity effects known.

Specified Target Organ General Toxicity: Single Exposure

No single exposure toxic effects known.

Specified Target Organ General Toxicity: Repeated Exposure

No repeat exposure toxic effects known.

Aspiration Respiratory Organs Hazard

No aspiration hazards known.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

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

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

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

* * * Section 14 - Transportation Information * * *

IATA Information

Shipping Name: Not Regulated

ICAO Information

Shipping Name: Not Regulated

IMDG Information

Shipping Name: Not Regulated

* * * Section 15 - Regulatory Information * * *

Regulatory Information

Substance Analysis - Inventory

Component	CAS #	EEC	CAN	TSCA
Polychlorotrifluoroethylene	9002-83-9	No	DSL	Yes

* * * Section 16 - Other Information * * *

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

Literature References

None

End of Sheet