



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Paratherm CR® Heat Transfer Fluid

Company Identification: Paratherm Corporation
4 Portland Road
West Conshohocken, PA 19428 USA

Product Information: +1-610-941-4900
info@paratherm.com

Emergency Telephone: 1-610-941-4900
Chemtrec (USA): 1-800-424-9300
Chemtrec (outside USA): 1-703-527-3887

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

- Harmful or fatal if swallowed or inhaled. Can cause lung damage
- Water white liquid with sweet odor
- Combustible liquid

Potential Health Effects:

Eye: Can be harmful. May cause irritation, tearing, redness, and blurred vision. Conjunctivitis is possible with continuous exposure.

Skin: Systemic toxicity is possible with continuous exposure. Can cause irritation, reddening, drying, itching, and cracking.

Ingestion: Aspiration into lungs can cause lung damage or death. May cause irritation, nausea, vomiting, diarrhea, and central nervous system depression.

Inhalation: Extreme exposures may result in unconsciousness, coma, respiratory arrest, and possible death. May cause irritation, burning and central nervous system depression such as drowsiness, dizziness, fatigue, and blurred vision.

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Diethylbenzene	25340-17-4	<75%
Proprietary diluent	Proprietary	>25%

SECTION 4 FIRST AID MEASURES

Eye: Immediately flush eyes with large amounts of cool water and continue for at least 15 minutes. Get medical attention.

Skin: Promptly remove contaminated clothing - do not re-use without laundering. Flush exposed areas with large quantities of water and/or wash with warm water and soap. Get medical attention if irritation persists.

Ingestion: Get immediate medical attention. Do not induce vomiting.

Inhalation: Immediately remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

Unusual Fire and Explosion Hazards: Vapors may travel long distances along the ground to ignition sources causing flash back.

Extinguishing Media: Water fog, foam, dry chemical, or carbon dioxide (CO₂) should be used. Do not use direct water stream

Fire Fighting Instructions: Firefighters should wear NIOSH approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Cool drums with water spray. Prevent runoff from entering sewers or waterways. Avoid spreading burning liquid with water.

Combustion Products: Airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material. Use personal protection recommended in Section 8.

Spill Management: Contain release to prevent further contamination of soil, surface water or groundwater. Absorb spills with inert absorbent material. Store collected material in a suitable, labeled container and dispose of material in a manner consistent with applicable regulations. If heated material is spilled, allow it to cool to ambient before proceeding with disposal methods. Keep area around hot, spilled material well ventilated.

Reporting: Report spills to appropriate local authorities. Discharge or spills that produce a visible sheen on surface water or in waterways/sewers that lead to surface water must be reported to appropriate authorities.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: Use good personal hygiene practices and recommended Personal Protective Equipment (see Section 8). Fire extinguishers should be kept readily available. Clean up any spill promptly.

Storage: Store closed containers away from heat, sparks, open flames, or oxidizing materials. Do not transfer to unmarked containers. Protect metal drums from direct sunlight and water.

Handling: This material is a static accumulator. Bonding and grounding of transfer equipment may be necessary but may not be sufficient. Avoid generating mist. Use with adequate ventilation.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

	Diethyl benzene	Proprietary diluent
ACGIH TLV	Not established	Not established
ACGIH STEL	Not established	Not established
OSHA TLV	Not established	Not established
OSHA STEL	Not established	Not established

*abbreviation listing in Section 16

Engineering Controls: Use only in a very well ventilated area or in a laboratory exhaust hood

Personal Protective Equipment:

Eye/Face Protection: Wear safety glasses with side shields, chemical goggles or face shields.

Skin Protection: Wear rubber protective covers (boots, aprons, gloves) if splashing is possible. Use good personal hygiene practices before and after fluid handling.

Respiratory Protection: No respiratory protection is normally required for properly ventilated areas. If a mist or vapors are generated during use, wear a NIOSH certified organic vapor respirator with a dust and mist filter.

Additional Recommendations: Provide eyewash stations and safety showers in area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Water white liquid before use	Vapor Density (Air = 1):	>1
Odor:	Strong sweet odor	Evaporation Rate (BuAc = 1):	0.14
pH:	NA	Initial Boiling Point:	>400°F (204°C) ASTM D2887
Density:	6.6 lb/gal @ 75 °F (23.9 °C)	Solubility:	Insoluble in water.
Flashpoint:	>105°F (40.6°C) Closed Cup	Pour Point:	<-65°F (-54°C)
Vapor Pressure:	<1mm @70F (21.1°C)		

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable under normal storage and handling conditions.

Conditions to Avoid: Sources of ignition

Incompatibility With Other Materials: May react with strong oxidizing agents.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition Products: None known.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity: All toxicity testing performed on albino rats or albino rabbits.

Eye (rabbits): Single dose of 0.1mL directly into eye. No positive effects at any time during 72 hour study.

Skin (rats): Single dose of 5050 mg/kg.. 50% of test animals developed skin irritation which cleared after 4 days. No mortality

Extended skin (rabbits): Single dosed of 0.5 mL which remained in contact for 4 hours. Rated slightly irritating.

Ingestion (rats): LD50 = 4472 mg/kg

Inhalation: Exposure to mist concentration of 2.25 mg/L for 4 hours. No mortality. LC50 >2.25 mg/liter

Carcinogenicity:

NTP: No **IARC:** No **OSHA:** No

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

A component of this product is classified as toxic to aquatic organisms. Long-term adverse effects in the aquatic environment are possible because of slow biodegradation. Discharge or spills that produce a visible sheen on either surface water or in waterways/sewers that lead to surface water must be reported to the National Response Center at 800-424-8802.

ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. Handle in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

In bulk containers (>110 gallons) this product is hazardous as defined by 49 CFR 172.101 by the U.S. Department of Transportation when shipped by air, ocean vessel, highway, or rail.

In non-bulk containers (<110 gallons):

DOT Shipping Name: NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION
DOT Hazard Class: NOT APPLICABLE
DOT Identification Number: NOT APPLICABLE
DOT Packing Group: NOT APPLICABLE

IATA & IMDG Shipping Name: Hydrocarbons, liquid, n.o.s.
IATA & IMDG UN Number: UN3295
IATA & IMDG Hazard Class: 3 (flammable)
IATA & IMDG Packing Group: III

North American Emergency Response Guidebook Number (2004): 128

SECTION 15 REGULATORY INFORMATION

RCRA HAZARDOUS WASTE NUMBER AND CLASSIFICATION: Not applicable

TSCA INVENTORY STATUS: Ingredients listed

SARA TOXIC CHEMICAL AND SARA EHS: This product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects:	Yes
2. Delayed (Chronic) Health Effects:	NO
3. Fire Hazard:	Yes
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

OSHA REGULATIONS: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: B3-combusstible liquid with a flash point between 37.8°C and 93.3°C D2B-eye or

skin irritant.

CLEAN AIR ACT: This product is not classified as a Hazardous Air Pollutant (HAP) under Section 112 of the Clean Air Act.

CALIFORNIA PROPOSITION 65: This product does not contain materials which the state of California has found to cause cancer, birth defects, or other reproductive harm.

REGULATORY LISTS SEARCHED:

4A=IARC Group 1	12=TSCA Section 8(a) PAIR	21=TSCA Section 5(a)
4B=IARC Group 2A	13=TSCA Section 8(d)	25=CAA Section 112 HAPs
4C=IARC Group 2B	15=SARA Section 313	26=CWA Section 311
05=NTP Carcinogen	16=CA Proposition 65	28=CWA Section 307
06=OSHA Carcinogen	17=MA RTK	30=RCRA Waste P-List
09=TSCA 12(b)	18=NJ RTK	31=RCRA Waste U-List
10=TSCA Section 4	19=DOT Marine Pollutant	32=RCRA Appendix VIII
11=TSCA Section 8(a) CAIR	20=PA RTK	

CHEMICAL INVENTORIES:

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian Domestic Substances List (DSL).

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.

KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.

SWITZERLAND: All the components of this material are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

EU RISK AND SAFETY PHRASES:

R53: May cause long-term adverse effects in the aquatic environment.

S56: Dispose of this material and its container at hazardous or special waste collection point.

S57: Use appropriate container to avoid environmental contamination.

S60: This material and its container must be disposed of as hazardous waste.

S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

WHMIS CLASSIFICATION:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

SECTION 16 OTHER INFORMATION

Recommended Use: Heat transfer agent

Date of Revision: 09/02/08

Reason for Revision: Update Sections 2, 3, 4, 5, 6, 7, 8, 12

NFPA RATINGS: Health: 2 Flammability: 2 Reactivity: 0

HMIS RATINGS: Health: 2 Flammability: 2 Reactivity: 0
0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Abbreviations that may have been used in this document

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
IDLH		Immediate Danger to Life and Health	CAS	-	Chemical Abstract Service Number
NOHSC		Nat'l Occup. Health & Safety Comm.	TLV		Threshold Limit Value
C					
<	-	Less Than	>	-	Greater Than
<=	-	Less Than or Equal To	>=	-	Greater Than or Equal To

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard Z400.1).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.