



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Paratherm NF® 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

Water-white oil with minimal odor before use.
May turn dark and develop characteristic petroleum odor when product is used.
Combustible liquid.

Potential Health Effects:

Eye: Non-irritating to eyes on direct contact before use. Mildly irritating to eyes after product is used.

Skin: Non-irritating on direct single or repeated and prolonged contact when new. Repeated or prolonged contact of used product may cause minor skin irritation.

Ingestion: No harmful effects are expected from ingesting new product or small amounts of used product unless aspiration occurs. Aspiration may lead to chemical pneumonitis which can be fatal. Ingestion of used product may cause abdominal discomfort.

Inhalation: Exposure to smoke or mist while product is in use may cause irritation to upper respiratory tract and lungs. Prolonged or repeated exposure to mists may cause chemical pneumonitis which can be fatal.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Hydrotreated mineral oil	8042-47-5	100%

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water. If symptoms persist, seek medical attention. If fluid is hot, treat burns and seek medical assistance.

Skin: Wash exposed areas with warm water and soap. If fluid is hot, submerge injured area in cold water. Seek medical attention for severe burns.

Ingestion: May act as laxative. Do not induce vomiting. If vomiting does occur, lower head below knees to avoid aspiration. Seek medical attention.

Inhalation: If smoke or mist is generated when fluid is in use, remove victim from exposure. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if available. If victim is unconscious, remove to fresh air and seek medical attention.

SECTION 5 FIRE FIGHTING MEASURES

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

Fire Fighting Instructions: Do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment (including drums) exposed to fire with water if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

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. Use appropriate techniques such as non-combustible absorbent materials. Store collected material in a suitable, labeled container. Dispose of contaminated materials 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. This product is classified as an "Oil" under Section 311 of Clean Water Act (USA). 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: Product is not hazardous. Use good personal hygiene practices. 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.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Component: Hydrotreated mineral oil	OSHA PEL*: 5 mg/m ³ TWA
	ACGIH TLV: 5 mg/m ³ TWA 10 mg/m ³ STEL
	NIOSH: 2500 mg/m ³ IDLH
As oil mist if generated:	5 mg/m ³ NOHSC TWA

- NOTE: Abbreviation listing in Section 16

Engineering Controls: Use in a well-ventilated area

Personal Protective Equipment:

Eye/Face Protection: Where splashing is possible, wear safety glasses with side shields.

Skin Protection: No protection required for short duration exposure. For prolonged or repeated exposure to used fluid, synthetic rubber (nitrile) protective covers (boots, aprons, gloves) may be desirable. If material will be handled while hot, wear insulated clothing. Use good personal hygiene practices before and after fluid handling.

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Water white oil before use	Vapor Pressure: <1mm @70°F (21.1°C)
Odor: Minimal before use	Vapor Density (Air = 1): >1
pH: NA	Evaporation Rate (BuAc = 1): <1
Density: 7.4 lb/gal @ 75 °F (23.9 °C)	Boiling Point: >500°F (260°C)
Flashpoint: >300°F (148.9°C) Pensky-Martens Closed Cup	Solubility: Insoluble in water.
	Freezing Point: N/A

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable under normal storage and handling conditions.

Conditions to Avoid: None

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:

Skin Absorption: Dermal LD50= >2000 mg/kg, LC50= >5mg/kg (white rat)
Ingestion: Oral LD50= >5000 mg/kg (white rat)

Carcinogenicity:

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

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicity: Product is insoluble in water. Aquatic toxicology testing performed in either Water Accommodated Fraction (WAF) or Water Soluble Fraction (WSF)

Invertebrates: Water Flea (*Daphnia pulex*) - 73.7% survival in WSF
Mysid Shrimp (*Mysidopsis bahia*) – 100% survival in WAF
Fish: Rainbow trout (*Oncorhynchus mykiss*) – 100% survival in WSF

Biodegradability: Product is not expected to be biodegradable

SECTION 13 DISPOSAL CONSIDERATIONS

New or used uncontaminated material can be burned for fuel value in an approved facility or can be removed by a licensed waste oil recycler. Used product that has been contaminated with a regulated material may need to be incinerated. Refer to state and local regulations for more detailed information.

SECTION 14 TRANSPORT INFORMATION

US DOT: Not regulated **IATA & IMDG:** Not regulated

SECTION 15 REGULATORY INFORMATION

United States

RCRA Hazardous Waste Number and Classification: Not applicable
TSCA Inventory Status: Included
SARA Title III Section 313 and 40 CFR 372: Not subject to reporting requirements
Clean Air Act Section 112: Not classified as a Hazardous Air Pollutant (HAP)
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.

Canada

Domestic Substances List: Listed
WHMIS Classification: Not controlled

International Inventories:

Australia (AICS)	Japan (ENCS)
China	Korea (ECL)
Europe (EINECS)	Philippines (PICCS)

SECTION 16 OTHER INFORMATION

Recommended Use: Heat transfer agent

Date of Revision: September 1, 2009 **Reason for Revision:** Update

NFPA RATINGS: Health: 0 Flammability: 1 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.	OSHA		Occupational Safety and Health Administration
<	-	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.