

# Material Safety Data Sheet MSDS



**Paratherm Corporation**  
**NF® Heat Transfer Fluid**

## 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 pneumoitis 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 (CO<sub>2</sub>) 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:

<b>Component:</b> Hydrotreated mineral oil	<b>OSHA PEL*:</b> 5 mg/m <sup>3</sup> TWA
	<b>ACGIH TLV:</b> 5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL
	<b>NIOSH:</b> 2500 mg/m <sup>3</sup> IDLH
<b>As oil mist if generated:</b>	5 mg/m <sup>3</sup> 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  
**Odor:** Minimal before use  
**pH:** NA  
**Density:** 7.25 lb/gal @ 75 °F (23.9 °C)  
**Flashpoint:** > 340°F (171.1°C) Cleveland  
Open Cup

**Vapor Pressure:** <1mm @70F (21.1°C)  
**Vapor Density (Air = 1):** >1  
**Evaporation Rate (BuAc = 1):** <1  
**Boiling Point:** >500°F (260°C)  
**Solubility:** Insoluble in water.  
**Freezing Point:** <-35°F (-37.2°C)

## 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:** 09/14/07      **Reason for Revision:** New

**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.      TLV      -      Threshold Limit Value  
<      -      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.