# Material Safety Data Sheet MSDS

# Paratherm HR™ Heat Transfer Fluid

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name: Paratherm HR Heat Transfer Fluid**

**Company Identification:** Paratherm
31 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

Almost water white oil with slight solvent odor before use.
Will turn dark brown and develop chemical odor when product is used.
Combustible liquid.

**Potential Health Effects:**

**Eye:** Unused product may cause minor irritation on direct contact. Used product will cause irritation.

**Skin:** Non-irritating on direct single or repeated and prolonged contact with new product. Used product will cause minor skin irritation.

**Ingestion:** May cause nausea and abdominal discomfort. Aspiration may lead to chemical pneumonitis which can be fatal.

**Inhalation:** Exposure to smoke or vapors will cause irritation, dizziness and headaches. Prolonged or repeated exposure to mists may cause chemical pneumoitis which can be fatal.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

| COMPONENTS | CAS NUMBER | AMOUNT |
|---|---|---|
| Alkylated bi-phenyl | 69009-90-1 | >90% |
| Isopropyl biphenyl | 25640-78-2 | <10% |

## SECTION 4 FIRST AID MEASURES

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

**Skin:** Remove and launder contaminated clothing. Wash exposed areas with warm water and soap. If fluid is hot, submerge injured area in cold water. Seek medical attention for severe burns or if irritation persists.

**Ingestion:** Seek medical attention immediately. Only induce vomiting at the instruction of a physician. If vomiting does occur, lower head below knees to avoid aspiration.

**Inhalation:** Remove to fresh air. If breathing has stopped or is irregular, administer artificial respiration and seek medical attention.

## SECTION 5 FIRE FIGHTING MEASURES

**Extinguishing Media:** Water fog, foam, dry chemical, or carbon dioxide ($CO_2$) should be used. Do not use direct water stream

**Fire Fighting Instructions:** Wear full protective clothing and 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:** Use personal protection recommended in Section 8.

**Spill Management:** Ventilate area. Contain release. Prevent material from entering storm sewers and waterways. Use appropriate collection 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 very well ventilated.

**Reporting:** Report spills to appropriate local 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. Avoid exteneded storage at high temperatures. Do not transfer to unmarked containers. Protect metal drums from direct sunlight and water.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Use only in a well-ventilated area

**Personal Protective Equipment:**

**Eye/Face Protection:** Safety glasses, chemical type goggles or face shield recommended

**Skin Protection:** Synthetic rubber (nitrile) protective covers (boots, aprons, gloves) should be worn. 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:** Slight solvent odor before use
**pH:** NA
**Density:** 8.0 lb/gal @ 75ºF (23.9ºC)
**Flashpoint:** > 335ºF (168ºC) Closed Cup
**Vapor Pressure:** <1mm @70F (21.1ºC)
**Vapor Density (Air = 1):** >1
**Evaporation Rate (BuAc = 1):** <1
**Boiling Point:** >630ºF (332ºC)
**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:** May form carbon monoxide with incomplete combustion

## SECTION 11 TOXICOLOGICAL INFORMATION

**Acute Toxicity:** Not determined

**Other:** This product has been shown to damage red blood cells or blood forming organs and has caused anemia in laboratory animals.

## SECTION 12 ECOLOGICAL INFORMATION

**Environmental Toxicity:** Product is insoluble in water. Keep material from entering sewers or surface water.

**Biodegradability:** Product is not biodegradable

## SECTION 13 DISPOSAL CONSIDERATIONS

New, unused product does not meet the criteria of a hazardous waste under RCRA regulations. Used material may be classified as a hazardous waste due to byproducts of degradation that could include various aromatic compounds. Used material should be analyzed before disposal.

## SECTION 14 TRANSPORT INFORMATION

**US DOT:** Not regulated **IATA:** Not regulated

**TDG:** Not regulated **IMDG:** Not regulated

## SECTION 15 REGULATORY INFORMATION

**United States**

**RCRA Hazardous Waste Number and Classification:** Not applicable for unused product
**TSCA Inventory Status:** Included
**SARA Title III Section 302/304:** Not subject to reporting
**SARA Title III Section 311:** Non hazardous
**SARA Title III Section 313 and 40 CFR 372:** Not subject to reporting requirements
**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.

**States Right to Know Regulations**

Connecticut
Florida
Illinois
Michigan
Louisiana
Massachusetts
New Jersey
Pennsylvania
Rhode Island

**Canada**

**Domestic Substances List:** Listed
**WHMIS Classification:** Not controlled

**International Inventories:**

Australia (AICS)
Europe (EINECS)
Japan (ENCS)

## SECTION 16 OTHER INFORMATION

**Recommended Use:** Heat transfer agent

**Date of Revision:** June 14, 2013 **Reason for Revision**: Updated raw materials.

**NFPA RATINGS:** Health: 1 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 |
| NFPA | - | Nat'l Fire Protection Association | DOT | - | Department of Transportation |
| < | - | 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).