

Material Safety Data Sheet



Paratherm Corporation MR™ Heat Transfer Fluid

I. PRODUCT IDENTIFICATION

Manufacturer's Name
Address
Trade Name
Revision Date
Emergency Telephone No.
Chemtrec (USA)
Chemtrec (outside USA)

Paratherm Corporation
1050 Colwell Road
Conshohocken, PA 19428 USA
Paratherm MR™
May 15, 2001
610-941-4900
800-424-9300
703-527-3887

CAS Number: Proprietary Hydrocarbon

TSCA Inventory Status:
Components Listed

NFPA Hazard Identification

Degree of Hazard	Hazard Ratings
Health: 0	0—Least
Fire: 1	1—Slight
Reactivity: 0	2—Moderate
	3—High
	4—Extreme

II. INGREDIENTS

COMPONENT NAME	HAZARDOUS IN BLEND	PERCENTAGE Min.	PERCENTAGE Max.	COMPONENT EXPOSURE LIMITS	UNITS
Hydrocarbon	No	50.00	90.00	OSHA PEL ACGIH TLV	None established None established
Hydrocarbon	No	10.00	50.00	OSHA PEL ACGIH TLV	None established None established

III. HEALTH EFFECT INFORMATION

ACUTE EFFECTS

EYE CONTACT

May cause mild irritation on direct contact.

SKIN CONTACT

Paratherm MR is not expected to cause any skin irritation upon direct single or repeated and prolonged contact.

INHALATION

Caution should be taken to prevent aerosolization or misting.

INGESTION

Ingestion is non-toxic unless aspiration occurs. See Chronic Effects.

CHRONIC EFFECTS

On rare occasions, prolonged and repeated exposure to oil mist poses a risk of pulmonary disease such as chronic lung inflammation. This condition is usually asymptomatic as a result of repeated small aspirations. Shortness of breath and cough are the most common symptoms. Aspiration may lead to chemical pneumonitis which is characterized by pulmonary edema and hemorrhage, and may be fatal. Signs of lung involvement include increased respiration rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking, and gagging are often noted at the time of aspiration. Gastrointestinal discomfort may develop, followed by vomiting, with a further risk of aspiration.

CARCINOGENICITY

NTP: No IARC: No OSHA: No

IV. EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT

If fluid is hot, treat for thermal burns and take victim to hospital immediately.

SKIN CONTACT

If fluid is hot, submerge injured area in cold water. If victim is severely burned, take to a hospital immediately.

INHALATION

Paratherm MR has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. If vapor or mist is generated

when the fluid is heated or handled, remove victim from exposure. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if it is available. If victim is unconscious, remove to fresh air and seek medical attention. **Do not use compressed oxygen in hydrocarbon atmospheres.**

INGESTION

Do not induce vomiting. Drink plenty of water. Do not give anything to an unconscious victim. Seek medical attention immediately.

V. PERSONAL HEALTH PROTECTION INFORMATION

EYE PROTECTION

Eye protection is not required under conditions of normal use. If the fluid is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

SKIN PROTECTION

No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious synthetic rubber clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. If handling hot fluid, use insulated protective clothing (boots, gloves, aprons, etc.)

RESPIRATORY PROTECTION

Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the fluid is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. **Do not use compressed oxygen in hydrocarbon atmospheres.**

VENTILATION

If vapor or mist is generated when the fluid is heated or handled, adequate ventilation in accordance with good engineering practice must be provided.

VI. FIRE PROTECTION INFORMATION

FLASH POINT (coc)	ASTM D92	300°F (149°C)
FIRE POINT (coc)	ASTM D92	325°F (163°C)
AUTOIGNITION (AIT)	ASTM E-659-78	621°F (327°C)
FLAMMABLE LIMITS IN AIR % BY VOL.	LOWER No data	UPPER No data

EXTINGUISHING MEDIA

Use dry chemical, foam, water fog, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be ineffective but can be used to cool containers exposed to heat or flame.

UNUSUAL FIRE AND EXPLOSIVE CONDITIONS

Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.

VII. REACTIVITY DATA

STABILITY (THERMAL, LIGHT, ETC.)	Stable	CONDITIONS TO AVOID	None
HAZARDOUS POLYMERIZATION	Will not occur		
INCOMPATIBILITY (MATERIALS TO AVOID)	May react with strong oxidizing agents		
HAZARDOUS DECOMPOSITION PRODUCTS	If burned, will produce carbon dioxide and carbon monoxide		

VIII. ENVIRONMENTAL PRECAUTIONS

STEPS TO BE TAKEN IF FLUID IS RELEASED OR SPILLED

Consult health effect information in Section III, Personal Health Protection Information in Section V, Fire Protection Information in Section VI, and Reactivity Data in Section VII. Notify appropriate authorities of spill. Contain spill immediately. Do not allow spill to enter sewers or water courses; remove all sources of ignition. Absorb with appropriate inert materials such as sand, clay, etc. Large spills may be picked up using vacuum pumps, shovels, buckets or other means and placed in drums or other suitable containers.

WASTE DISPOSAL METHOD

Disposal must comply with federal, state and local regulations. The fluid, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. **Caution:** If regulated solvents are used to clean up spilled fluid, the resulting waste mixture may be regulated. Department of Transportation (DOT) regulations may apply if material is spilled during transport. Waste material may be landfilled or incinerated at an approved facility. Materials should be recycled if possible. This material, as supplied, is not regulated by RCRA as hazardous waste.

IX. MISCELLANEOUS

HANDLING AND STORAGE REQUIREMENTS

Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing materials. Paratherm MR is not classified as hazardous under DOT regulations. Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 — Flammable and combustible liquids.

ADDITIONAL INFORMATION

SARA Title III: Paratherm MR is not subject to the reporting requirements of section 313 of Title III of the Superfund Amendment & Reauthorization Act of 1986, and 40 C.F.R. part 372.

WHMIS CLASSIFICATION

Not controlled.

X. TYPICAL PHYSICAL PROPERTIES

BOILING POINT	Initial: 525°F (274°C) 10% Fraction: 574°F (301°C)	PERCENT VOLATILE	Nil @ Ambient Temperature
MELTING POINT	N/A	VAPOR DENSITY (AIR=1)	exceeds 1.0
APPEARANCE	Clear Colorless	EVAPORATION RATE (EE=1)	<1.0
ODOR	Slight	TYPICAL SPECIFIC GRAVITY	0.80-0.82 @ 60°F
VAPOR PRESSURE	<0.01 mm Hg @ 70°F		

XI. SHIPPING INFORMATION

Not regulated by DOT, no placarding required.

NOTE: The information and recommendations in this literature are made in good faith and are believed to be correct as of the below date. You, the user, or specifier, should independently determine the suitability and fitness of Paratherm heat transfer fluids for use in your specific application. We warrant that the fluids conform to the specifications in Paratherm literature. Because our assistance is furnished without charge, and because we have no control over the fluid's end use or the conditions under which it will be used, we make no other warranties — expressed or implied, including the

warranties of merchantability or fitness for a particular use or purpose (recommendations in this bulletin are not intended nor should be construed as approval to infringe on any existing patent). The user's exclusive remedy, and Paratherm's sole liability is limited to refund of the purchase price or replacement of any product proven to be otherwise than as warranted. Paratherm Corporation will not be liable for incidental or consequential damages of any kind.