

SAFETY DATA SHEET

1. Identification

Identification

Product name: PARATHERM™ OR

Additional identification

Chemical name: Not available.

Recommended use and restriction on use

Recommended use: Heat Transfer Fluid

Restrictions on use: Lubricating oils; Hydraulic fluid additive

Details of the supplier of the safety data sheet

Supplier

Company Name: PARATHERM
A DIV. OF THE LUBRIZOL CORPORATION
Address: 2009 Renaissance Boulevard
King of Prussia, PA 19406
US
Telephone: 610-941-4900

Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements:

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements: Not applicable

Other hazards which do not result in GHS classification: None identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Mineral oil	8042-47-5	90 – 100%
Alkarylamine	68411-46-1	1 – 5%
Alkyl phenol derivative	31570-04-4	1 – 5%

4. First-aid measures

Ingestion:	Treat symptomatically. Get medical attention.
Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Skin Contact:	Wash with soap and water. Get medical attention if symptoms occur. Launder contaminated clothing before reuse.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

Most important symptoms/effects, acute and delayed

Symptoms:	See section 11.
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Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.
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5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	CO ₂ , Dry chemical or Foam. Water can be used to cool and protect exposed material.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.
Special protective equipment and precautions for fire-fighters	
Special fire-fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Recommend wearing self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.
Environmental Precautions:	Avoid release to the environment. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so.
Methods and material for containment and cleaning up:	Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

7. Handling and storage

Precautions for safe handling: Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid contact with eyes and prolonged or repeated contact with skin. Open container in a well ventilated area. Avoid breathing vapors. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures. Use grounding and bonding connection when transferring material. In case of spills, beware of slippery floors and surfaces.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. See section 10 for incompatible materials.

Maximum Storage Temperature: Not determined.

8. Exposure controls/personal protection

Control Parameters: Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Mineral oil	IDLH	2,500 mg/m ³	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
Mineral oil - Inhalable fraction.	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (02 2012)
Mineral oil - Mist.	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
Mineral oil - Mist.	STEL	10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
Mineral oil - Mist.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)

Appropriate engineering controls: Adequate ventilation should be provided so that exposure limits are not exceeded. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: If contact is likely, safety glasses with side shields are recommended.

Skin Protection

Hand Protection: Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Consult clothing/glove manufacturer to determine appropriate type of glove for given situation.

Other: No data available.

Respiratory Protection: Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Use disposable dust/mist mask if the recommended exposure limit is exceeded.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	No data available.
Odor:	No data available.
Odor threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	> 599.9 °F (315.5 °C)
Flash Point:	> 331 °F (166 °C) (ASTM D93 (Pensky-Martens (A and B Closed Cup)))
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	< 1 torr (21.1 °C 70.0 °F)
Vapor density:	No data available.
Relative density:	0.875 - 0.895 60.1 °F (15.6 °C)
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	40 mm ² /s (100.0 °F (37.8 °C)) 7 mm ² /s (98.89 °C (210.00 °F))

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Do not expose to excessive heat, ignition sources, or oxidizing materials.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity

Oral

Product:	Not classified for acute toxicity based on available data.
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Dermal

Product:	Not classified for acute toxicity based on available data.
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Inhalation

Product:	Vapour: ATEmix (, 4 h): > 20 mg/l.
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Skin Corrosion/Irritation:

Product:	Remarks: Not classified as a primary skin irritant. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
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Serious Eye Damage/Eye Irritation:

Product:	Remarks: Not classified as a primary eye irritant.
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Respiratory sensitization:

No data available

Skin sensitization:

Mineral oil	Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.
Alkarylamine	Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.
Alkyl phenol derivative	Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:

Mineral oil
If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Alkarylamine
If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Aspiration Hazard:

Mineral oil
Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Other effects:**Chronic Effects****Carcinogenicity:**

Product:
All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

Mineral oil
All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity:

Alkarylamine
In vitro and in vivo genetic toxicity studies were negative.

Alkyl phenol derivative
This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

Reproductive toxicity:

Alkarylamine
Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure:

Alkarylamine
Oral: Target Organ(s): Liver, Kidney

12. Ecological information**Ecotoxicity****Fish**

Mineral oil
LC 50 (Not reported, 96 h): > 10,000 mg/l

Alkarylamine
LC 50 (Zebra Fish, 4 d): > 100 mg/l

Aquatic Invertebrates

Mineral oil
EC 50 (Water flea (Daphnia magna), 2 d): > 100 mg/l

EC 50 (Water flea (Daphnia magna), 21 d): > 10 mg/l
NOEC (Water flea (Daphnia magna), 21 d): 10 mg/l

Alkarylamine

EC 50 (Water flea (Daphnia magna), 2 d): 51 mg/l
NOEC (Water Flea (Daphnia Magna), 21 d): 1.69 mg/l

Alkyl phenol derivative

EC 50 (Water flea (Daphnia magna), 1 d): 510 mg/l

Toxicity to Aquatic Plants

Mineral oil

LC 50 (Algae (Pseudokirchneriella subcapitata), 3 d): > 100 mg/l
NOEC (Algae (Pseudokirchneriella subcapitata), 3 d): > 100 mg/l

Alkarylamine

EC 50 (Green algae (Scenedesmus quadricauda), 3 d): > 100 mg/l
NOEC (Green algae (Scenedesmus quadricauda), 3 d): 10 - 100 mg/l

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available

Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

Alkarylamine

EC 50 (Sludge, 3 h): > 100 mg/l

Alkyl phenol derivative

EC 50 (Sludge, 0.6 d): > 100 mg/l

Persistence and Degradability

Biodegradation

Mineral oil

OECD TG 301 F, 31.13 %, 28 d, Not readily degradable.

Alkarylamine

OECD TG 301 B, 1 %, 28 d, Not readily degradable. (The product is not biodegradable.)

Alkyl phenol derivative

OECD TG 301 B, 4.5 %, 28 d, Not readily degradable.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Alkarylamine

Common Carp, Bioconcentration Factor (BCF): 1,730 (Read across)
Based on experimental data this material is not bioaccumulative.

Alkyl phenol derivative

Bioconcentration Factor (BCF): 4.57 (Measured)

Partition Coefficient n-octanol / water (log Kow)

Alkarylamine

Log Kow: > 5 25 °C (calculated)

Mobility:

No data available

Other adverse effects

No data available

13. Disposal considerations

- Disposal instructions:** Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.
- Contaminated Packaging:** Container packaging may exhibit hazards.

14. Transport information**DOT**

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code

None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

TSCA Section 5(a)2 Significant New Use Rule (SNURs) (40CFR 721, Subpt E)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)

None present or none present in regulated quantities.

Superfund amendments and reauthorization act of 1986 (SARA)**SARA 311 Classifications**

Not classified

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

Inventory Status**Australia (AIIC)**

All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

China (IECSC)

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACH)

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Great Britain (UK REACH)

To obtain information on the UK REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)

All components are in compliance with the Chemical Substances Control Law of Japan.

Korea (ECL)

All components are in compliance in Korea.

New Zealand (NZIoC)

All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)

All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

Switzerland (SWISS)

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)

All components of this product are listed on the Taiwan inventory.

Turkey (KKDIK)

To obtain information on the KKDIK compliance status of this product, please e-mail REACH@SDSInquiries.com.

United States (TSCA)

All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	0
Flammability	1
Physical Hazards	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 02/10/2023

Version #: 6.0

Source of information: Internal company data and other publically available resources.

Further Information: Contact supplier (see Section 1)

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