



SAFETY DATA SHEET

1. Identification

Identification

Product name: PARATHERM™ HR

Additional identification

Chemical name: Diisopropyl biphenyl

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: 31 PORTLAND ROAD
WEST CONSHOHOCKEN, PA 19428
US
Telephone: 610-941-4900

Emergency telephone number:

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

2. Hazard(s) identification

Hazard Classification

Health Hazards

Specific Target Organ Toxicity - Repeated Exposure Category 2
Aspiration Hazard Category 1

Unknown toxicity

Acute toxicity, oral 6.4 %
Acute toxicity, dermal 5.7 %
Acute toxicity, inhalation, vapor 100.0 %
Acute toxicity, inhalation, dust or mist 99.2 %

Label Elements:

Hazard Symbol:



Signal Word: Danger

Hazard Statement: May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.

Precautionary Statement:

- Prevention:** Do not breathe dust or mists. Avoid release to the environment.
- Response:** IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.
- Storage:** Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Isopropylbiphenyl	Not determined.	90 - 100%

4. First-aid measures

- General information:** Get medical advice/attention if you feel unwell.
- Ingestion:** Do NOT induce vomiting. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration. Immediately call a POISON CENTER/doctor/...
- Inhalation:** Remove exposed person to fresh air if adverse effects are observed.
- Skin Contact:** Wash with soap and water. If skin irritation occurs, get medical attention.
- 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.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: CO₂, dry chemical, foam, water spray, water fog.

Unsuitable extinguishing media: Not determined.

Specific hazards arising from the chemical: See section 10 for additional information. Water may cause splattering. Container may rupture on heating.

Special protective equipment and precautions for firefighters

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. Ventilate area if spilled in confined space or other poorly ventilated areas.

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.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not breathe dust/fume/gas/mist/vapors/spray. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid environmental contamination.

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

None of the components have assigned exposure limits.

Appropriate engineering controls: No special requirements under ordinary conditions of use and with adequate ventilation. Use material in well ventilated area only. 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: Suitable gloves can be recommended by the glove supplier.

Other:	Long sleeve shirt is recommended.
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 self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
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:	Colorless
Odor:	Characteristic
Odor threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	> 624.99 °F (329.44 °C)
Flash Point:	> 300 °F (149 °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:	< 0.008 torr (20 °C 68 °F)
Vapor density:	No data available.
Relative density:	0.945 - 0.975 68 °F (20 °C)
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	> 779 °F (415 °C)
Decomposition temperature:	No data available.
Viscosity:	10 - 16 mm ² /s (104 °F (40 °C))

Other information

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.

Dermal

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

Inhalation

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

Skin Corrosion/Irritation:

Product: Not classified as a primary skin irritant.

Serious Eye Damage/Eye Irritation:

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

Respiratory sensitization:

No data available

Skin sensitization:

No data available

Specific Target Organ Toxicity - Single Exposure:

No data available

Aspiration Hazard:

Product: May be fatal if swallowed and enters airways.

Chronic Effects

Carcinogenicity:

No data available

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):

No carcinogenic components identified

Germ Cell Mutagenicity:

No data available

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

Isopropylbiphenyl

Oral: Target Organ(s): Liver, thyroid gland

12. Ecological information

Ecotoxicity

Fish

Isopropylbiphenyl

LC 50 (Rainbow Trout, 4 d): > 8.24 mg/l

Aquatic Invertebrates

Isopropylbiphenyl

(Water Flea (Daphnia Magna), 221 h): 6.3 mg/l

EC 50 (Water Flea (Daphnia Magna), 2 d): > 4.52 mg/l

Toxicity to Aquatic Plants

Isopropylbiphenyl

LC 50 (Green algae (Selenastrum capricornutum)): > 10.10 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

No data available

Persistence and Degradability

Biodegradation

No data available

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

No data available

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. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.

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 MARPOL73/78 and the IBC Code

None known.

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. 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.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Delayed (Chronic) Health Hazard	Immediate (Acute) Health Hazards
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SARA 302 Extremely Hazardous Substance**SARA 304 Emergency Release Notification****SARA 311/312 Hazardous Chemical****SARA 313 (TRI Reporting)**

This product may contain chemical(s) regulated under the Superfund Amendments and Reauthorization Act (SARA). For additional information please contact Lubrizol Customer Assistance: America(s): AmerLZAMCustomerAssistance@Lubrizol.com ; Europe: EMEAICustomerAssistance@Lubrizol.com ; Asia: APCustomerAssistance@Lubrizol.com

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

No ingredient regulated by CA Prop 65 present.

Inventory Status

Australia (AICS)

This product contains a substance that is not listed on the Australia Inventory of Chemical Substances.

Canada (DSL/NDSL)

This product contains a substance or polymer that has been notified by Lubrizol and is restricted to import by Lubrizol Canada.

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 visit Lubrizol.com/REACH, or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.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)

This product requires notification before sale in the Philippines.

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.

United States (TSCA)

All components of this material are on the US TSCA Inventory.

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	*	1
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: 08/06/2015
Version #: 1.2
Source of information: Internal company data and other publically available resources.
Further Information: Contact supplier (see Section 1)

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