SAFETY DATA SHEET

1. Identification

Identification

Product name: **PARATHERM™ LR**

Additional identification

Chemical name: Petroleum naphtha

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

Physical Hazards

Flammable liquids	Category 3

Health Hazards

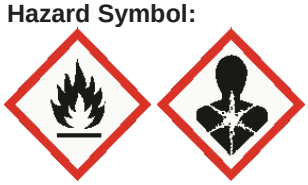
Aspiration Hazard	Category 1

Unknown toxicity

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	0.0 %
Acute toxicity, inhalation, vapor	100.0 %
Acute toxicity, inhalation, dust or mist	100.0 %

Label Elements:

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Flammable liquid and vapor.
May be fatal if swallowed and enters airways.

Precautionary Statement:

Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. In case of fire: Use CO_2, dry chemical or foam for extinction. Water can be used to cool and protect exposed material.
Storage:	Store in well-ventilated place. Keep cool. 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

General information:

Chemical name	CAS number	Percent by Weight
Petroleum naphtha	246538-78-3	80 - 90%
Alkanes, (C=9-12)-iso-	90622-57-4	20 - 30%

4. First-aid measures

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. Rinse mouth. Immediately call a POISON CENTER/doctor/…
Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Skin Contact:	Take off immediately all contaminated clothing. Take off contaminated clothing and wash before re-use. Wash with soap and water. If skin irritation occurs, get medical attention.
Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing.

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: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

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: Not determined.

Specific hazards arising from the chemical: Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations. Vapors may travel considerable distance to a source of ignition and flash back. Water may cause splattering. Container may rupture on heating. See section 10 for additional information.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

Methods and material for containment and cleaning up: Eliminate all ignition sources if safe to do so. 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. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use only non-sparking tools. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Keep cool. Store in a well-ventilated place. Do not store near potential sources of ignition.

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: Use explosion-proof ventilation equipment to stay below exposure limits.

Individual protection measures, such as personal protective equipment

General information: Use explosion-proof ventilation equipment. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

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.

Other: Wear apron or protective clothing in case of contact.

Respiratory Protection: A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Hygiene measures: Observe good industrial hygiene practices. When using do not smoke.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless to white
Odor:	Odorless
Odor threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	> 397 °F (203 °C)
Flash Point:	> 129 °F (54 °C) (ASTM D93 (Pensky-Martens (A and B Closed Cup)))
Evaporation rate:	< 1 n-butyl acetate=1
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:	> 1
Relative density:	0.76 60.01 °F (15.56 °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:	No data available.

Other information

Minimum ignition temperature:	> 500 °F (> 260 °C)

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:	Heat, sparks, flames.
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:	Causes mild skin irritation.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity

Oral

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

Dermal

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

Inhalation

Product**:** High concentrations may cause headaches, dizziness, nausea, behavioral changes, weakness, drowsiness and stupor.

Skin Corrosion/Irritation:

Product**:**	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. Remarks: Causes mild skin irritation.

Serious Eye Damage/Eye Irritation:

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

Respiratory sensitization:

No data available

Skin sensitization:

Petroleum naphtha	Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.
Alkanes, (C=9-12)-iso-	Classification: Not a skin sensitizer. (Read across) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:

Petroleum naphtha	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:

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:

Alkanes, (C=9-12)-iso-	This material has not exhibited mutagenic or genotoxic potential in laboratory tests.
Petroleum naphtha	In vitro and in vivo genetic toxicity studies were negative.

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

Alkanes, (C=9-12)-iso-	Unknown: Target Organ(s): Skin

12. Ecological information

Ecotoxicity

Fish

Petroleum naphtha	LC 50 (Rainbow Trout, 4 d): > 1,000 mg/l
Alkanes, (C=9-12)-iso-	LC 50 (Fathead Minnow, 4 d): 2,600 mg/l

Aquatic Invertebrates

Petroleum naphtha	EC 50 (Water flea (Daphnia magna), 2 d): > 1,000 mg/l EC 50 (Water flea (Daphnia magna), 21 d): > 1 mg/l NOEC (Water flea (Daphnia magna), 21 d): > 1 mg/l
Alkanes, (C=9-12)-iso-	EC 50 (Not reported, 4 d): 1,000 mg/l

Toxicity to Aquatic Plants

Petroleum naphtha	EC 50 (Green algae (Selenastrum capricornutum), 3 d): > 1,000 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

Petroleum naphtha	OECD TG 301 F, 31.3 %, 28 d, Not readily degradable.
Alkanes, (C=9-12)-iso-	OECD TG 301 F, 21.9 %, 28 d, Not readily degradable.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

Alkanes, (C=9-12)-iso-	Log Kow: 4.9 (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. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.

Contaminated Packaging: Container packaging may exhibit hazards.

14. Transport information

DOT

UN Number:	NA 1993
UN Proper Shipping Name:	Combustible liquid, n.o.s.
Transport Hazard Class(es)	
Class:	CBL
Label(s):	NONE
Packing Group:	III
Marine Pollutant:	No
Special precautions for user:	None established

IMDG

UN Number:	UN 1268
UN Proper Shipping Name:	PETROLEUM DISTILLATES, N.O.S.
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-E
Packing Group:	III
Marine Pollutant:	No
Limited quantity	5.00L
Excepted quantity	E1
Special precautions for user:	None established

IATA

UN Number:	UN 1268
Proper Shipping Name:	Petroleum distillates, n.o.s.
Transport Hazard Class(es):	
Class:	3
Label(s):	3
Marine Pollutant:	No
Packing Group:	III
Limited quantity	10.00L
Excepted quantity	E1
Environmental Hazards	Not regulated.
Special precautions for user:	None established
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

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

Fire

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

Canada (DSL/NDSL)
All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

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)
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.

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

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:	08/04/2015
Version #:	1.1
Source of information:	Internal company data and other publically available resources.
Further Information:	Contact supplier (see Section 1)
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