SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: **EMKARATE™ RL 46H**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Not determined.
Uses advised against: Not determined.

1.3 Details of the supplier of the safety data sheet

Supplier

Company Name: LUBRIZOL LIMITED
THE KNOWLE, NETHER LANE
Address: THE KNOWLE, NETHER LANE
HAZELWOOD, DERBYSHIRE, DE56 4AN
GB
Telephone: (44) 01332-842211
E-mail contact: EUSDS@lubrizol.com (Lubrizol Safety Data Sheets can be obtained at www.mylubrizol.com)

1.4 Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1) 703 527 3887 (LUBRIZOL)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

This product does not meet the classification requirements of the current European legislation.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC as amended.

Not classified

2.2 Label elements according to Regulation (EC) No 1272/2008 as amended

not applicable

2.3 Other hazards: None identified.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Regulation No. 1272/2008.

This material has no known hazards under applicable laws.

Directive 67/548/EEC.

This material has no known hazards under applicable laws.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Remove exposed person to fresh air if adverse effects are observed.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses.

Skin Contact: Wash with soap and water. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.

Ingestion: Treat symptomatically. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed: See section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No data available.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

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

5.1 Extinguishing media

Suitable extinguishing media: CO2, 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.

5.2 Special hazards arising from the substance or mixture: 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.

5.3 Advice for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Recommend wearing self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 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.

6.2 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.

6.3 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.

6.4 Reference to other sections: See sections 8 and 13 for additional information.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.
Keep containers closed when not in use. Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Avoid contact with eyes, skin and clothing. Empty container contains product residue which may exhibit hazards of product.

Maximum Handling Temperature: Not determined.

7.2 Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Keep in original container. See section 10 for incompatible materials.

Maximum Storage Temperature: Not determined.

7.3 Specific end use(s): End uses are listed in an attached exposure scenario when one is required.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

8.2 Exposure controls

Appropriate engineering controls: Adequate ventilation should be provided so that exposure limits are not exceeded.

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: Neoprene. Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.

Other: Long sleeve shirt is recommended. Wear apron or protective clothing in case of contact.

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 respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. 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.
Environmental Controls:	No data available. See section 6 for details.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Colorless to yellow
Odor:	Mild
Odor Threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	260 °C (Cleveland Open 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.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Relative density:	0.977 (20 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	410 °C
Decomposition Temperature:	No data available.
Viscosity:	46 mm2/s (40 °C); 7.1 mm2/s (100 °C)
Explosive properties:	No data available.
Oxidizing properties:	No data available.
VOC Content:	No data available.
Other information	
Pour Point Temperature:	-48 °C

SECTION 10: Stability and reactivity

10.1 Reactivity:	No data available.
10.2 Chemical Stability:	Material is stable under normal conditions.

10.3 Possibility of Hazardous Reactions: Will not occur.

10.4 Conditions to Avoid: Do not expose to excessive heat, ignition sources, or oxidizing materials.

10.5 Incompatible Materials: Strong acids Strong bases. Strong oxidizing agents.

10.6 Hazardous Decomposition Products: Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

SECTION 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.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product**:** Not classified for acute toxicity based on available data.
Ingestion of this material may cause gastric disturbances.

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**:** 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: 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:

No data available

Chronic Effects

Carcinogenicity:

No data available

Germ Cell Mutagenicity:

No data available

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

No data available

SECTION 12: Ecological information

12.1 Ecotoxicity

Fish

Product: LC 50 (Not reported, 4 d): > 10,000 mg/l

Aquatic Invertebrates

Product: EC 50 (Water flea (Daphnia magna), 2 d): > 1,000 mg/l

Toxicity to Aquatic Plants

Product: EC 50 (Green algae (Selenastrum capricornutum), 4 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

Product: EC 50 (Sludge, 0.1 d): > 10,000 mg/l

12.2 Persistence and Degradability

Biodegradation

Product: Carbon dioxide generation 74.07 % (28 d, OECD TG 301 B)

BOD/COD Ratio

No data available

12.3 Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

No data available

12.4 Mobility:

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other Adverse Effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods: 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.

SECTION 14: Transport information

ADR
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not applicable.

For 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.

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.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.:

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.

15.2 Chemical safety assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Key literature references and sources for data: Internal company data and other publically available resources.

Wording of the R-phrases and H-statements in section 2 and 3: none

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