

SAFETY DATA SHEET

1. Identification	
Identification Product name:	EMKARATE(TM) RL100H
Additional identification Chemical name:	Mixture
Recommended use and restricti	ion on use
Recommended use: Restrictions on use:	Not determined. Not determined.
Details of the supplier of the sat Supplier	-
	PI FLUID ENGINEERING DIV. OF THE LUBRIZOL CORPORATION
Address: 23 M	300 JAMES SAVAGE ROAD IDLAND, MI 48642
US Telephone: 98	5 39-496-3780
Emergency telephone number: FOR TRANSPORT EMERGENCY (LUBRIZOL)	Y 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 Statement:	not applicable
Other hazards which do not res in GHS classification:	ult None identified.
3. Composition/information or	n ingredients
General information:	The components are not hazardous or are below required disclosure limits.
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. 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/effect	ts, 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) exting	uishing media
Suitable extinguishing media:	CO2, dry chemical, foam, water spray, water fog.
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 an Special fire fighting procedures:	nd precautions for firefighters 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.
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. 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.
7. Handling and storage	
Precautions for safe handling:	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:	Store away from incompatible materials. See section 10 for incompatible materials.
Maximum Storage Temperature:	Not determined.
8. Exposure controls/persona	I protection
Control Parameters:	
Occupational Exposure Limits None of the components ha	s ave assigned exposure limits.
Appropriate engineering controls:	No special requirements under ordinary conditions of use and with adequate ventilation.
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:	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.
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

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:	511 °F (266 °C) (Cleveland Open Cup)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.



Upper/lower limit on flammability or explosive limits

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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:	No data available.
Vapor density:	No data available.
Relative density:	0.965 68 °F (20 °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:	100 mm2/s (104 °F (40 °C)) 12.5 mm2/s (100 °C (212 °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. Strong acids. Strong bases.
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 efformation on toxicological efformation on toxicity	ects
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:	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 - S	ingle Exposure: No data available
Aspiration Hazard:	No data available
Chronic Effects Carcinogenicity:	No data available
IARC Monographs on the Evaluati No carcinogenic components identifi	on of Carcinogenic Risks to Humans: ed
US. National Toxicology Program No carcinogenic components identifi	
US. OSHA Specifically Regulated No carcinogenic components identifi	Substances (29 CFR 1910.1001-1050): ed
Germ Cell Mutagenicity:	No data available
Reproductive toxicity:	No data available
Specific Target Organ Toxicity - R	Repeated Exposure: No data available
12. Ecological information	
Ecotoxicity Fish	No data available
Aquatic Invertebrates	No data available
Toxicity to Aquatic Plants	No data available



Toxicity to soil dwelling or	ganisms No data available
Sediment Toxicity	No data available
Toxicity to Terrestrial Plan	ts No data available
Toxicity to Above-Ground	Organisms No data available
Toxicity to microorganism	s No data available
Persistence and Degradability Biodegradation	No data available
Bioaccumulative Potential Bioconcentration Factor (E	3CF) No data available
Partition Coefficient n-octa	anol / 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. 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.

ΙΑΤΑ

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 None known.

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)

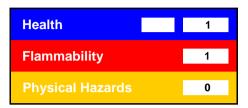
All components of this material are on the US TSCA Inventory.



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

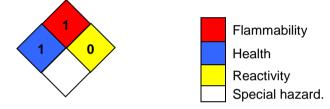
16.Other information, including date of preparation or last revision

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:	03/08/2015
Version #:	1.0
Source of information:	Internal company data and other publically available resources.
Further Information:	Contact supplier (see Section 1)
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