

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product identifier

Product name: EMKARATE™ RL 32-3MAF

Additional identification

Chemical name: Mixture

Recommended use and restriction on use

Recommended use: Refrigeration Lubricants.

Restrictions on use: None identified.

Details of the supplier of the safety data sheet

Supplier

Company Name: LUBRIZOL INTERNATIONAL, INC.

Address: 28 RIVER STREET
SILVERWATER NSW, 2128
AU

Telephone: TEL: (02) 9741-5200

Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1) 703 527 3887 OR WITHIN AUSTRALIA
(02) 9037 2994

2. Hazard(s) identification

GHS classification of substance or mixture, and national or regional information:

Not classified

GHS label elements

Hazard symbol(s): No symbol

Signal Word: Not applicable

Hazard Statement(s): Not applicable

Precautionary statement(s): Not applicable

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

3. Composition/Information on Ingredients

Mixtures

Composition Comments: The components are not hazardous or are below required disclosure limits.

4. First aid measures

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. Wash with soap and water. If skin irritation occurs, get medical attention.

Ingestion: Treat symptomatically. Get medical attention.

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

Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

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

Extinguishing media

Suitable extinguishing media: CO₂, Dry chemical or Foam. Water can be used to cool and protect exposed material. 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 hazard arising from the chemical: See section 10 for additional information. Keep away from heat, sparks and open flame. Water may cause splattering. Container may rupture on heating.

Advice for firefighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Recommend wearing self-contained breathing apparatus.

Hazchem Code: None.

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

7. Handling and Storage:

Precautions for safe handling:	Keep away from ignition sources such as heat, sparks and open flame. No smoking. Keep containers closed when not in use. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.
Maximum Handling Temperature:	70 °C
Conditions for safe storage, including any incompatibilities:	Store away from incompatible materials. See section 10 for incompatible materials.
Maximum Storage Temperature:	45 °C

8. Exposure Controls/Personal Protection

Control Parameters:

Occupational Exposure Limits

None of the components have assigned exposure limits.

Other exposure limits

Chemical name	Type	Exposure Limit Values	Source
Pentanoic acid, 2,2-bis[[1-(1-oxopentyl)oxy]methyl]-1,3-propanediyl ester	TWA	5 mg/m ³	

Exposure controls

Appropriate engineering controls: 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: Rubber (natural, latex). Polyvinyl chloride (PVC). Nitrile.

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

Respiratory Protection: Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. 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 an organic vapor cartridge if 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

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: Not applicable

Freezing point: No data available.

Boiling Point No data available.

Flash Point: 230 °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.

Relative vapor density No data available.

Relative density	0.984 (20 °C)
Solubility(ies)	
Solubility in Water:	Slightly Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	31.2 mm ² /s (40 °C); 5.6 mm ² /s (100 °C)
Explosive properties:	No data available.
Oxidizing properties:	No data available.
Pour Point Temperature:	-56 °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:	Do not expose to excessive heat, ignition sources, or oxidizing materials.
Incompatible Materials:	Strong oxidizing agents. Strong acids. Oxidizing agents. 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 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: Remarks: Not classified as a primary skin irritant. Prolonged or repeated contact may cause irritation.

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:

Product:

No data available

Aspiration Hazard:

No data available

Other effects:

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

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

12. Ecological Information

Ecotoxicity

Fish

No data available

Aquatic Invertebrates

No data available

Toxicity to Aquatic Plants	No data available
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. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Contaminated Packaging:	Container packaging may exhibit hazards.

14. Transport Information

ADG
Not regulated.

IATA
Not regulated.

IMDG

Not regulated.

Transport in bulk according to Annex II of MARPOL 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. 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.

15. Regulatory Information**Inventory Status****Australia (AICC)**

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

Canada (DSL/NDL)

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.

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

Poison Schedule Number: Poisons schedule number not allocated

16. Other Information

Key literature references and sources for data: No data available.

Other information: Contact supplier (see Section 1)

Revision(s) are noted by the double bar in the margin and the light gray box.

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