

# SAFETY DATA SHEET

## 1. Identification

### Identification

**Product name:** EMKARATE (TM) RL 220H PLUS

### Additional identification

**Chemical name:** Carboxylic ester

### Recommended use and restriction on use

**Recommended use:** Not determined.

**Restrictions on use:** Not determined.

### Details of the supplier of the safety data sheet

#### Supplier

**Company Name:** CPI FLUID ENGINEERING  
A DIV. OF THE LUBRIZOL CORPORATION  
**Address:** 2300 JAMES SAVAGE ROAD  
MIDLAND, MI 48642  
US  
**Telephone:** 989-496-3780

### 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

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 result in GHS classification:** None identified.

## 3. Composition/information on ingredients

**General information:** The components are not hazardous or are below required disclosure limits.

## 4. First-aid measures

**Ingestion:** Rinse mouth. Get medical attention if symptoms occur.

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

**Skin Contact:** 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:** No unusual fire or explosion hazards noted.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** CO<sub>2</sub>, Dry chemical or Foam. Water can be used to cool and protect exposed material. CO<sub>2</sub>, 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. 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. 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.

<b>Maximum Handling Temperature:</b>	Not determined.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store away from incompatible materials. See section 10 for incompatible materials.
<b>Maximum Storage Temperature:</b>	Not determined.

## 8. Exposure controls/personal protection

### Control Parameters:

#### Occupational Exposure Limits

None of the components have assigned exposure limits.

#### 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. 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:

Use nitrile or neoprene gloves. Suitable gloves can be recommended by the glove supplier.

##### Other:

Long sleeve shirt is recommended. Do not wear rings, watches or similar apparel that could entrap the material.

#### 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. 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.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Light yellow

<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling Point:</b>	212 °F (100 °C)
<b>Flash Point:</b>	> 451 °F (233 °C) (Cleveland Open Cup)
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	< 0.01 kPa (20 °C 68 °F)
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	1 - 1.05 68 °F (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Slightly Soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	> 752 °F (400 °C)
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	220 mm <sup>2</sup> /s ( 104 °F (40 °C) ) 19 mm <sup>2</sup> /s (100 °C (212 °F) )
<b>Other information</b>	
<b>Pour Point Temperature:</b>	-17 °F (-27 °C)

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	Will not occur.
<b>Conditions to Avoid:</b>	Do not expose to excessive heat, ignition sources, or oxidizing materials.
<b>Incompatible Materials:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	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

<b>Inhalation:</b>	No data available.
<b>Ingestion:</b>	No data available.
<b>Skin Contact:</b>	Causes mild skin irritation.

**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity**

**Oral**

Product: Not classified for acute toxicity based on available data.  
May cause irritation of the gastrointestinal tract.

**Dermal**

Product: Not classified for acute toxicity based on available data.  
Prolonged or widespread contact with this material could result in the absorption of potentially harmful amounts.

**Inhalation**

No data available

**Skin Corrosion/Irritation:**

Product: 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:**

No data available

**Specific Target Organ Toxicity - Single Exposure:**

No data available

**Aspiration Hazard:**

No data available

**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:**

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 K<sub>ow</sub>)

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**

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](http://Lubrizol.com/REACH), or e-mail us at [REACH\\_MSDS\\_INQUIRIES@Lubrizol.com](mailto: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)**

This product requires notification before sale in Switzerland.

**Taiwan (TCSCA)**

This product requires notification before sale in Taiwan.

**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.*

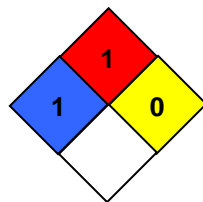
**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	1
<b>Flammability</b>	1
<b>Physical Hazards</b>	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

<b>Issue Date:</b>	03/07/2015
<b>Version #:</b>	1.0
<b>Source of information:</b>	Internal company data and other publically available resources.
<b>Further Information:</b>	Contact supplier (see Section 1)
<b>Disclaimer:</b>	As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.