



Prepared according to Commission Regulation (EU) No 453/2010.

<b>Section 1</b>	<b>Identification of substance/mixture and of the company/undertaking</b>
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#### 1.1 Product Identifier

### EMKARATE(TM) RL 220H

**Synonyms** None.

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

**Relevant identified uses (see section 7.3 for information on REACH registered uses)**

Refrigeration Lubricants.

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

CPI Engineering Services  
2300 James Savage Rd.  
Midland, MI 48642  
Phone: 989-496-3780  
Fax: 989-496-0316

**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 (outside the U.S.), 1-800-424-9300 (in the U.S.)

<b>Section 2</b>	<b>Hazards Identification</b>
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#### 2.1 Classification of the substance or mixture

(EC) No 1272/2008

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

67/548/EC or 1999/45/EC

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

**For a full text of R- and H- phrases: See section 16**

#### 2.2 Label elements

(EC) No 1272/2008

Not applicable.

#### Supplemental label information

None.

#### 2.3 Other hazards

None identified.

<b>Section 3</b>	<b>Composition/Information on Ingredients</b>
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#### 3.2 Mixtures

(EC) No 1272/2008

This material contains no ingredients requiring disclosure under regulatory hazard criteria for this jurisdiction. See Section 11 for additional details.

67/548/EC or 1999/45/EC

This material has no known hazards under applicable laws.

*600, 700, 800 and 900 ECHA List Numbers do not have any legal significance; rather they are purely technical identifiers and are displayed for informational purposes only.*

<b>Section 4</b>	<b>First Aid Measures</b>
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#### 4.1 Description of first aid measures

##### Skin

Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

##### Eyes

Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.

**Inhaled**

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

**Swallowed**

DO NOT INDUCE VOMITING. Get immediate medical attention.

**Advice for first-aid providers**

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

**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**

Note to physician: Treat symptomatically.

<b>Section 5</b>	<b>Fire Fighting Measures</b>
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**5.1 Extinguishing Media**

CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.

**5.2 Special hazards arising from substance or mixture**

See section 10 for additional information.

**5.3 Advice for firefighters**

Recommend wearing self-contained breathing apparatus.

<b>Section 6</b>	<b>Accidental Release Measures</b>
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**6.1 Personal precautions, protective equipment and emergency procedures**

Personal protective equipment must be worn. Ventilate area if spilled in a confined space or other poorly ventilated area.

**6.2 Environmental precautions**

Prevent entry into sewers and waterways.

**6.3 Methods and material for containment and cleaning up**

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.

<b>Section 7</b>	<b>Handling and Storage</b>
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**7.1 Precautions for safe handling**

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. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

**Pumping Temperature**

Not determined.

**Maximum Handling Temperature**

Not determined.

**Maximum Loading Temperature**

Not determined.

**7.2 Conditions for safe storage, including any incompatibilities**

No special storage precautions required.

**Maximum Storage Temperature**

Not determined.

**7.3 Specific end use(s)**

End uses are listed in an attached exposure scenario when one is required.

<b>Section 8</b>	<b>Exposure Controls/Personal Protection</b>
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**8.1 Control parameters**

None known.

**Other Exposure Limits**

None known.

**8.2 Exposure controls**

Use with adequate ventilation.

**Eye/face protection**

Safety Glasses.

**Skin protection**

Use nitrile or neoprene gloves.

Long sleeve shirt is recommended. Launder contaminated clothing before reuse.

**Respiratory Protection**

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**

Wash thoroughly after handling this product.

**Environmental exposure controls**

See section 6 for details.

Section 9	Physical and Chemical Properties
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**9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	Clear to yellow liquid.
<b>Odour</b>	Mild
<b>Odour Threshold</b>	Not determined.
<b>pH</b>	Not determined.
<b>Melting / Freezing Point</b>	Not determined.
<b>Boiling Point</b>	Not determined.
<b>Boiling Point Range</b>	Not determined.
<b>Flash Point</b>	280 °C, 536 °F COC (Typical)
<b>Evaporation Rate</b>	Not determined.
<b>Flammability (solid,gas)</b>	Not applicable.
<b>Lower flammability or explosive limit</b>	Not determined.
<b>Upper flammability or explosive limit</b>	Not determined.
<b>Vapour Pressure</b>	Not determined.
<b>Vapour Density</b>	Not determined.
<b>Relative density</b>	0.98 (20 °C)
<b>Bulk Density</b>	Not determined.
<b>Water Solubility</b>	Insoluble.
<b>Other solubilities</b>	Not determined.
<b>Partition coefficient: n-octanol/water</b>	Not determined.
<b>Autoignition Point</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	230 Centistokes (40 °C) 19.5 Centistokes (100 °C)
<b>Explosive properties</b>	Material does not have explosive properties.
<b>Oxidising properties</b>	Material is a non-oxidising substance.

**9.2 Other information**

*The above data are typical values and do not constitute a specification.*

Section 10	Stability and Reactivity
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**10.1 Reactivity**

Carefully review all information provided in sections 10.2 - 10.6.

**10.2 Chemical stability**

Material is normally stable at moderately elevated temperatures and pressures.

**10.3 Possibility of hazardous reactions**

Will not occur.

**10.4 Conditions to avoid**

Not determined.

**10.5 Incompatible materials**

None known, avoid contact with reactive chemicals.

**10.6 Hazardous decomposition products**

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

<b>Section 11</b>	<b>Toxicological Information</b>
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**11.1 Information on toxicological effects****Acute toxicity****Oral**

The LD50 in rats is > 2000 mg/Kg. Based on data from components or similar materials.

**Dermal**

The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

**Inhalation**

No data available to indicate product or components may be a toxic inhalation hazard.

**Skin corrosion / irritation**

Not expected to be a primary skin irritant. Based on data from components or similar materials.

**Serious eye damage / irritation**

Not expected to cause eye irritation. Based on data from components or similar materials.

**Respiratory Irritation**

No data available to indicate product or components may cause respiratory irritation under normal workplace conditions and good industrial hygiene practices.

**Respiratory or skin sensitization****Skin**

No data available to indicate product or components may be a skin sensitizer.

**Respiratory**

No data available to indicate product or components may be respiratory sensitizers.

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

**Reproductive Toxicity**

No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

**STOT repeated exposure**

No data available to indicate product or components present at greater than 1% are chronic health hazards.

**Other information**

No other health hazards known.

<b>Section 12</b>	<b>Ecological Information</b>
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**12.1 Toxicity****Freshwater fish**

Not determined.

**Freshwater invertebrates**

Not determined.

**Algae**

Not determined.

**Saltwater fish**

Not determined.

**Saltwater invertebrates**

Not determined.

**Bacteria**

Not determined.

**12.2 Persistence and degradability**

Not applicable.

**12.3 Bioaccumulative potential**

Not applicable.

**12.4 Mobility in soil**

Not applicable.

**12.5 Results of PBT and vPvB assessment**

Not Available

**12.6 Other adverse effects**

None known.

<b>Section 13</b>	<b>Disposal Considerations</b>
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**13.1 Waste treatment methods**

All disposal practices must be in accordance with local, regional, national and international regulations.

Dispose of packaging or containers in accordance with local, regional and international regulations.

<b>Section 14</b>	<b>Transport Information</b>
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**14.1 UN number**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.2 UN proper shipping name**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.3 Transport hazard class(es)**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.4 Packing group**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.5 Environmental hazards**

<b>ADR/RID</b>	Not applicable.
<b>ICAO</b>	Not applicable.
<b>IMDG</b>	Not applicable.

**14.6 Special precautions for users**

Review classification requirements before shipping materials at elevated temperatures.

**14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code**

Not determined.

<b>Section 15</b>	<b>Regulatory Information</b>
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**15.1 Safety, health and environment regulations / legislation specific for the substance or mixture****Global Chemical Inventories**

<b>Australia</b>	All components are in compliance with chemical notification requirements in Australia.
<b>Canada</b>	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
<b>China</b>	All components of this product are listed on the Inventory of Existing Chemical Substances in China.
<b>EU</b>	To obtain information on the REACH compliance status of this product, please visit <a href="http://Lubrizol.com/REACH">Lubrizol.com/REACH</a> , or e-mail us at <a href="mailto:REACH_MSDS_INQUIRIES@Lubrizol.com">REACH_MSDS_INQUIRIES@Lubrizol.com</a>
<b>Japan</b>	All components are in compliance with the Chemical Substances Control Law of Japan.
<b>Korea</b>	All components are in compliance in Korea.
<b>New Zealand</b>	All components are in compliance with chemical notification requirements in New Zealand.
<b>Philippines</b>	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
<b>Switzerland</b>	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
<b>Taiwan</b>	All components of this product are listed on the Taiwan inventory.
<b>USA</b>	All components of this material are on the US TSCA Inventory or are exempt.

**German water hazard classes**

WGK =1 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

**15.2 Chemical safety assessment**

No chemical safety assessment has been carried out.

Section 16	Other Information
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**Created by**

Product Safety and Compliance Department (440-943-1200)

**Created Date**

12 July 2011

**Revision date**

24 September 2013

**SDS No.**

23698877-2327999-0092311-102103

**HMIS Codes**

Health	Fire	Reactivity
1	1	0

**Relevant R Phrases**

Not applicable.

**Relevant hazard phrases**

Not determined.

**Revision Indicators**

Section: 1 Product type.

Changed: 12 November 2012

Section: 15 Canada.

Changed: 24 September 2013

Section: 15 WGK.

Changed: 22 July 2013

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