



Prepared according to Annex II of EC Regulation 1907/2006.

1	Substance/Product Identification
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Product Trade Name	EMKARATE RL 32H
Company	<i>CPI Engineering Services 2300 James Savage Rd. Midland, MI 48642 Phone: 989-496-3780 Fax: 989-496-0316</i>
E-mail contact	EUSDS@lubrizol.com
CAS Number	Not applicable for mixtures.
Synonyms	None.
Preparation/Revision Date	25 January 2010
Generic Chemical Name	Mixture.
Product Type	Refrigeration Lubricants.
Emergency Phone Number	FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
MSDS No.	19564162-3922021-202031-102103

2	Hazards Identification
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Symbol(s)	Not applicable.
Product Classification	Not applicable.

3	Composition/Information on Ingredients
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Hazardous Ingredients

This material has no known hazards under applicable laws.

4	First Aid Measures
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Ingestion	DO NOT INDUCE VOMITING. Get immediate medical attention.
Eyes	Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.
Skin	Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
Inhalation	Remove exposed person to fresh air if adverse effects are observed.
Additional Information	Note to physician: Treat symptomatically.

5	Fire Fighting Measures
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Flash Point	249 °C, 480.2 °F COC (Typical)
Extinguishing Media	CO ₂ , dry chemical, or foam. Water can be used to cool and protect exposed material.
Firefighting Procedures	Recommend wearing self-contained breathing apparatus.
Unusual Fire & Explosion Hazards	None known.

6	Accidental Release Measures
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Spill 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. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.
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7	Handling and Storage
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Pumping Temperature	Not determined.
Maximum Handling Temperature	Not determined.
Handling Procedures	Keep containers closed when not in use. Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Wash thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.
Maximum Storage Temperature	Not determined.
Storage Procedures	Keep only in original container.

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Loading Temperature

Not determined.

8	Exposure Controls/Personal Protection
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Exposure Limits

EU
Not applicable.

UK
Not applicable.

Ireland
Not applicable.

India
Not applicable.

Cyprus
Not applicable.

Other Exposure Limits

None known.

Engineering Controls

Use with adequate ventilation.

Hand Protection

Neoprene.

Eye Protection

Safety Glasses.

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.

Clothing Recommendation

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

9	Physical and Chemical Properties
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Flash Point

249 °C, 480.2 °F COC (Typical)

Upper Flammable Limit

Not determined.

Lower Flammable Limit

Not determined.

Autoignition Point

Not determined.

Explosion Data

Material does not have explosive properties.

Vapour Pressure

Not determined.

pH

Not determined.

Specific Gravity

0.98 (20 °C)

Bulk Density

Not determined.

Water Solubility

Insoluble.

Percent Solid

Not determined.

Percent Volatile

Not determined.

Volatile Organic Compound

Not determined.

Vapour Density

Not determined.

Evaporation Rate

Not determined.

Odour

Mild

Appearance

Clear to yellow liquid.

Viscosity

33.7 Centistokes (40 °C)
5.9 Centistokes (100 °C)

Odour Threshold

Not determined.

Boiling Point

Not determined.

Pour Point Temperature

~ -46 °C, ~ -51 °F

Melting / Freezing Point

Not determined.

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

10	Stability and Reactivity
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Stability

Material is normally stable at moderately elevated temperatures and pressures.

Decomposition Temperature

Not determined.

Incompatibility

Strong acids. Strong bases. Strong oxidizing agents.

Polymerization

Will not occur.

Thermal Decomposition

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

-- ACUTE EXPOSURE --

Eye Irritation	Not expected to cause eye irritation. Based on data from components or similar materials.
Skin Irritation	Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated contact may cause skin discomfort or mild irritation.
Respiratory Irritation	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity	No data available to indicate product or components may be a toxic inhalation hazard.
Oral Toxicity	The LD50 in rats is > 5000 mg/Kg. Based on data from components or similar materials. Ingestion of this material may cause gastrointestinal irritation.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	No data available to indicate product or components present at greater than 1% are chronic health hazards.
Carcinogenicity	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.
Other	No other health hazards known.

-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	The acute LC50 is > 1000 mg/L based on similar materials.
Freshwater Invertebrates Toxicity	The acute EC50 is > 1000 mg/L based on similar materials.
Algae Toxicity	The acute EC50 is > 1000 mg/L based on similar materials.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	The acute EC50 is > 1000 ppm based on similar materials.
Miscellaneous Toxicity	Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation	This product will biodegrade rapidly based on OECD 301-type test data for similar products. Meets ready biodegradation criteria.
Bioaccumulation	Less than 1.0% of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.
WGK	WGK = 2 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

Waste Disposal	This material, if discarded, should not be considered a European hazardous waste.
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ICAO/IATA II	Not regulated
IMDG	Not regulated
IMDG EMS Fire	Not applicable.
IMDG EMS Spill	Not applicable.
IMDG MFAG	Not applicable.
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.
ADR/RID	Not regulated
ADR/RID Hazard ID No.	Not applicable.
South Africa	Not regulated

Review classification requirements before shipping materials at elevated temperatures.

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Symbol(s) Not applicable.
Indication of Danger Not applicable.
Precautionary Labels Not applicable.
Other Label Information None.

-- Global Chemical Inventories --

USA All components of this material are on the US TSCA Inventory or are exempt.
EU All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
Japan All components are in compliance with the Chemical Substances Control Law of Japan.
Australia All components are in compliance with chemical notification requirements in Australia.
New Zealand All components are in compliance with chemical notification requirements in New Zealand.
Canada This material contains a component that has been notified to Environmental Canada and is eligible for addition to the Domestic Substances List (DSL).
Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
Korea All components are in compliance in Korea.
Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
China All components of this product are listed on the Inventory of Existing Chemical Substances in China.

-- Product Registrations --

Finnish Registration Number Not Registered
Swedish Registration Number Not Registered
Norwegian Registration Number Not Registered
Danish Registration Number Not Registered
Swiss Registration Number Not Registered
Italian Registration Number Not Registered

-- Other / International --

Miscellaneous Regulatory Information Not determined.

16	Other Information
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HMIS Codes

Health	Fire	Reactivity
0	1	0

Relevant R Phrases

Not applicable.

Revision Indicators

Section	Changed
1 Cas registry number.	20 January 2010
1 Generic /chemical name.	20 January 2010
5 Flash point.	25 January 2010
5 Flash point.	25 January 2010
5 Unusual fire& explosion hazards.	20 January 2010
7 Handling procedures.	5 January 2010
9 Appearance.	20 January 2010
9 Flash point.	25 January 2010
9 Flash point.	25 January 2010
9 Specific gravity.	30 November 2009
11 Dermal toxicity.	5 January 2010
11 Oral toxicity.	5 January 2010
11 Skin irritation.	5 January 2010
12 Bioconcentration	20 January 2010
12 WGK.	20 January 2010
15 Canada.	20 January 2010
15 EU EINECS.	30 November 2009
15 New Zealand	20 January 2010

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