

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

1	Substance/Product Identification
Product Trade Name	EMKARATE RL 46H
Company	CPI Engineering Services 2300 James Savage Rd. Midland, MI 48642 Phone: 989-496-3780 Fax: 989-496-0316
E-mail contact	EUSDS@lubrizol.com
CAS Number	Not applicable for mixtures.
Synonyms	None.
Preparation/Revision Date	20 January 2010
Generic Chemical Name	Mixture.
Product Type	Multipurpose.
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.	19558294-3224611-3032011-102103
2	Hazards Identification
Symbol(s)	Not applicable.
Product Classification	Not applicable.
3	Composition/Information on Ingredients

Hazardous Ingredients

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

4	First Aid Measures
Ingestion	DO NOT INDUCE VOMITING. Get immediate medical attention.
Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
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
Flash Point	260 °C, 500 °F COC (Typical)
Extinguishing Media	CO2, 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
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.
7	Handling and Storage
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. Avoid skin contact. Wash thoroughly after handling. Empty container contains product residue

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Storage Procedures Loading Temperature

Keep only in original container. Not determined.

8	Exposure Controls/Personal Protection
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
Flash Point	260 °C, 500 °F COC (Typical)
Upper Flammable Limit	Not determined.

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Upper Flammable Limit	Not determined.
Lower Flammable Limit	Not determined.
Autoignition Point	410 °C, 770 °F
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	46 Centistokes (40 °C)
	7.1 Centistokes (100 °C)
Odour Threshold	Not determined.
Boiling Point	Not determined.
Pour Point Temperature	-48 °C, -54 °F
Melting / Freezing Point	Not determined.

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

10	Stability and Reactivity		
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.		

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Toxicological Information

	ACUTE EXPOSURE
Eye Irritation	May cause eye irritation. Does not meet Canadian D2B or EU R36 criteria. Based on data from components or similar materials.
Skin Irritation	May cause slight skin irritation. Does not meet Canadian D2B or EU R38 criteria. 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.
12	Ecological Information

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

Disposal Considerations

Waste Disposal

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This material, if discarded, should not be considered a European hazardous waste.

Transport Information
Not regulated
Not regulated
Not applicable.
Not applicable.
Not applicable.
Not determined.
Not determined.
Not regulated
Not applicable.
Not regulated

Review classification requirements before shipping materials at elevated temperatures.

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Symbol(s)	NT-411			
Indication of Danger	Not applicable. Not applicable.			
Precautionary Labels	Not applicable.			
Other Label Information	Not applicable. None.			
	(Hobal Chemical Inver	ntories	
USA	•		CA 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		-	otification requirements in N	
Canada	This material contains a con Domestic Substances List		notified to Environmental Ca	nada and is eligible for addition to the
Switzerland	All components are in com	pliance with the Environ	nmentally Hazardous Substa	nces Ordinance in Switzerland.
Korea	All components are in com	pliance in Korea.		
Philippines	All components are in com 1990 (R.A. 6969).	pliance with the Philipp	bines Toxic Substances and I	Hazardous and Nuclear Wastes Control Act of
China		duct are listed on the Inv	ventory of Existing Chemica	l Substances in China.
		Product Registratio	ons	
Finnich Registration Number	Not Registered			
Finnish Registration Number Swedish Registration Number	Not Registered Not Registered			
Norwegian Registration Number	Not Registered			
Danish Registration Number	Not Registered			
Swiss Registration Number	Not Registered			
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Italian Registration Number	Not Registered			
	Not determined.	Other / Internation	nal	
Miscellaneous Regulatory Information	Not determined.	Other / Internation	nal	
16	Other Information			
Information	Other Information Health	Fire	Reactivity	
Information 16 HMIS Codes	Other Information Health 0			
Information 16 HMIS Codes Relevant R Phrases	Other Information Health	Fire 1	Reactivity	
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable.	Fire	Reactivity	Changed
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1	Fire 1 Section	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 1 Cas registry number. 1 1 Generic /chemical name. 1	Fire 1 Section	Reactivity	20 January 2010 20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 0 Not applicable. 1 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 1	Fire 1 Section	Reactivity	20 January 2010 20 January 2010 20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient	Fire 1 Section	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 8 Respiratory protection.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 7 Handling procedures. 8 8 Glove protection. 8 8 Respiratory protection. 9 9 Appearance. 9	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 7 Handling procedures. 8 8 Glove protection. 8 9 Appearance. 9 9 Specific gravity. 1	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 7 Handling procedures. 8 8 Glove protection. 9 9 Appearance. 9 9 Specific gravity. 10 10 Incompatibility. 10	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 9 9 Appearance. 9 9 Specific gravity. 10 10 Incompatibility. 11 11 Dermal toxicity. 11	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Product type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 9 9 Appearance. 9 9 Specific gravity. 10 10 Incompatibility. 11 11 Eye irritation. 11	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 1 Generic /chemical name. 1 1 Froduct type. 3 3 EU hazardous ingredient 4 Eyes first aid. 5 5 Unusual fire& explosion 7 7 Handling procedures. 8 8 Glove protection. 8 9 Appearance. 9 9 Specific gravity. 10 10 Incompatibility. 11 11 Eye irritation. 11 11 Oral toxicity. 11	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 8 Respiratory protection. 9 Specific gravity. 10 Incompatibility. 11 Dermal toxicity. 11 Cycl toxicity. 11 Oral toxicity. 11 Respiratory irritation.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 8 Respiratory protection. 9 Appearance. 9 Specific gravity. 10 Incompatibility. 11 Dermal toxicity. 11 Respiratory irritation. 11 Skin irritation.	Fire 1 Section s.	Reactivity	20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Health 0 Not applicable. 1 Cas registry number. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 9 Appearance. 9 Specific gravity. 10 Incompatibility. 11 Dermal toxicity. 11 Eye irritation. 11 Oral toxicity. 11 Respiratory irritation. 12 Bioconcentration	Fire 1 Section s.	Reactivity	20 January 2010 20 January 2010
Information 16 HMIS Codes Relevant R Phrases	Other Information Health 0 Not applicable. 1 Cas registry number. 1 Generic /chemical name. 1 Product type. 3 EU hazardous ingredient 4 Eyes first aid. 5 Unusual fire& explosion 7 Handling procedures. 8 Glove protection. 8 Respiratory protection. 9 Appearance. 9 Specific gravity. 10 Incompatibility. 11 Dermal toxicity. 11 Respiratory irritation. 11 Skin irritation.	Fire 1 Section s.	Reactivity	20 January 2010

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15 EU EINECS.

20 January 2010

EMKARATE RL 46H responsibility of the user.