MATERIAL SAFETY DATA SHEET

Revised 6/15/01
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As of 4/04/02

EMKARATE (TM) RL 32CF
UNIQEMA
MSDS ID: 37778

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION***

ICI Americas Inc.
Uniqema Corporate Center
1000 Uniqema Boulevard
New Castle, Delaware 19720-2790

ICI Operator (24 hr.): (302) 574-5000
Medical Emergency (24 hr.): (888) 456-6218
Chemical Emergency (24 hr.) Involving Transportation
Spills, Leaks, Fires, Accidents: (800) 424-9300

EMKARATE RL 32CF
General: Refrigeration Lubricant
Alternate Names:

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS***

INGREDIENTS	New Jersey TSR	% (w/w)	OSHA PEL
Polyol Ester	08306620-5803P	>99	Not listed
Additives		<1	Not listed

Ingredients not precisely identified are proprietary or nonhazardous.

SECTION 3 HAZARDS IDENTIFIED***

Emergency Overview:

Appearance: Pale yellow, clear liquid
Physical: None
Health: None

Hazard summary as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200.

Potential Health Effects:

General: This health assessment is based on a consideration of the composition of this product.

Repeated or prolonged skin contact may result in irritation. High concentrations of aerosols or mists may be slightly irritating to the

SECTION 3 HAZARDS IDENTIFIED*** (Cont.)

upper respiratory tract.

Read the entire MSDS for a thorough evaluation of the hazards.

SECTION 4 FIRST AID MEASURES***

Skin Contact: Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footware before reuse.

Eye Contact: Irrigate with eyewash solution or clean water, holding eyelids apart, for at least 10 minutes. if redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

Inhalation: Remove patient from exposure. If a cough or other respiratory symptoms develop, consult medical personnel.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water and give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel.

Note to Physician: This material is considered to be only slightly toxic. The potential complications associated with removing material from the GI tract, the amount ingested, and the time since ingestion should be taken into account when developing a treatment plan.

SECTION 5 FIRE FIGHTING MEASURES***

Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

Flammable limits (STP): No data

Extinguishing media: Carbon dioxide, dry chemical or appropriate foam. If water is used, use with care to avoid possible violent production of steam.

SECTION 5 FIRE FIGHTING MEASURES*** (Cont.)

Fire fighting equipment: Use self-contained breathing apparatus with full facepiece and protective clothing.

Flashpoint (Deg C): 254 (open cup)

Autoignition temperature (Deg C): 390

Explosive Power: None

Combustion Products: Carbon dioxide, Carbon monoxide

NFPA Hazard ID: Health: 1, Flammability: 1, Reactivity: 0,
Special Hazard: None

SECTION 6 ACCIDENTAL RELEASE MEASURES***

Wear skin protection during clean-up. Contain and absorb large spillages onto an inert, non-flammable absorbent carrier (such as earth or sand). Do not allow to enter drains, sewers, or waterways. Shovel into a chemical waste container for disposal or recovery.

SECTION 7 HANDLING AND STORAGE***

Handling: Avoid prolonged or recurring skin contact. Avoid inhalation of high concentrations of mists or aerosols.

Storage Requirements: Avoid ingress of moisture by keeping containers properly sealed when not in use. Product application requires that the product remain dry and free of excessive moisture pick-up. Keep away from strong oxidizing agents.

Suitable Containers: Mild Steel.

Storage Temperature: Ideal storage temperature is 60 to 100 deg F.

Storage Life: Two years, minimum.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION***

Exposure guidelines: No OSHA PELS or ACGIH TLVs have been assigned. Minimize exposure in accordance with good industrial hygiene practice.

Engineering controls: Provide eyewash station and safety shower in work area. Use ventilation adequate to maintain safe levels.

Respiratory protection: Not normally needed, if controls are adequate. If needed, use MSHA-NIOSH approved respirator for organic vapors.

Protective clothing: Gloves determined to be impervious under conditions of use. Depending on conditions of use, additional protection may be required, such as apron, arm covers, or full body suit. Wash contaminated clothing before rewearing.

Eye protection: Chemical tight goggles.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES***

Appearance: Pale yellow, clear liquid
Odor: Mild
Flash point (deg C): 254 (open cup)
Boiling point (deg C): >300
Vapor pressure (mm Hg at 20 deg C): 6.5
Specific gravity (20/20 deg C): 0.972
Solubility in water: Insoluble
Solubility (other): No data
Pour point (deg C): -45
Kinematic viscosity (cSt at 40 deg C): 30.8
(cSt at 100 deg C): 5.6

SECTION 10 STABILITY AND REACTIVITY***

Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: Highly unlikely under intended handling and use. See Section 5.
Combustion products: Carbon dioxide, Carbon monoxide.

SECTION 10 STABILITY AND REACTIVITY*** (Cont.)

Hazardous polymerization: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION***

Possible human health effects:

Inhalation: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors.

Skin contact: Repeated or prolonged skin contact may result in irritation. Not a skin irritant per OSHA Hazard Communication Standard, 29 CFR 1910.1200. It is unlikely to be a skin sensitizer following contact with human skin.

Eye contact: Unlikely to cause eye irritation in man.

Ingestion: Low oral toxicity.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Mutagenicity: There is no substantial evidence of mutagenic potential.

Reproductive effects: No information is available and no adverse effects are anticipated.

Teratogenicity and Fetotoxicity: No information is available and no adverse effects are anticipated.

SECTION 12 ECOLOGICAL INFORMATION***

Persistency and degradation: The product is substantially biodegradable in water.

Effects on effluent treatment: Not determined.

SECTION 13 DISPOSAL CONSIDERATIONS***

Disposal method: Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal: Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

SECTION 14 TRANSPORTATION INFORMATION***

DOT, IMO, IATA/ICAO class: Not regulated.

SECTION 15 REGULATORY INFORMATION***

OSHA classification:
Physical: Not regulated.
Health: Not regulated.

TSCA (Toxic Substances Control Act) Regulations: All ingredients are on the TSCA Chemical Substances Inventory.

CERCLA and SARA Regulations (40 CFR 355, 370, and 372): This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

Controlled Products Regulations (WHMIS) Classification: Not regulated.

IARC Classification: None of the components of this product are listed on IARC.

SECTION 16 OTHER INFORMATION***

HMIS Ratings:

Health Hazards: 1
Flammability Hazards: 1

SECTION 16 OTHER INFORMATION*** (Cont.)

Reactivity Hazards: 0
Personal Protection: See MSDS Section 8

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