

FOUR SEASONS PN 59002
ICI AMERICAS, INC. - EMKAROX (r) PAG 100

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MATERIAL SAFETY DATA SHEET

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Section 1 - PRODUCT AND COMPANY IDENTIFICATION

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Product Name: EMKAROX (R) PAG 100

MANUFACTURER:
ICI AMERICAS, INC.
3411 Silverside Rd.
Wilmington, Delaware 19810

ICI Operator (24hr.): (302) 887-3000
Medical Emergency (24 hr.): (800) 228-5635 Extension 181
Chemical Emergency (24 hr): Involving Transportation
Spills, Leaks, Fires, Accidents: (800) 424-9300

EMKARATE (R) PAG 100
General Use: Refrigeration Lubricant

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Section 2 - HAZARDOUS INGREDIENTS

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Ingredients	% w/w)	OSHA PEL
Polyoxoalkylene glycol ether plus additives including:	98.5 to 99.0	Not listed
TriCresylphosphate (Cas# 1330-78-5) (<1% ortho isomer)	1.0 to 1.5	Not listed

Ingredients not precisely identified are proprietary or nonhazardous.

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Section 3 - HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW:
Appearance: Colorless liquid with characteristic odor.
Physical Hazards*: None
Health Hazards: Mild skin irritant.

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

Potential Health Effects:

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

Repeated or prolonged skin contact may result in mild irritation.

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

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Section 4 - FIRST AID MEASURES

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

Eye Contact: Irrigate with eyewash solution or clean water, holding eyelids apart, for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

Ingestion: DO NOT induce vomiting. Never give anything 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.

Inhalation: Remove patient from exposure. If a cough or other respiratory 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 digested, 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.

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

Fire Fighting Equipment: Use self-contained breathing apparatus with full facepiece and protective clothing.

Flash Point (Deg C): 245 (COC)

Autoignition temperature: Not determined.

Flammable Limits: Not determined.

Explosive Power: None.

Combustion Products: Oxides of phosphorus and carbon

***NFPA Hazards: Health: 2, Flammability: 1, Reactivity: 1,
Special Hazard: None

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Section 6 - ACCIDENTAL RELEASE MEASURES ***

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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

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

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.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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

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

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 (neoprene). 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.

Other protective equipment: Eye-wash station and safety shower in work area.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Appearance: Colorless liquid

Odor: Characteristic

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Flash Point (deg C): 245 (COC)
Boiling Point: >200
Vapor pressure (mmHg at 20 deg C): <5
Vapor density (air 1): >1.0
Specific gravity (20/20 deg C): No Data
Density (15 deg C): 1.027
Solubility in water: Negligible
Solubility (other): No data
Pour Point (deg C): <-40
Kinematic viscosity (cSt at 40 deg C): 100

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Section 10 - STABILITY AND REACTIVITY

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Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: Highly unlikely under intended handling and use. See section 5.

Hazardous polymerization: Will not occur.

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Section 11 - TOXICOLOGICAL INFORMATION

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No toxicity information is available on this specific preparation. This health hazard assessment is based on information that is available on its components.

Possible Human Health Effects:

General: There is evidence that tricresylphosphate has produced depressed cholinesterase levels in test animals.

Inhalation: High concentrations of mist may be slightly irritant 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 not a skin sensitiser in animal tests.

Eye Contact: Practically non-irritating to eyes.

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.

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Other effects of overexposure: No other adverse clinical effects are known to be associated with exposures to this material. However, because exposure potential is a critical element in the expression of a potential health hazard, this product, if handled in accordance with good industrial hygiene practices, will not present an actual hazard in the workplace.

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Section 12 - ECOLOGICAL INFORMATION

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Persistence and degradation: Not determined.

Effect on effluent treatment: Not determined.

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Section 13 - DISPOSAL CONSIDERATIONS

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

Container disposal: Empty container retains product residue. Observe allhazard 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.

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Section 14 - TRANSPORT INFORMATION

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

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Section 15 - REGULATORY INFORMATION

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OSHA Classification:

Physical: Not Regulated.

Health: Not Regulated.

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

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

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Section 16 - OTHER INFORMATION
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HMIS Ratings:
Health Hazard: 1
Flammability Hazard: 1
Reactivity Hazard: 0
Personal Protection: B* (See Section 8 of the MSDS)

The information herein is given in good faith but no warranty, expressed or implied, is made.

*** This line or section contains revisions or new statements since the last issue date.