

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

---

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	<b>EMKAROX PAG 46</b>
<b>Product Use</b>	Lubricant
<b>Address/Telephone number</b>	Uniqema Uniqema Corporate Center 1000 Uniqema Boulevard New Castle, DE 19720-2790 Uniqema Operator (Mon.-Fri., 8:15 AM - 4:30 PM Eastern): (302) 574-5000 Medical Emergency (24 hr.): (888) 456-6218 Transportation Emergency Involving Chemical Spills, Leaks, Fires, or Accidents (24 hr.): (800) 424-9300

Uniqema is an international business of Imperial Chemical Industries PLC.

Uniqema operates through ICI affiliated companies in the relevant countries such as ICI Americas Inc., Unichema, a division of ICI Uniqema Inc., and Mona Industries Inc. in the USA.

---

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	CAS Number	% (w/w)	OSHA PEL	ACGIH TLV
Polyoxoalkylene glycol ether	---	98.5-99.0	No PEL established	No TLV established
Tricresyl phosphate (<1% ortho isomer)	1330-78-5	1-1.5	No PEL established	No TLV established

Ingredients not precisely identified are proprietary or nonhazardous.  
Values are not product specifications.

---

**3. HAZARDS IDENTIFICATION**

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

**Emergency Overview****Color**

clear

**Form**

Liquid

**Odor**

characteristic odor

CAUSES EYE IRRITATION

INHALATION OR INGESTION MAY CAUSE MUCOUS MEMBRANE IRRITATION.

REPEATED/PROLONGED CONTACT MAY CAUSE SLIGHT SKIN IRRITATION.

No toxicity information is available on this specific preparation; this health hazard assessment is based on information that is available on similar preparations.

**Routes of Exposure** Eye contact Skin contact Inhalation**Eye contact**

This material will cause eye irritation following contact.

**Skin contact**

No irritation is likely to develop following short contact periods with human skin. Repeated and/or prolonged contact may cause irritation. Systemically toxic concentrations of this product will probably not be absorbed through human skin.

**Inhalation**

High concentrations of mists or aerosols may irritate respiratory passages. No toxic effects are known to be associated with inhalation of this material.

**Ingestion**

In humans, irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion of this product. No toxic effects are expected following ingestion of this product.

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

**Other**

Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.

This product contains tricresyl phosphate (TCP <1% ortho isomer). This material was shown to have adverse reproductive effects in rats and mice. Administration of 0.1% or greater TCP in the diet of male and female mice resulted in impaired fertility in both sexes. There were dose-related hisopathological effects on testes and adrenals. Sperm motility was reduced at dietary levels as low as 0.05%. Tests on male rats showed dose-dependent increase in abnormal sperm morphology in rats given 100 mg/kg and 200 mg/kg in the diet.

---

**4. FIRST AID MEASURES****Eye contact**

Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

**Skin contact**

Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention.

**Inhalation**

Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

**Ingestion**

DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

---

**5. FIRE-FIGHTING MEASURES**

Flash Point (°F)

482

Flash Point (°C)

250 (open cup)

Autoignition Temperature (°F)

No data.

Autoignition Temperature (°C)

No data.

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

Flammable Limits	No data.
Extinguishing Media	Water fog, alcohol foam, carbon dioxide, dry chemical.
Special fire-fighting protective equipment	A self contained breathing apparatus and suitable protective clothing must be worn in fire conditions.
Fire and explosion hazards	None known.
Explosion data	
Sensitivity to mechanical impact	No data.
Sensitivity to static discharge	No data.

---

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions	Refer to section 8 for proper personal protective equipment.
Steps to be taken in case material is released or spilled	Contain spill. Soak up material with absorbent and shovel into a chemical waste container. Wash residue from spill area with water and flush to a sewer serviced by a permitted wastewater treatment facility.

---

**7. HANDLING AND STORAGE**

Handling	Prevent eye contact. Do not swallow.
Storage	Store in original containers.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure limits  
OSHA PEL

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

**Component Name**

No OSHA PEL assigned. Minimize exposure in accordance with good hygiene practice.

**Exposure limits****Notes****ACGIH TLV****Component Name**

No ACGIH TLV assigned. Minimize exposure in accordance with good hygiene practice.

**Exposure limits****Notes****Engineering controls****Eye protection****Protective clothing****Respiratory protection****Other**

Provide adequate ventilation.

Chemical tight goggles.

Impervious gloves.

Respiratory protection is not normally needed if controls are adequate.

Eyewash and safety shower easily accessible to the work area.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Color	clear
Form	Liquid
Odor	characteristic odor
pH	No data.
Boiling Point (°F)	392
Boiling Point (°C)	> 200
Flash Point (°F)	482
Flash Point (°C)	250 (open cup)
Autoignition Temperature (°F)	No data.
Autoignition Temperature (°C)	No data.
Flammable Limits	No data.
Explosive Properties	No data.
Oxidizing Properties	No data.
Vapor Density	No data.
Specific Gravity	1
Solubility (water)	Insoluble
Solubility (other)	No data.
Partition Coefficient	No data.
Kinematic viscosity(40°C ) (mm²/S)	68.0
Pour Point (°F)	<-22
Pour Point (°C)	<-30

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

---

**10. STABILITY AND REACTIVITY****Stability**

Stable under normal conditions.

**Materials to avoid**

Strong oxidizing agents.

**Conditions to avoid**

None known.

**Hazardous decomposition products**

Carbon dioxide, carbon monoxide.

**Hazardous polymerization**

Will not occur.

---

**11. TOXICOLOGICAL INFORMATION**

No available information.

---

**12. ECOLOGICAL INFORMATION**

No available information.

---

**13. DISPOSAL CONSIDERATIONS****RCRA (Resource Conservation and Recovery Act) Classification:****Specifically Listed**

Not applicable.

**Wastes****Characteristic Wastes****Ignitability**

Not applicable.

**Corrosivity**

Not applicable.

**Reactivity**

Not applicable.

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

**Toxicity**

Not applicable.

**Disposal method**

Disposal should be in accordance with local, state or national legislation.

**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.

---

**14. TRANSPORT INFORMATION****Department of Transportation:**

Not regulated.

**TDG (Transportation of Dangerous Goods):**

Not regulated.

Not classified in RID/ADR - ADNR - IMDG - ICAO/IATA-DGR.

---

**15. REGULATORY INFORMATION****Inventory Status****EU**

Compliant.

**USA**

Compliant.

**Japan**

Compliant.

**China**

Compliant.

**Korea**

Compliant.

**Philippines**

Compliant.

**EMKAROX PAG 46**

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

OSHA Hazard Communication Standard,  
29 CFR 1910.1200, Hazard Summary:

Health Hazards

Irritant (eye)

Physical Hazards

None

WHMIS Classification

Class D, Division 2 -- Toxic.

CERCLA and SARA Regulations (40 CFR  
355, 370, and 372):

This material contains the following  
chemicals subject to the reporting  
requirements of SARA 313:

No 313-listed  
chemicals in this  
product

SARA 311/312 Hazard Categories:

Immediate

N

Delayed

N

Fire

N

Pressure

N

Reactivity

N

State Regulations:

New Jersey Hazardous Substances

Tricresylphosphate

---

**16. OTHER INFORMATION**

We assigned NFPA ratings and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.



## EMKAROX PAG 46

Material Safety Data Sheet

Date(s) : 2004-08-23 19:45:51

Version 4

MSDS#: 37811

### HMIS Information

Health	1
Flammability	1
Physical Hazards	0

The HMIS ratings displayed above are from the HMIS III Third Edition. There have been significant changes made to the system. "Physical hazard" stands for physical hazard as defined in the OSHA Hazard Communication Standard and replaces the former code for reactivity. For a more detailed explanation of the system and the ratings, please contact our Product Safety and Regulatory Affairs group.

### NFPA Information

Health	1
Flammability	1
Reactivity	0

This information is intended solely for the use of individuals trained in the particular hazard rating system.

The following sections contain revisions or new statements:

The information herein is given in good faith but no warranty, expressed or implied, is made. (R) is a Registered Trademark of ICI Americas. (TM) is a Trademark of ICI Americas.

See also [www.uniqema.com](http://www.uniqema.com)