# **KOPR-KOTE** ® HIGH-TEMPERATURE ANTI-SEIZE

# **DESCRIPTION**

**KOPR-KOTE®** is a low-friction, anti-seize lubricant manufactured from a combination of micro-size copper flakes and graphite dispersed in a water-resistant grease and fortified with antioxidants, plus rust and corrosion inhibitors. **KOPR-KOTE** contains **CZ-EX®**: **JET-LUBE®** EP additive, providing protection unequalled by competitive brands.

**KOPR-KOTE** provides a shield against metal-to-metal contact, preventing seizure and corrosion. It fills irregularities and imperfections and resists welding, hardening, or setting. **KOPR-KOTE** provides low friction and cushions impact and shock loads. Low shear between particles reduces stick-slip, allowing quick disassembly with minimum wrench torque. It will not squeeze out of the threads, gum up, or wash off.

- Not classified as marine pollutant DOT Approval CA2004080025
- NSF Registered No. 120923
- Conforms to MIL-PRF-907E
- Service rating: -65°F (-54°C) to 1800°F (982°C).
- · Contains no lead or zinc.
- Lowers friction; reduces wrench torque.
- Permits reuse of fittings; saves stud, bolt, and nut replacement.
- Aluminum complex base for brushability and stability over a wide temperature range.
- · Not affected by contraction, expansion, or vibration.
- · Will not run, drip, or settle out.
- · Available in convenient aerosol form.

# **APPLICATIONS**

**KOPR-KOTE** is ideal for use on threaded connections, pump housings, flanges, studs, exhaust manifold bolts, compressor heads, autoclaves, lathe centers, etc.

# PRODUCT CHARACTERISTICS

Thickener	Aluminum Complex
Fluid Type	Petroleum
Dropping Point (ASTM D-566)	450°F (232°C)
Specific Gravity	1.15
Density (lb/gal)	9.6
Oil Separation (ASTM D-6184)	<3.0

WT. % Loss @ 212°F (100°C)

Flash Point (ASTM D-92) >450°F (232°C)

K-Factor .15

High Chrome Alloys @ 60,000 PSI Contact Stress Penetration @ 77°F (ASTM D-217) 310 - 330 Copper Strip Corrosion 1A

(ASTM D-4048)

4-Ball (ASTM D-2596)

Weld Point, kgf 800 Load Wear Index 125

## **PACKAGING**

Code No.	Container Size	Container
10055	⅓ lb.	Brush Top can
10002	½ lb.	Brush Top can
10004	1 lb.	Brush Top can
10007	2 lb.	Plug Top can
10041	12 oz.	Aerosol
10050	14 oz.	Cartridge
10091	1 gal.	Pail
10092	2½ gal.	Pail
10093	5 gal.	Pail

# LIMITED WARRANTY

Jet-Lube, Inc. makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube, Inc. materials and workmanship.

This Limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube. Inc.

The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube, Inc. shall not be liable for incidental or consequential damages.

# CORPORATE LOCATIONS

Houston, Texas-World Headquarters

Maidenhead, England

Edmonton, Canada

JET-LUBE, INC. 4849 HOMESTEAD RD., P.O. BOX 21258 (77226-1258) HOUSTON, TX 77028

PHONE: 713-674-7617 FAX: 713-678-4604 E-MAIL: sales@jetlube.com www.jetlube.com

WATS: 800-538-5823

# JET-LUBE, INC.

# MATERIAL SAFETY DATA SHEET

Product Name: KOPR-KOTE®

**Chemical Family:** Petroleum based lubricating grease

Use: Anti-seize (MIL-PRF-907E)

Manufacturer/Supplier: JET-LUBE, INC.

Address: 4849 Homestead Rd., Ste. #200 Houston, TX, 77028 USA Phone: 713-674-7617

Emergency Phone: 713-674-7617 Fax: 713-678-4604

Chemtrec 24 hours (USA): 800-424-9300

Hazardous Components	CAS No.	Wt%	OSHA PEL	ACGIH TLV	Other Limits of Exposure
Petroleum oil	64742014/64742525	40-60	Oil mist TWA-5mg/M <sup>3</sup>	N/A	STEL: 10mg/M <sup>3</sup>
Nonhazardous Blend	82980549/471341 7782435/1317335 12001262/14807966	30-60	UN	UN	STEL: UN
Metallic Copper	7440508	10	N/A	1mg/M <sup>3</sup>	STEL: 2mg/M <sup>3</sup>
Petroleum Solvent (aerosol)	64742898	0-10	TWA-300ppm	300ppm	UN
Hydrocarbon Propellant (aerosol)	68476857	15-25	1000ppm	1000ppm	N/A

Main Hazards-Health Effects

**Eyes:** May cause irritation. **Inhalation:** Viscous nature may block breathing passages if inhaled. **Ingestion:** May cause diarrhea. Skin: For hypersensitive persons, may irritate the skin after prolonged periods of contact.

Eyes: Flush with water until all residual material is gone. If irritation persists, seek medical help. Inhalation: Clear air passage. If respiratory difficulty continues, seek medical help. Ingestion: Wash out mouth immediately. Consult physician. Skin: Wash thoroughly with hand cleanser, followed by soap & water. Contaminated clothing should be dry cleaned before reuse

Extinguishing Media: Foam, dry powder, Halon®, carbon dioxide, sand, earth & water mist. Unsuitable Extinguishing Media: Water jet. Protective Equipment for Fire fighting: Self-contained breathing apparatus.

Personal Precautions: Wear gloves & protective overalls. Environmental Precautions: Do not allow it to enter drains. Spillage: Scrape up bulk, then wipe up remainder with cloth. To prevent walking hazard, pick up remaining residue with diatomaceous earth.

Handling: No special handling precautions necessary. Storage: Do not store at elevated temperatures.

Respiratory Protection: None needed. Hand Protection: Protective gloves for hypersensitive persons. Eye Protection: Glasses, if applied to parts in motion. **Body Protection:** Overalls.

<u>Physical State:</u> Semisolid paste <u>Color:</u> Copper/Bronze <u>Odor:</u> Petroleum pH: Neutral Boiling Range/Point °F (°C): <600 (316) Autoignition Temperature °F (°C): >500 (260) Melting Point °F (°C): 500 (260) Flash Point (COC) °F (°C): 430 (221) Propellant Flash Point (COC) °F (°C): -76 (-60) Explosive Properties: LEL: 0.9% UEL: 7% Evaporation Rate (Butyl Acetate): <0.01 Partition Coefficient (Log Pow): N/A Vapor Pressure (kPa): <0.01 Density (g/cm³): 1.10 OAR Value: N/A Flammability: Not flammable at ambient temp. Oxidizing Properties: None Water Solubility: Nil Vapor Density: >5

Stability: Chemically stable under normal conditions. No photoreactive agents. Conditions to Avoid: Powerful sources of ignition & extreme temps. Materials to Avoid: Strong inorganic & organic acids, oxidizing & copper reactive agents. Hazardous Decomposition Products: Burning generates smoke, airborne soot, hydrocarbons & oxides of carbon, sulfur & nitrogen. Residue mainly comprised of soot & mineral oxides.

Acute Toxicity: Not known. Irritancy-Skin: Very mild. <u>Skin Sensitization:</u> Not known. <u>Subacute/Sub-chronic Toxicity:</u> Not known. Genotoxicity: None known. Chronic Toxicity: None known. California Prop 65: N/A Carcinogen: NTP: No IARC: No OSHA: No EC Classification (67/548/EEC): No Allergens: None known. LC-50: >1.98mg/l (actual test data-mysidopsi bahia). LD-50: N/A

Possible Effects: Highly unlikely to may gernerate oil fractions that could act as a marine pollutant. Behavior: Bioaccumulation Environmental Fate: Highly unlikely to cause widespread contamination. Nontoxic to marine or land organisms.

Product Disposal: Do not incinerate. Contact waste disposal company or local authority for advice. Container Disposal: Pails without liner-see Product Disposal section above. Pails with plastic liner-pail may only be disposed of via standard waste disposal services, recycled or reused. Liner-see Product Disposal section above.

**D.O.T.:** Bulk Nonhazardous D.O.T. exception CA2004080025 Aero Consumer Commodity ORM-D UN No.: Bulk Nonhazardous Aero 1950, Class 2.1 Air Transport (ICAO & IATA): Bulk Nonhazardous Aero Hazardous-pressurized container Sea Transport (IMO & IMDG): Bulk Nonhazardous-pressurized container Sea Transport (IMO & IMO & IMO & IMDG): Bulk Nonhazardous-pressurized container Sea Transport (IMO & IMO ous Aero 1950, Class 2 Road & Rail Transport (ADR/RID): Bulk Nonhazardous Aero Class 2, Aerosols

<u>Labeling Information:</u> None needed EC Annex 1 Classification: Not Applicable. R Phrases: R22—harmful if swallowed. SARA 311/312: None WHMIS (Canada): Bulk Not controlled Aero Class A, B-5 Canadian DSL: All components listed. TSCA 12B Components: None 40 CFR Part 372 (SARA Section 313): This product contains copper. CERCLA: Nonhazardous RCRA Hazard Class: Nonhazardous

SDS first issued. SDS data revised. New Jersey Right To Know: See Section II

Signature: \( \frac{1}{2} \) Prepared by: Donald A. Oldiges Date Issued: October 31, 2006

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#### **LEGEND**

- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY
- COMPOSITION INFORMATION ON INGREDIENTS
- HAZARDS IDENTIFICATION
- FIRST AID MEASURES M FIRE FIGHTING MEASURES
- VI. ACCIDENTAL RELEASE MEASURES
- VII.
- VIII. EXPOSURE CONTROL/PERSONAL PROTECTION
- IX. PHYSICAL AND CHEMICAL PROPERTIES
- STABILITY AND REACTIVITY
- XI. TOXICOLOGICAL INFORMATION XII ECOLOGICAL INFORMATION
- XIII. WASTE DISPOSAL
- TRANSPORT INFORMATION
- REGULATORY INFORMATION
- OTHER INFORMATION

### HMIS SYMBOL - BULK HMIS SYMBOL - AEROSOL

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PPI	В

### NFPA SYMBOL



NFPA SYMBOL

1

4

1

G

HEALTH

PPI

FLAMMABILITY

REACTIVITY

