

MARINE-KOPR™

COPPER ANTI-SEIZE

DESCRIPTION

MARINE-KOPR™ Copper Anti-Seize Compound is manufactured to exacting marine specifications and contains micro-sized copper flake and graphite in a highly water resistant aluminum complex base grease. **MARINE-KOPR** is fortified with anti-oxidants and corrosion inhibitors to ensure extra protection in extreme marine conditions.

MARINE-KOPR is recommended on all marine threaded and flanged connections to prevent galling, seizure and heat welding, and to reduce torque requirements. Prevents rust and corrosion over broad temperature ranges.

- Lead Free
- Service rating: -65°F (-54°C) to 1800°F (982°C)
- Prevents rust/corrosion
- Lowers friction
- Will not run, drip, settle
- Color - Bronze

APPLICATIONS

Threaded Fasteners
Flange Faces
Gaskets

Flanged Connections
Keyways

PRODUCT CHARACTERISTICS

Color	Bronze
Penetration (ASTM D-217)	285 - 315
Density (lb/gal)	8.9
Specific Gravity	1.07
Flash Point (ASTM D-92)	>430°F (221°C)
Shell 4-Ball (ASTM D-2596)	
Weld Point, kg	315
Load Wear Index	54.24
Wear Scar (ASTM D-2266)	1.025
Dropping Point (ASTM D-566)	450°F (232°C)
Thickener Type	Aluminum Complex
Base Oil Type	Petroleum
Copper Strip Corrosion (ASTM D-4048)	1B
Water Spray Off Resistance (ASTM D-4049)	<40%
VOC (EPA 624)	None

Shelf Life: Minimum two years from manufacture date.

PACKAGING

Code No.	Container Size	Container
09702	½ lb.	Brush Top can
09704	1 lb.	Brush Top can

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

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JET-LUBE, INC.

MATERIAL SAFETY DATA SHEET

Product Name: **MARINE KOPR™**
Chemical Family: Petroleum based lubricating anti-seize
Use: Anti-seize/anti-gall coating for threaded fasteners and sliding applications.

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	64742525/64742014	60-100	Oil mist	N/A	STEL: 10mg/M ³
Nonhazardous Blend	1314132/14807966 1317653/13463677 7782425	10-30	UN	UN	STEL: UN
Copper Powder	7440508	1-5	N/A	1mg/M ³	STEL: 2mg/M ³

Main Hazards—Health Effects

Eyes: May cause irritation. **Inhalation:** Viscous nature may block breathing passages if inhaled. **Ingestion:** May cause diarrhea.
Skin: Possible rash for persons with persensivity.

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.

Physical State: Semisolid paste **Color:** Bronze **Odor:** Petroleum **pH:** Neutral **Boiling Range/Point °F (°C):** <600 (316)

Melting Point °F (°C): 450 (232) **Flash Point (COC) °F (°C):** 430 (221) **Autoignition Temperature °F (°C):** >500 (260)

Explosive Properties: LEL: 0.9% UEL: 7% **Evaporation Rate (Butyl Acetate):** <0.01 **Partition Coefficient (Log Pow):** N/A

Vapor Pressure (kPa): <0.01 **Percent Volatiles:** Nil **Density (g/cm³):** 1.07 **Flammability:** Not flammable at ambient temperature.

OAR Value: N/A **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. **Skin Sensitization:** Not known. **Subacute/Sub-chronic Toxicity:** Not known. **Genotoxicity:** None known. **Chronic Toxicity:** None known. **California Prop 65:** N/A

Carcinogen: NTP: No IARC: No OSHA: No **EC Class (67/548/EEC):** No **Allergens:** None known.

LC-50: 1.98g/lit-(mysidopsis bahia) based on assessment from related products. **LD-50:** N/A

Possible Effects: May generate oil fractions that could act as a marine pollutant, but is unlikely.

Behavior: Relatively well behaved. Bioaccumulation potential nil. **Environmental Fate:** Highly unlikely to cause noteable contamination.

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.

Not classified as hazardous for transport.

D.O.T.: Nonhazardous **UN No.:** N/A

Air Transport (ICAO & IATA): N/A

Sea Transport (IMO & IMDG): N/A **Road & Rail Transport (ADR/RID):** N/A


Labeling Information: None needed **EC Annex 1 Classification:** Not Applicable. **R Phrases:** R22—harmful if swallowed.

S Phrases: None applicable, as known. **Ozone Depleting Chemicals:** Not applicable. **TSCA:** All components are listed.

WHMIS (Canada): Not controlled. **Canadian DSL:** All components listed. **SARA 311/312:** None **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: 
Prepared by: Donald A. Oldiges
Date Issued: June 27, 2008

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LEGEND	
I.	IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY
II.	COMPOSITION INFORMATION ON INGREDIENTS
III.	HAZARDS IDENTIFICATION
IV.	FIRST AID MEASURES
V.	FIRE FIGHTING MEASURES
VI.	ACCIDENTAL RELEASE MEASURES
VII.	HANDLING AND STORAGE
VIII.	EXPOSURE CONTROL/PERSONAL PROTECTION
IX.	PHYSICAL AND CHEMICAL PROPERTIES
X.	STABILITY AND REACTIVITY
XI.	TOXICOLOGICAL INFORMATION
XII.	ECOLOGICAL INFORMATION
XIII.	WASTE DISPOSAL
XIV.	TRANSPORT INFORMATION
XV.	REGULATORY INFORMATION
XVI.	OTHER INFORMATION

HMIS SYMBOL

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0
PPI	B

NFPA SYMBOL

