



A CSW Industrials Company

Material Safety Data Sheet

Issuing Date 31-Oct-2012

Revision Date 15-Mar-2017

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name KOPR-KOTE® GEOTHERMAL
Product Code(s) 102
Recommended Use Lubricants, Greases and Release Products

Manufacturer Address

Jet-Lube, LLC
930 Whitmore Dr.
Rockwall, Texas 75087
TEL: 972-771-1000
Toll Free: 1-800-669-6318

Emergency Telephone Number TEL: 972.771.1000
800.699.6318

2. HAZARDS IDENTIFICATION

Emergency Overview

May cause adverse kidney effects

Appearance Copper, Bronze **Physical State** Gel. **Odor** Petroleum like

Potential Health Effects

Acute Toxicity

Eyes May cause slight irritation.
Skin No known effect based on information supplied.
Inhalation May be harmful if inhaled.
Ingestion No known effect based on information supplied.

Chronic Effects May cause adverse liver effects.

Aggravated Medical Conditions Pre-existing eye disorders. Kidney disorders. Liver disorders. Skin disorders. Respiratory disorders. Central Vascular System (CVS).

Environmental Hazard Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Copper	7440-50-8	7-13
Molybdenum (IV) sulfide	1317-33-5	1-5

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash skin with soap and water.

Inhalation Move to fresh air.

Ingestion Clean mouth with water and afterwards drink plenty of water.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties Not flammable.

Flash Point > 310 °C
Flashpoint Method Open cup

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health Hazard 0	Flammability 1	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 0	Flammability 1	Physical Hazard 0	Personal Protection X

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Ensure adequate ventilation.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep in a banded area

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper 7440-50-8	TWA: 0.2 mg/m ³ fume	TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist	IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume
Molybdenum (IV) sulfide 1317-33-5	TWA: 10 mg/m ³ Mo inhalable fraction TWA: 3 mg/m ³ Mo respirable fraction	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ Mo	IDLH: 5000 mg/m ³ Mo

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side shields or safety goggles.

Skin and Body Protection

Protective gloves.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Copper, Bronze.	Odor	Petroleum like.
Odor Threshold	No information available.	Physical State	Gel
pH	Neutral	Flashpoint Method	Open cup
Flash Point	> 310 °C	Decomposition Temperature	No information available.
Autoignition Temperature	>315 °C / >500 °F	Melting Point/Range	> 315 °C
Boiling Point/Boiling Range	< 316 °C	Flammability Limits in Air	No information available.
		Upper	7%
		Lower	0.9%
Specific Gravity	1.15	Water Solubility	Insoluble in water.
Solubility	Soluble	Evaporation Rate	No information available.
Vapor Pressure	<0.01 kPa @ 20°C	Vapor Density	>5 (air = 1)

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Products None known based on information supplied.

Conditions to Avoid None known based on information supplied.

Hazardous Decomposition Products None known based on information supplied.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Molybdenum (IV) sulfide			> 2820 mg/m ³ (Rat) 4 h

Chronic Toxicity

Chronic Toxicity May cause adverse liver effects.

Target Organ Effects Central vascular system (CVS). Kidney. Liver. Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Ecotoxicity effects of component substances:

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Copper	EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas) LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata) LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio) LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)	-	EC50 48 h: = 0.03 mg/L Static (Daphnia magna)

Persistence and Degradability No data is available on the product itself.

Bioaccumulation No data is available on the product itself

Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated Packaging Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Copper	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

IMDG/IMO

- 14.1. UN-Number Not regulated.
- 14.2. Proper Shipping Name Not regulated.
- 14.3. Hazard Class Not regulated.
- 14.4. Packing Group Not regulated.
- Description Not applicable.
- 14.5. Marine Pollutant None.
- 14.6. Special Provisions None.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

RID

14.1. UN-Number Not regulated.
 14.2. Proper Shipping Name Not regulated.
 14.3. Hazard Class Not regulated.
 14.4. Packing Group Not regulated.
 Description Not applicable.
 14.5. Environmental hazard None.
 14.6. Special Provisions None.

ADR

14.1. UN-Number Not regulated.
 14.2. Proper Shipping Name Not regulated.
 14.3. Hazard Class Not regulated.
 14.4. Packing Group Not regulated.
 Description Not applicable.
 14.5. Environmental hazard None.
 14.6. Special Provisions None.

ICAO

14.1. UN-Number Not regulated.
 14.2. Proper Shipping Name Not regulated.
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 14.3. Hazard Class Not regulated.
 14.4. Packing Group Not regulated.
 Description Not applicable.
 14.5. Environmental hazard None.
 14.6. Special Provisions None.

IATA

14.1. UN-Number Not regulated.
 14.2. Proper Shipping Name Not regulated.
 14.3. Hazard Class Not regulated.
 14.4. Packing Group Not regulated.
 Description Not applicable.
 14.5. Environmental hazard None.
 14.6. Special Provisions None.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
TDG	Complies
EINECS	Complies
ENCS	Not determined
IECSC	Not determined
KECL	Not determined
PICCS	Not determined
AICS	Not determined

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances **IECSC**
 - China Inventory of Existing Chemical Substances **KECL** -
 Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Copper	7440-50-8	10	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Copper	X	X	X	X	X

International Regulations

Mexico – Grade **slight risk, Grade 1**

Chemical Name	Carcinogen Status	Exposure Limits
Copper		Mexico: TWA= 1 mg/m ³ Mexico: TWA= 0.2 mg/m ³ Mexico: STEL= 2 mg/m ³
Molybdenum (IV) sulfide		Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Non-controlled

16. OTHER INFORMATION

Prepared By	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
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Revision Note	Updated company information.

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet