

LEHDER Environmental Services Limited has attempted to obtain an updated SDS. No update is available for the reason identified below:

Manufacturer/supplier confirms this to be a non-hazardous product, and as such, SDS updates are not required.

Manufacturer/supplier confirms that this is the most recent SDS available.

Manufacturer/supplier has not responded to our request for an updated SDS prior to project completion schedule.

SDS now available for individual product lines. LEHDER requires identification of specific product.

Manufacturer/supplier will not send SDS to third party.

Molyslip (Canada) Inc. • 1145 Bellamy Road North, Unit 20 • Scarborough, ON, Canada M1H 1H5 • Phone (416) 438-5523

SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: COPASLIP LEAD FREE

Product code(s): 3470 to 3479, and 53470 to 53479.

Product use: Anti-seize assembly compound used for protection against seizure, rust, oxidation and corrosion.

Chemical Family: Mixture of mineral oil, copper and organic thickening agents.

Supplier's name and address:

Molyslip (Canada) Inc.

1145 Bellamy Road North, Unit 20

Scarborough, ON, Canada, M1H 1H5

Phone: 416-438-5523 (9 AM to 5 PM EST, Monday to Friday)

Emergency Tel. #: 613-996-6666 (CANUTEC)

Manufacturer's name and address:

Refer to Supplier.

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
			<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Solvent refined mineral oil	64742-65-0	40 - 70	*5 mg/m ³	N/Av	*5 mg/m ³	N/Av
Hydrated magnesium silicate	14807-96-6	15 - 40	2 mg/m ³	N/Av	20 mppcf	N/Av
Copper	7440-50-8	7 - 13	0.2 mg/m ³ (fume); 1 mg/m ³ (dust/mist)	N/Av	0.2 mg/m ³ (fume); 1 mg/m ³ (dust/mist)	N/Av
Dialkyldimethylammonium bentonite	68953-58-2	1 - 5	N/Av	N/Av	*50 mppcf (total dust)	N/Av

*Notes: The ACGIH TLV and OSHA PEL listed above for Solvent refined mineral oil is as 'Oil mist, mineral'. The OSHA PEL listed above for Dialkyldimethylammonium bentonite is as 'Inert or nuisance dust'.

SECTION 3 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Copper colored semi-solid. Oily hydrocarbon odor. **Caution!** Harmful if inhaled or swallowed. Inhalation of fumes from heated product could cause metal fume fever, a flu-like illness. May cause respiratory tract irritation. Prolonged or repeated contact may dry skin and cause irritation. Contains material which can cause lung damage following repeated inhalation. Contains material which can cause adverse liver and kidney effects.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, liver, kidneys.

Routes of exposure: Skin contact, eye contact, inhalation, ingestion.

Signs and symptoms of short-term (acute) exposure:

Inhalation: If this product is heated, or dusts and/or mists are formed, inhalation may cause irritation to the nose, throat and upper respiratory tract. Symptoms may include shortness of breathe, sneezing and coughing. Fumes from heated product may cause metal fume fever, a flu-like illness causing symptoms which include fever, a metallic taste in the mouth, nausea, coughing and muscle aches.

Skin: Direct skin contact causes little or no irritation. Could cause a greenish-black discoloration of the skin.

Eyes: Direct eye contact may cause mild irritation. Symptoms may include tearing, blinking and pain.

Ingestion: Ingestion may cause irritation in the mouth, throat and stomach. Symptoms may include nausea, vomiting, abdominal pain and diarrhea. Ingestion of larger amounts could cause jaundice, liver damage and kidney damage.

Chronic effects: Repeated or prolonged skin exposure may result in drying and defatting of the skin (possible dermatitis).

If dusts are formed, repeated inhalation can cause chronic respiratory disease (pneumoconiosis) and/or scarring of lung tissue (fibrosis). Symptoms of lung disease may include coughing, increase phlegm production and shortness of breathe.

SECTION 3 — HAZARDS IDENTIFICATION Continued

Conditions aggravated by exposure: Pre-existing skin, eye and respiratory disorders.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

SECTION 4 — FIRST AID MEASURES

Inhalation: Immediately remove person to fresh air. If breathing is difficult, oxygen may be administered by qualified personnel. Obtain medical attention.

Skin contact: Wash skin thoroughly with mild soap and running water, while removing contaminated clothing. Obtain medical attention if irritation develops and persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 10 to 15 minutes. Obtain medical attention if irritation develops and persists.

Ingestion: If swallowed, do not induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious or convulsing person.

Note to Physicians: Treat symptomatically.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Not considered flammable. However, product may be combustible if exposed to extreme heat and direct flame. Closed containers may build up pressure when exposed to heat.

Flammability classification (OSHA 29 CFR 1910.1200): Non-flammable.

Flash point (Method): >200°C / 392°F (PMCC)

Auto-ignition temperature: N/Av

Lower flammable limit (% by vol.): N/Av

Upper flammable limit (% by vol.): N/Av

Explosion data: *Sensitivity to mechanical impact / static discharge:* Not expected to be sensitive.

Oxidizing properties: None known.

Suitable extinguishing media: Use media suitable to the surrounding fire, such as foam, carbon dioxide, dry chemical or water fog. Do not use water jet, as this may spread burning material.

Special fire-fighting procedures/equipment: Do not enter fire area without proper protection. Fire-fighters should wear full protective clothing and a NIOSH approved self-contained breathing apparatus, with a full-face piece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products: Carbon oxides, nitrogen oxides, sulfur oxides, phosphorous oxides, copper oxides and other irritating fumes and smoke.

NFPA Rating: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: 1 Flammability: 1 Instability: 0 Special Hazard: None

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment. Use caution during clean-up procedures. Spilled product presents a significant slip hazard.

Environmental precautions: Ensure any spilled material does not enter drains, sewers, waterways or confined spaces.

Spill response/Cleanup: Eliminate all sources of heat, sparks and flame. Ventilate area of release. Stop leak if you can do so without risk. Cover spilled material with non-combustible absorbent material (such as vermiculite), then shovel material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: In case of a transportation accident, contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887. If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

DOT/CERCLA Reportable quantity (RQ): Copper (5000 lbs.).

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is a harmful paste. Wear protective equipment during handling. Use in a well-ventilated area. Avoid inhaling fumes and dusts or mists. Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Keep away from heat and flame. Keep away from acids and incompatibles. Avoid and control operations which create dusty conditions. Keep container closed when not in use. Assume empty containers contain residues, which are hazardous. Launder contaminated clothing before reuse.

Storage requirements: Store in a cool, dry, well-ventilated area away from sources of heat and flame. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use adequate ventilation to maintain air contaminants below exposure limits.

Local and/or general exhaust may be required

Respiratory protection: Respiratory protection is required if the airborne concentration exceeds the TLV or is not known.

Wear NIOSH-approved respirators. Advice should be sought from respiratory protection specialists.

Skin protection and other protective equipment: Protective gloves impervious to the material may be worn during prolonged use. Confirmation of what type of material is most suitable for the intended application, should be obtained from glove suppliers. An eyewash station and safety shower should be made available in the immediate working area.

Eye / face protection: Use safety glasses with side shields or chemical splash goggles. Contact lenses should not be worn.

General hygiene considerations: Do not inhale fumes and dusts or mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Permissible exposure levels: For individual ingredient exposure levels, see Section 2.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Copper colored, semi-solid paste. Oily hydrocarbon odor.

Evaporation rate (n-Butyl acetate = 1): N/Av.

Odor threshold: N/Av.

Solubility in water: Insoluble.

Vapor density (Air = 1): N/Av

Melting / Freezing point: -9°C / 16°F.

Coefficient of water/oil distribution: N/Av

Specific gravity: 1.13

Vapor pressure: N/Av.

Boiling point: N/Av

pH: N/Av

Volatiles (% by weight): N/Av

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions.

Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid heat, direct flame and contact with incompatible materials.

Materials to avoid (incompatibles): Strong oxidizers (e.g. Chlorine, Peroxides, etc.), strong acids.

Hazardous decomposition products: None known. Refer to 'Hazardous Combustion products', Section 5.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC ₅₀ (4hr) inh, rat	LD ₅₀ (mg/kg)	
		oral, rat	dermal, rabbit
Solvent refined mineral oil	Not available	>5000	>5000
Hydrated magnesium silicate	Not available	Not available	Not available
Copper	Not available	Not available	Not available
Dialkyldimethylammonium bentonite	>12.6 mg/L	>5000	Not available

SECTION 11 — TOXICOLOGICAL INFORMATION Continued

Carcinogenic status: None of the ingredients listed are classified as carcinogenic by IARC, ACGIH, NTP or OSHA.

Reproductive effects, Teratogenicity, Mutagenicity: None known.

Sensitization to material: None known.

Other important hazards: None known.

Synergistic materials: Not available.

SECTION 12 — ECOLOGICAL INFORMATION

Chemical fate information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Ecotoxicological information: There is no data available on the product itself.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Empty containers may contain product residue or vapors. Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state, provincial and/or local regulations. Contact your local, state, provincial and/or federal environmental agency for specific rules.

RCRA: If this product, as supplied, becomes a waste, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. Under the RCRA, it is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

US DOT 49 CFR information: As supplied, not regulated for transportation by ground within the continental United States.

Canadian Transportation of Dangerous Goods Regulations (TDGR) information: Not regulated for transportation by ground within Canada.

SECTION 15 — REGULATORY INFORMATION

US Federal Information:

OSHA information: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

TSCA information: All components are listed on the TSCA inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Copper (5000 lbs.).

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic).

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Copper, a Toxic Chemical constituent above its *de minimus* concentration.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

SECTION 15 — REGULATORY INFORMATION Continued

US State Right to Know Laws (continued):

New Jersey Labeling Requirements: This product contains the following substances that may be required to be disclosed on product labeling:

Chemical Name	CAS #	% (weight)	New Jersey Hazardous Substance
Solvent refined mineral oil	64742-65-0	40 - 70	No
Hydrated magnesium silicate	14807-96-6	15 - 40	Yes
Polyisobutylene	9003-29-6	7 - 13	No
Copper	7440-50-8	7 - 13	Yes
Dialkyldimethylammonium bentonite	68953-58-2	1 - 5	No
Tackifier	N/Av	<1	N/Av
Propylene carbonate	108-32-7	<1	No

International Information:

Canadian WHMIS Classification: Class D2A (*Materials Causing Other Toxic Effects, Very Toxic Material*).

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

Canadian CEPA information: All ingredients are listed on the DSL.

SECTION 16 — OTHER INFORMATION

HMIS Rating: * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: *1 Flammability: 1 Reactivity: 0

Prepared by: Molyslip (Canada) Inc.

Telephone No.: 416-438-5523

Preparation date: August 7, 2015

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CERCLA: US Comprehensive Environmental Response, Compensation, and Liability Act of 1980
NIOSH: National Institute of Occupational Safety and Health
WHMIS: Canadian Workplace Hazardous Materials Identification System
CAS: Chemical Abstract Services CFR: US Code of Federal Regulations
DOT: US Department of Transportation DSL: Canadian Domestic Substances List
EPA: US Environmental Protection Agency EST: Eastern Standard Time
HMIS: Hazardous Materials Identification System N/Ap: not applicable
IARC: International Agency for Research on Cancer N/Av: not available
mppcf: million particles per cubic foot of air NTP: National Toxicology Program
NFPA: National Fire Protection Association PEL: Permissible Exposure Limit
OSHA: Occupational Safety and Health Administration PMCC: Pensky Martens Closed Cup
RCRA: US Resource Conservation and Recovery Act STEL: Short Term Exposure Limit
SARA: US Superfund Amendments & Reauthorization Act TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act TWA: Time Weighted Average

- References:**
1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2005.
 2. International Agency for Research on Cancer Monographs, searched 2006.
 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2006 (Chempendium and RTECs).
 4. Material Safety Data Sheet from manufacturer.
 5. US EPA Title III List of Lists – January 27, 2005 version.
 6. California Proposition 65 List – February 3, 2006 version.

END OF DOCUMENT