



MATERIAL SAFETY DATA SHEET

LPS[®] Copper Anti-Seize Aerosol

Revision: 4

Revision Date: 11/17/08

Supersedes: 1/31/03

Section 1 – Identification

Product Name: LPS[®] Copper Anti-Seize Aerosol

Part Number: 02916, C02916

Chemical Name: Petroleum Hydrocarbon-Copper mixture

Product Use: A low-friction, anti-seize spray lubricant designed to prevent seizure and galling, and resist settling and hardening of welding.

Manufacturer Information: LPS Laboratories, 4647 Hugh Howell Rd., Tucker, GA, USA 30084

TEL: 1 770-243-8800

Emergency Telephone Number: 1-800-424-9300 Chemtrec;
Outside U.S.: (703) 527-3887

FAX: 1 770-243-8899

Website: <http://www.lpslabs.com>

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably won't help the non-professional. LPS includes this "PLAIN LANGUAGE HAZARD SUMMARY" to address the questions and concerns of the average worker. If you have additional health, safety or product questions, don't hesitate to call us at 800/241-8334.

Worker Toxicity

LPS[®] Copper Anti-Seize is an anti-seize spray lubricant designed to prevent seizure and galling, and resist settling and hardening of welding. It contains petroleum distillates and mineral oils that can be irritating to skin. Avoid extended exposure to unprotected skin. Don't get it in your eyes (it stings) and may cause irritation. Do not breathe the spray or vapor; the viscous nature may block breathing passages. Vapors from heated LPS[®] Copper Anti-Seize can make you dizzy and even sick. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

LPS[®] Copper Anti-Seize Aerosol is flammable. Under normal use conditions flammability isn't a concern, but don't apply the product around powerful sources of ignition and/or at extreme temperatures.

Disposal

LPS[®] Copper Anti-Seize in non-aerosol form is not hazardous for disposal; however, if it becomes contaminated with another substance, the resulting mixture may fall under a hazardous classification. See section 13 for more details.



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Section 2 – Hazards identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Emergency Overview:

Aerosol: DANGER: Extremely Flammable. Eye and Skin Irritant. Vapor Harmful. Contents Under Pressure. Harmful or Fatal if Swallowed. Do not used on energized equipment.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Repeated exposure may cause skin dryness or cracking.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities may cause nausea, vomiting, and gastrointestinal irritation. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No OSHA: No ACGIH: No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure:

Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms:

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 – Composition / Information on Ingredients

Component	CASRN	Weight Percent
Petroleum Oil	64742-52-5	30 - 60%
Residual Oil	64742-01-4	10 - 30%
Light Mineral Spirits	8052-41-3/64742-88-7	10 - 30%
Propane/Isobutane Blend	68476-85-7	10 - 30%
Copper	7440-50-8	1 - 5%



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Section 4 – First Aid Measures

- Eyes:** Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
- Skin:** Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.
- Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.
- Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 – Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: Use dry chemical powder, CO₂, water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosions.

Sensitivity to Impact: None. **Sensitivity to Static Discharge:** None.

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Section 6 – Accidental Release Measures

- Containment Procedures** Contain and recover spilled liquid when possible.
- Clean-Up Procedures**
- Small Spill and Leak:** Absorb with an inert material and dispose of properly.
- Large Spill and Leak:** Secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.
- Evacuation Procedures** Ventilate area of leak or spill. Keep unnecessary and unprotected people away.
- Special Procedures** Ventilate area. Wear appropriate protective equipment during cleanup.



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Section 7 – Handling and Storage

Handling: DO NOT spray into or around ignition sources. Do not allow material to come into contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Do not breathe vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: Store all materials in dry, well-ventilated area. Avoid breathing vapors.

Section 8 – Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEEL	NIOSH REL
Petroleum Oil	64742-52-5	5 mg/m ³ (oil mist)*	10 mg/m ³ (oil mist)*	Not Established	Not Established	Not Established
Residual Oil	64742-01-4	5 mg/m ³ (oil mist)*	10 mg/m ³ (oil mist)*	Not Established	Not Established	Not Established
Light Mineral Spirits	8052-41-3 64742-88-7	100 ppm	Not Established	100 ppm	Not Established	Not Established
Propane/Isobutane Blend	68476-85-7	Not Established	Not Established	1000 ppm	Not Established	Not Established
Copper	7440-50-8	1 mg/m ³ (mist)	Not Established	1 mg/m ³ (mist)	2 mg/m ³ (mist) Canada	1 mg/m ³ (mist)

* Supplier Recommendation

Engineering measures

Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines listed above.

Personal protective equipment

Eye protection

Safety glasses with side shields conforming to appropriate regulations. Eye wash fountain and emergency shower facilities are recommended.

Hand protection

Normally no hand protection is required; however, if product will be used for an extended period, contact to skin may occur. If so, use chemical resistant gloves (i.e., nitrile, neoprene, buna) conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves.

Respiratory protection

Typical use of this product under normal conditions does not require the use of respiratory protection. If airborne concentrations are above the applicable exposure limits (listed above), use NIOSH approved respiratory protection (i.e., organic vapor cartridge).

General Hygiene Considerations

Wash thoroughly after handling. Have eye-wash facilities immediately available.



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Section 9 – Physical and Chemical Properties

Appearance:	Gel	Color:	Brown/Bright Copper
Odor/Taste:	Petroleum	Vapor Pressure:	<2
Solubility Description:	Nil	Evaporation Rate:	<1.6 (BuAc=1)
Boiling Point:	> 274°C (525°F)	Flash Point:	221°C(430°F) (concentrate)
Specific Gravity (Water=1):	1.0 – 1.2 @ 20 °C	Flash Point Method:	Tag-Closed Cup.
Vapor Density (air=1):	Not Established	Auto Ignition Temperature:	232°- 260°C(450° -500°F) (bulk)
Flammable limits (estimated):	LOWER: 0.9% UPPER: 7%	Partition Coefficient (octanol/water):	Not Established
pH:	Not Established	Viscosity:	Not Established
Decomposition Temperature	Not Established	Odor threshold	Not Established

Section 10 – Chemical Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from ignition sources and extreme temperatures.
Incompatibility:	Reactive or incompatible with oxidizing agents. Avoid photoreactive agents, strong inorganic and organic acids, and copper reactive agents.
Hazardous Decomposition:	These products are carbon oxides (CO, CO ₂), hydrocarbons, sulfur, and nitrogen.
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicological Information

A: General Product Information

An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this preparation.

B: Component Analysis

Ingredients	CASRN	LC-50	LD-50
Petroleum Oil	64742-52-5	2.18 mg/L/rat/4hr	>5000 mg/kg/oral/rat >2000 mg/kg/dermal/rabbit
Residual Oil	64742-01-4	2.18 mg/L/rat/4hr	>5000 mg/kg/oral/rat >2000 mg/kg/dermal/rabbit
Light Mineral Spirits	8052-41-3 64742-88-7	>5500 mg/m ³ /rat/4hr	>5000 mg/kg/oral/rat >3000 mg/kg/dermal/rat
Propane/Isobutane Blend	68476-85-7	658 mg/L/rat/4hr	Not appropriate
Copper	7440-50-8	238 mg/m ³ nonmammalian/24hr	413 mg/kg /oral/mouse/



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Section 12 – Ecological Information

Mobility:	Semi-volatile. Partially absorbed into soil.	Persistence and degradability:	Slightly biodegradable.
Bioaccumulative potential:	Minimal bioaccumulation potential	Other adverse effects:	See Note 1-below

Ecological studies have not been conducted for this product. The following information is available for component(s) of this product.

Ecotoxicology:

Effect on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Petroleum Oil	64742-52-5	96h-LC ₅₀	Oncorhynchus mykiss	>5000 mg/L
	Residual Oil	64742-01-4	96h-LC ₅₀	Oncorhynchus mykiss	>5000 mg/L
	Light Mineral Spirits	8052-41-3 64742-88-7	96h-LC ₅₀	Fathead Minnow	800 mg/L
	Copper	7440-50-8	48h-LC ₅₀	Gambusia affinis	0.18 m/L
Acute Toxicity on Daphnia	Petroleum Oil	64742-52-5	48h-LC ₅₀	Daphnia Magna	>1000 mg/L
	Residual Oil	64742-01-4	48h-LC ₅₀	Daphnia Magna	>1000 mg/L
	Light Mineral Spirits	8052-41-3 64742-88-7	48h-LC ₅₀	Daphnia Magna	>100 mg/L
Bacterial inhibition	Petroleum Oil	64742-52-5	Bacterial Growth Inhibition	Pseudomonas fluorescens (Bacteria)	> 1000 mg/L
	Residual Oil	64742-01-4	Bacterial Growth Inhibition	Pseudomonas fluorescens (Bacteria)	> 1000 mg/L
Growth inhibition of algae	Copper	7440-50-8	Growth inhibition concentration	Algae	0.15 mg/L
	Petroleum Oil	64742-52-5	96h-EC ₅₀	Algae	>1000 mg/L
	Residual Oil	64742-01-4	96h-EC ₅₀	Algae	>1000 mg/L
	Light Mineral Spirits	8052-41-3 64742-88-7	96h-EC ₅₀	Algae	450 mg/L
Bioaccumulation in fish					

Note 1- Copper has been shown to be moderately toxic to fish.



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Section 13 – Disposal Considerations

Waste Status: Aerosol cans, if depressurized and emptied to less than 2.5 cm of fluid contents are classified as non-hazardous waste under 40 CFR 261.7 (U.S.). If disposed of in its received form, this product carries waste codes D001 and D003. (U.S.)

Disposal: Waste must be disposed of in accordance with national, regional, provincial, and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.

Section 14 – Transportation Information

D.O.T. Ground	Shipping Name:	ORM-D	UN Number:	NA
	Hazard Class:	NA	Technical Name:	NA
	Subclass:	NA	Hazard Label:	ORM-D Already on box
Road/Rail - ADR/RID	UN no:	1950	ADR Class:	2.1
	Packing group:	NA	Classification code:	5F
	Name and Description:	AEROSOLS, Flammable	Hazard ID no:	NA
	Labeling:	2.1		
IMDG-IMO	UN no:	1950	Class:	2.1
	Shipping Name:	AEROSOLS	Subsidiary Risk:	NA
	Packing Instructions:	NA	Packing group:	NA
	Marine pollutant:	NO	EmS:	F-D, S-U
IATA-ICAO	UN no:	1950	Class:	2.1
	Shipping Name:	AEROSOLS, Flammable	Subclass	NA
	Packing instructions:	NA	Packing group:	NA
	Labeling:	Flammable Gas		

Section 15 – Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D003

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): 5000 lbs. Copper 7440-50-8

Toxic Substances Control Act (TSCA):

All components of this product are TSCA inventory listed and/or are exempt.

Superfund Amendments and Reauthorization Act (SARA) Title III

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Sudden Release of Pressure, Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): Copper 7440-50-8 max 5%

Section 112 Hazardous Air Pollutants (HAPs): None



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State Regulations

New Jersey RTK:

Petroleum Oil 64742-52-5 • Residual Oil 64742-01-4 • Light Mineral Spirits 64742-88-7/8052-41-3 • Magnesium Silicate Hydrate 14807-96-6 • Calcium Carbonate 471-34-1 • Molybdenum Disulfide 1317-33-5 • Copper 7440-50-8 •

California: This product does not contain chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm.

California and OTC States: This product is not regulated by consumer regulations.

International Regulations

Canadian Environmental Protection Act: All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System (WHMIS):

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

WHMIS Classification: Aerosol
Class A, Class B5, Class D2B



Other Regulations

Montreal Protocol listed ingredients: None.

Stockholm Convention listed ingredients: None.

Rotterdam Convention listed ingredients: None.

RoHS Compliant: Yes.

Section 16 • Other Information

MSDS# 12916 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA Flammability Health Reactivity
	Health:	1	Health:	[/]1	
	Flammability:	3	Flammability:	3	
	Reactivity	0	Physical Hazard:	2	

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Clea Johnson, Regulatory Affairs Coordinator
LPS Laboratories, A division of Illinois Tool Works