



MATERIAL SAFETY DATA SHEET

LPS[®] Nickel Anti-Seize

Revision: 4

Revision Date: 1/7/09

Supercedes: 1/31/03

Section 1 – Identification

Product Name: LPS[®] Nickel Anti-Seize

Part Number: 03908, 3910, C03908, C03910

Chemical Name: Petroleum Hydrocarbon Mixture

Product Use: A low-friction, anti-seize 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[®] Nickel Anti-Seize is a low-friction, anti-seize 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[®] Nickel 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[®] Nickel Anti-Seize is nonflammable with a flashpoint greater than 430°F.

Disposal

LPS[®] Nickel Anti-Seize 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:

Bulk: CAUTION: Harmful or Fatal if Swallowed.

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

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. See Section 11 Note 1

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. See Section 11

Potential Chronic Health Effects:

Carcinogenic Effects: See Section 11

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. Sensitized individuals may experience an allergic skin rash.

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	64741-52-5	30 - 60%
Residual Oil	64742-57-0	10 - 30%
Nickel (Metallic)	7440-02-0	20-30%

Note: The remaining ingredients of this preparation are not classified as hazardous per 29 CFR 1910.1200 Subpart Z



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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 allow material to come into contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Do not breathe vapors. 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	64741-52-5	5 mg/m ³ (oil mist)*	10 mg/m ³ (oil mist)*	Not Established	Not Established	Not Established
Residual Oil	64742-57-0	Not Established	Not Established	Not Established	Not Established	Not Established
Nickel (Metallic)	7440-02-0	Not Established	Not Established	1.51 mg/m ³ (dust /mist)	2 mg/m ³ (dust /mist)	1.51 mg/m ³ (dust /mist) TWA CANADA 2 mg/m ³ (dust /mist) STEL CANADA

* 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:	Paste	Color:	Silver Gray
Odor/Taste:	Slight Petroleum	Vapor Pressure:	<0.01 mmHg
Solubility Description:	Nil	Evaporation Rate:	<0.1 (BuAc=1)
Boiling Point:	>274°C (525°F)	Flash Point:	>221°C(430°F)
Specific Gravity (Water=1):	1.0 – 1.2 @ 20 °C	Flash Point Method:	Tag-Closed Cup.
Vapor Density (air=1):	>5	Auto Ignition Temperature:	232°- 260°C(450° -500°F)
Flammable limits (estimated):	LOWER: 0.9% UPPER: 7%	Partition Coefficient (octanol/water):	<1
pH:	Not Determined	Viscosity:	Not Established
Decomposition Temperature	Not Determined	Odor threshold	Not Determined

Section 10 – Chemical Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from ignition sources.
Incompatibility:	Reactive or incompatible with oxidizing agents.
Hazardous Decomposition:	These products are carbon oxides (CO, CO2)
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	64742-57-0	Not Established	Not Established
Nickel (Metallic)	7440-02-0	See Note 1	



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Note 1: Health Hazards Supplement

Inhalation: The National Toxicology Program has listed nickel and nickel oxide as possible cancer hazards. The International Agency for Research on Cancer concluded there was sufficient evidence that nickel refining was carcinogenic to humans and limited evidence that nickel and certain nickel compounds were carcinogenic to humans. IARC could not state with certainty which forms of nickel are human carcinogens, but said "...metallic nickel seems less likely to be so than nickel subsulphide or nickel oxides." The inhalation of nickel oxide, even at high concentrations, and of nickel powder has not resulted in an increased incidence of malignant tumors in rodents. Studies of workers exposed to nickel powder and to dust and fumes generated in the production of nickel alloys and of stainless steel have not indicated a respiratory cancer hazard. Inhalation of airborne nickel powder at concentrations fifteen times the PEL irritated the respiratory tract in rodents. Inhalation of nickel oxide impaired long-term lung clearance in rats and, at concentrations fifty times the PEL, produced pneumoconiosis in hamsters. The acute inhalation toxicity for a rat is modeled and calculated to be 0.015 mg/L.

Skin Contact: Repeated contact with metallic nickel can cause nickel sensitivity resulting in allergic skin rashes or skin sensitization.

Wounds: Nickel powder and nickel oxide have caused tumors at the site of injection in rodents. However, studies of nickel-containing prostheses do not suggest a significant risk for humans.

Ingestion: Nickel metal and nickel oxide have low acute oral toxicities; rat LD₅₀ is <9000 mg/kg and >5000 mg/kg, respectively. The U.S. Food and Drug Administration conclude that nickel and its inorganic compounds are not carcinogenic when ingested.

Section 12 – Ecological Information

Mobility: Partially absorbed into soil. **Persistence and degradability:** Slightly biodegradable.

Bioaccumulative potential: Minimal bioaccumulation potential **Other adverse effects:** None known.

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	Oncrohynchus mykiss	>5000 mg/L
	Nickel (Metallic)	7440-02-0	96h-LC ₅₀	Brachydanio rerio	>100 mg/L
Acute Toxicity on Daphnia	Petroleum Oil	64742-52-5	48h-LC ₅₀	Daphnia Magna	>1000 mg/L
	Nickel (Metallic)	7440-02-0	48h-LC ₅₀	Daphnia Magna	>100 mg/L
Bacterial inhibition	Petroleum Oil	64742-52-5	Bacterial Growth Inhibition	Pseudomonas fluorescens (Bacteria)	> 1000 mg/L
Growth inhibition of algae	Petroleum Oil	64742-52-5	96h-EC ₅₀	Algae	>1000 mg/L
	Nickel (Metallic)	7440-02-0	72h-EC ₅₀	Algae	0.18 mg/L
Bioaccumulation in fish	No data Available				



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Section 13 – Disposal Considerations

Waste Status: None.

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

Bulk versions of this product are not regulated by any mode of transportation.

Section 15 – Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: None

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): 100 lbs Nickel 7440-02-0

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:

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): Nickel 7440-02-0 30% max

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

New Jersey RTK:

Petroleum Oil 64742-52-5 • Residual Oil 64742-01-4 • Aluminum Complex Soap 82980-54-9 • Nickel 7440-02-0 •

California: This product contains 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.



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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: Bulk
Class D2A, 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# 13908 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA Flammability Health Reactivity
	Health:	1	Health:	[/]1	
	Flammability:	1	Flammability:	1	
	Reactivity	0	Physical Hazard:	0	

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