



MATERIAL SAFETY DATA SHEET

LPS® Nickel Anti-Seize

Revision Date: February 21, 2012

Supersedes: June 4, 2010

Section 1 • Product and Company Identification

Product Name: LPS® Nickel Anti-Seize

Part Number(s): 03908, 03910, 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 Road, Tucker, GA, USA 30084
TEL: USA & Canada: 1 800 241-8334
Outside USA and Canada: +1 770 243-8800
FAX: USA & Canada: 1 800 543-1563
Outside USA and Canada: +1 770 243-8899

Emergency Telephone Number: Chemtrec: USA & Canada: 1 800 424-9300
Outside USA and Canada: +1 703 527-3887

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

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: Not applicable

Bulk: CAUTION: May cause eye and skin irritation.

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.

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

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: 2 IARC: Group 2B OSHA No ACGIH: A5 (No)

Mutagenic Effects: None

Teratogenic Effects: None

Target Organs: None



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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
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	45 - 65%
Nickel (metallic)	7440-02-0	15 - 25%
Residual Oils (Petroleum), Hydrotreated	64742-57-0	5 - 20%

Section 4 • First Aid Measures

Eyes:	Check for and remove contact lenses. Immediately, 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 if irritation persists.
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.



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Section 5 • Fire Fighting Measures

Products of Combustion:	Carbon monoxide, carbon dioxide, sulphur oxides, some metallic oxides.		
General Fire Hazards:	High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.		
Firefighting media:	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use 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.		
Special Remarks on Explosion Hazards:	None		

Section 6 • Accidental Release Measures

Containment 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.
Clean-Up Procedures:	Contain and recover spilled material when possible.	
Evacuation Procedures:	Ventilate area of leak or spill. Keep unnecessary and unprotected people away.	
Special Procedures:	Ventilate area. Wear personal protective equipment during cleanup.	

Section 7 • Handling and Storage

Handling:	Avoid contact with skin and eyes. Wash thoroughly after handling.
Storage:	Keep in original container. Keep container tightly closed. Store in a well ventilated area away from sources of ignition.
Precautions to be taken in handling and storage:	Store all materials in a dry, well-ventilated area. Avoid breathing vapors.



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Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA	ACGIH	NIOSH	Supplier
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	5 mg/m3 (oil mist) PEL	5 mg/m3 (oil mist) TLV 10 mg/m3 (oil mist) STEL	5 mg/m3 (oil mist) TWA 10 mg/m3 (oil mist) STEL	5 mg/m3 TWA
Nickel (metallic)	7440-02-0	Not established	1.5 mg/m3 (inhalable fraction) TLV	Not established	None reported
Residual Oils (Petroleum), Hydrotreated	64742-57-0	5 mg/m3 (oil mist) PEL	5 mg/m3 (oil mist) TLV 10 mg/m3 (oil mist) STEL	5 mg/m3 (oil mist) TWA 10 mg/m3 (oil mist) STEL	None reported

Engineering Controls: 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, using chemical resistant gloves is recommended.

Respiratory protection: Typical use of this product under normal conditions does not require the use of respiratory protection. In the case of extreme temperatures, a dry residue will result when the grease and oils burn off. Where workers are exposed to the dust during removal of the film, use of air-purifying respirators or dust masks is suggested.

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:	Slight Petroleum	Evaporation Rate:	< 0.01 (BuAc = 1)
Solubility Description:	Not soluble in water	Flash Point:	221°C (430°F)
Boiling Point:	> 260°C (500°F)	Flash Point Method:	Open Cup
Specific Gravity (H2O=1):	1.00 - 1.20 @ 20°C	Decomposition Temperature:	Not established
Vapor Density (air = 1):	> 5	Auto ignition temperature:	> 260°C (500°F)
Vapor Pressure:	< 0.08 mm Hg @ 20°C	Flammable limits (estimated):	LOWER: 0.9% UPPER: 7.0%
Rule 1171 PPc:	Not established	Partition Coefficient (octanol/water):	< 1
V.O.C. Content:	Aerosol: Not applicable Bulk: None	Odor Threshold:	Not established
Melting Point:	Not established	Viscosity:	Not established
pH:	Not applicable	Volatiles:	Not established
Heat of combustion:	Aerosol: Not applicable Bulk: Not established		

Section 10 • Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from ignition sources and extreme temperatures.
Incompatibility:	This product can react vigorously with acids to liberate hydrogen, which can form explosive mixtures with air. Under special conditions, nickel can react with carbon monoxide in reducing atmospheres to form nickel carbonyl, Ni(CO) ₄ , a toxic gas. Metal powders when heated in reducing atmospheres may become pyrophoric.
Hazardous Decomposition:	These products are carbon oxides (CO, CO ₂), sulphur oxides, some metallic oxides.
Hazardous Polymerization:	Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

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

Component	CASRN	LC-50	LD-50
Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	2.18 mg/L / rat / 4 hr	> 5000 mg/kg / oral / rat > 2000 mg/kg / dermal / rabbit
Residual Oils (Petroleum), Hydrotreated	64742-57-0	2.18 mg/L / rat / 4 hr	> 2000 mg/kg / oral / rat* > 2000 mg/kg / dermal / rabbit*
Nickel (metallic)	7440-02-0	See Note 1	

* Supplier Data



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Note 1: Health Hazards Supplement

Inhalation:

The National Toxicology Program (NTP) has listed nickel and nickel oxide as possible cancer hazards. The International Agency for Research on Cancer (IARC) 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. The IARC could not state with certainty which forms of nickel are human carcinogens, but said "... metallic nickel seems less likely to be so that nickel subsulphide or nickel oxides." The inhalation of nickel oxide, even at high concentrations, and of nickel powder has not resulted in an increase 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 skin contact with metallic nickel can cause nickel sensitivity resulting in allergic skin rashes or skin sensitization.

Wounds:

Nickel powder and nickel oxides 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 US Food and Drug Administration (FDA) concludes that nickel and its inorganic compounds are not carcinogenic when ingested.

Section 12 • Ecological Information

Mobility:	Non-volatile. Partially absorbed by soil.	Persistence / Degradability:	Only 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.

Ecotoxicity

Effects on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	96-hr LC50	Oncorhynchus Mykiss	> 5000 mg/L
	Residual Oils (Petroleum), Hydrotreated	64742-57-0	96-hr LC50	Oncorhynchus Mykiss	> 5000 mg/L
	Nickel (metallic)	7440-02-0	96-hr LC50	Brachydanio Rerio	> 100 mg/L
Acute Toxicity on Daphnia	Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	48-hr LC50	Daphnia Magna	> 1000 mg/L
	Residual Oils (Petroleum), Hydrotreated	64742-57-0	48-hr LC50	Daphnia Magna	> 1000 mg/L
	Nickel (metallic)	7440-02-0	48-hr LC50	Daphnia Magna	> 100 mg/L
Bacterial Inhibition	Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	Bacterial Growth Inhibition	Pseudomonas Fluorecens (Bacteria)	> 1000 mg/L
	Residual Oils (Petroleum), Hydrotreated	64742-57-0	Bacterial Growth Inhibition	Pseudomonas Fluorecens (Bacteria)	> 1000 mg/L
Growth inhibition of algae	Distillates (Petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	Growth Inhibition Concentration	Algae	0.15 mg/L
	Residual Oils (Petroleum), Hydrotreated	64742-57-0	96-hr EC50	Algae	> 1000 mg/L
	Nickel (metallic)	7440-02-0	96-hr EC50	Algae	0.18 mg/L
Bioaccumulation in fish	No data available				

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Section 13 • Disposal Considerations

Waste Status: In its purchased form, this material does not meet the definition of a RCRA hazardous waste (40 CFR 261).

Disposal: Waste must be disposed of in accordance with any and all applicable environmental control rules and/or 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 • Transport Information

This product is not regulated by any mode of transportation.

The preceding information is subject to change and must be verified prior to shipment. It is the responsibility of anyone offering hazardous materials for shipment to ensure compliance with all applicable regulations.

Section 15 • Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: None

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

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): Nickel

State Regulations

California: This product contains chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

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

New Jersey Right to Know:

Aerosol: Not applicable

Bulk: Distillates (Petroleum), Hydrotreated Heavy Naphthenic 64742-52-5 • Nickel 7440-02-0 • Residual Oil (Petroleum), Hydrotreated 64742-57-0 • Potassium Aluminum Silicate 12001-26-2 • Aluminum Complex Soap 94166-87-7

International Regulations

Canadian Environmental Protection Act (CEPA):

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:

Class D2A, Class D2B





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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 MSDS Preparation Responsible Name: Elena Badiuzzi Compliance Manager Telephone: +1 770 243-8800	HMIS 1996	HMIS III	Health		Reactivity
	Health: 1	Health: [] 1			
	Flammability: 1	Flammability Aerosol: NA Flammability Bulk: 1			
	Reactivity: 0	Physical Hazard Aerosol: NA Physical Hazard Bulk: 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.

Elena Badiuzzi, Compliance Manager
LPS Laboratories, a division of Illinois Tool Works