



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	LPS® 2	
Version #	01	
Issue date	09-11-2014	
CAS #	Mixture	
Part Number	C00222, C02128, C00205, C00255	
Product use	An industrial lubricant designed to displace moisture from equipment, provide heavy-duty lubrication and rust prevention.	
Manufacturer information	LPS Laboratories, a division of Illinois Tool Works, Inc. 4647 Hugh Howell Rd Tucker, Georgia 30084 United States www.lpslabs.com 1-800-241-8334/770-243-8800 Chemtrec1-800-424-9300	
Supplier	Not available.	

2. Hazards Identification

Emergency overview	DANGER Combustible liquid. May be ignited by heat, sparks or flames. HARMFUL OR FATAL IF SWALLOWED. Irritating to eyes and skin. May cause drowsiness and dizziness.
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Avoid contact with eyes. Causes eye irritation.
Skin	Avoid contact with the skin. Causes skin irritation.
Inhalation	Do not breathe dust/fume/gas/mist/vapors/spray. Prolonged inhalation may be harmful.
Ingestion	Harmful: may cause lung damage if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Do not ingest.
Signs and symptoms	Aspiration may cause pulmonary edema and pneumonitis. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Potential environmental effects	Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
Distillates Petroleum, Hydrotreated Light	64742-47-8	70 - 80
Petroleum Oil	64742-52-5	20 - 30

4. First Aid Measures

First aid procedures	
Inhalation	Move to fresh air. Get medical attention, if needed.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Eye contact	Flush eyes immediately with large amounts of water. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties Combustible by WHMIS criteria. Heat may cause the containers to explode.

Extinguishing media

Suitable extinguishing media Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Dry chemicals. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Fire fighting equipment/instructions Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to heat with water spray and remove container, if no risk is involved. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Cool containers exposed to flames with water until well after the fire is out.

Explosion data

Sensitivity to static discharge None known.

Sensitivity to mechanical impact None known.

Hazardous combustion products May include oxides of carbon.

6. Accidental Release Measures

Personal precautions Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up Extinguish all flames in the vicinity. Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Scrub the area with detergent and water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.

Other information Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. All equipment used when handling the product must be grounded. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas. Avoid release to the environment.

Storage Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials. Store in a well-ventilated place. Keep out of the reach of children. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH Components	Type	Value	Form
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)	TWA	5 mg/m3	Oil mist
Petroleum Oil (CAS 64742-52-5)	TWA	5 mg/m3	Oil mist
Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)			
Components	Type	Value	Form
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)	TWA	200 mg/m3	Non-aerosol.
U.S. - OSHA			
Components	Type	Value	Form
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)	PEL	5 mg/m3	Oil mist
Petroleum Oil (CAS 64742-52-5)	PEL	5 mg/m3	Oil mist

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Canada - British Columbia OELs: Skin designation

Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) Can be absorbed through the skin.

Engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection Avoid contact with the skin. Wear appropriate chemical resistant clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection Chemical resistant gloves are recommended.

9. Physical & Chemical Properties

Appearance Liquid.

Physical state Liquid.

Form Liquid.

Color Brown.

Odor Slight petroleum odor. Cherry.

Odor threshold Not established

pH Not applicable

Vapor pressure < 0.05 mm Hg @ 20°C

Vapor density 4.7 (air = 1)

Boiling point 383 °F (195 °C)

Melting point/Freezing point < -58 °F (< -50 °C)

Solubility (water) < 3 %

Specific gravity Not available.

Relative density Not available.

Flash point	174.2 °F (79.0 °C) Tag Closed Cup (dispensed liquid)
Flammability limits in air, upper, % by volume	7 %
Flammability limits in air, lower, % by volume	0.6 %
Auto-ignition temperature	> 442.4 °F (> 228 °C)
VOC	0 % per US State & Federal Consumer Product Regulations
Evaporation rate	< 0.1 (BuA = 1)
Viscosity	< 7 cSt @ 25°C
Percent volatile	92 - 95 %
Partition coefficient (n-octanol/water)	< 1
Other data	
Decomposition temperature	Not established
Heat of combustion	> 30 kJ/g

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Oxidizing agents.
Hazardous decomposition products	Carbon oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg > 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Cat	> 6.4 mg/l, 6 Hours
	Rat	> 7.5 mg/l, 6 Hours > 4.3 mg/l, 4 Hours > 0.1 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Petroleum Oil (CAS 64742-52-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg > 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	2.18 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	5000 mg/kg
Acute effects	May be fatal if swallowed and enters airways. Narcotic effects.	
Sensitization	Not classified.	

Local effects	Irritating to eyes. Irritating to skin. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic effects	Prolonged inhalation may be harmful.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive effects	This product is not expected to cause reproductive or developmental effects.
Teratogenicity	Not available.
Symptoms and target organs	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Exposure may cause temporary irritation, redness, or discomfort. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Decrease in motor functions. Behavioral changes.
Synergistic materials	Not available.

12. Ecological Information

Ecotoxicological data

Components	Species		Test Results
Distillates Petroleum, Hydroteated Light (CAS 64742-47-8)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.		
Aquatic toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Persistence and degradability	Not inherently biodegradable.		
Partition coefficient			
LPS® 2		< 1	
Other adverse effects	None known.		

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

TDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled

WHMIS classification

B3 - Combustible Liquids
D2B - Other Toxic Effects-TOXIC

WHMIS labeling**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information**Disclaimer**

LPS Laboratories cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

Prepared by

Not available.