



SAFETY DATA SHEET

1. Identification

Product identifier LPS® Clear Penetrating Grease

Other means of identification

Part Number 06716

Recommended use A clear, fast penetrating grease designed to go on wet and quickly set-up as a tacky grease.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Manufacturer

Company name LPS Laboratories, a division of Illinois Tool Works, Inc.

Address 4647 Hugh Howell Rd.
Tucker, GA 30084
(U.S.A.)

Country (U.S.A.)

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Website www.lpslabs.com

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2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Health hazards Skin corrosion/irritation Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Causes skin irritation. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves.

Response IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Not classified.

3. Composition/information on ingredients

Mixtures

Hazardous components			
Chemical name	Common name and synonyms	CAS number	%
HEPTANE		142-82-5	27.61
Petroleum Gases, Liquefied, Sweetened		68476-86-8	10 - < 20

Hazardous components			
Chemical name	Common name and synonyms	CAS number	%
Distillates Petroleum, Hydrotreated Light		64742-47-8	5 - < 10
Other components below reportable levels			50 - < 60

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention if symptoms persist.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Decrease in motor functions. Behavioral changes. Discomfort in the chest. Shortness of breath. Coughing. Skin irritation. Defatting of the skin. Rash. Irritating to mouth, throat, and stomach. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media	Powder. Dry chemicals. Carbon dioxide (CO2). Foam, water spray or fog.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
Fire-fighting equipment/instructions	Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up.
Specific methods	In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use water spray to cool unopened containers. Move container from fire area if it can be done without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Ventilate closed spaces before entering them. Avoid inhalation of vapors and spray mists. Pay attention to flashback.
Methods and materials for containment and cleaning up	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas.
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Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
HEPTANE (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
HEPTANE (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
HEPTANE (CAS 142-82-5)	Ceiling	1800 mg/m3 440 ppm
	TWA	350 mg/m3 85 ppm

Biological limit values

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

Appropriate engineering controls

Not available.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Chemical resistant gloves are recommended.

Other

Avoid contact with the skin. Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

Avoid breathing dust/fume/gas/mist/vapors/spray. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Not applicable.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Keep away from food and drink. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Liquid.

Physical state

Gas.

Form

Aerosol.

Color

Translucent.

Odor

Slight petroleum odor

Odor threshold

Not available.

pH

Not available.

Melting point

Not available.

Boiling point

Not available.

Flash point

59.00 °F (15.00 °C) Tag Closed Cup

Evaporation rate

> 1 (BuAc = 1)

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

> 1 (air = 1)

Relative density	Not available.
Solubility(ies)	Not soluble in water
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 392 °F (> 200 °C)
Decomposition temperature	Not available.
Viscosity	~4000 cSt @25°C
Other information	
Heat of combustion	> 30 kJ/g
Percent volatile	40 - 50 %
Specific gravity	0.73 - 0.75 @ 20°C
VOC (Weight %)	42.6 % per U.S. State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity	Strong oxidizing agents. Strong acids.
Chemical stability	Material is stable under normal conditions. Instability caused by elevated temperatures.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. This product may react with oxidizing agents. Reacts violently with strong acids.
Incompatible materials	Avoid contact with acids and oxidizing substances.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Ingestion	May be harmful if swallowed and enters airways.
Inhalation	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Skin contact	Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact	May be irritating to eyes.

Symptoms related to the physical, chemical and toxicological characteristics Discomfort in the chest. Shortness of breath. Narcosis. Decrease in motor functions. Coughing. Irritating to eyes, respiratory system and skin. Defatting of the skin. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Product	Species	Test Results
LPS® Clear Penetrating Grease (CAS Mixture)		
Acute		
<i>Inhalation</i>		
LC50	Rat	373.0533 mg/l, 4 Hours, estimated
LD50	Mouse	271.6407 mg/l, 2 Hours, estimated
<i>Oral</i>		
LD50	Mouse	2354.7881 g/kg, estimated
	Rabbit	2354.7881 g/kg, estimated
<i>Other</i>		
LD50	Mouse	801.4908 mg/kg, estimated
		156.9859 g/kg, estimated
Components	Species	Test Results
HEPTANE (CAS 142-82-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	103 mg/l, 4 Hours
LD50	Mouse	75 mg/l, 2 Hours

Components	Species	Test Results
<i>Other</i> LD50	Mouse	222 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Narcotic effects. Central nervous system.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful. Prolonged or repeated contact may cause drying, cracking, or irritation.
Further information	Symptoms may be delayed.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Product	Species	Test Results
LPS® Clear Penetrating Grease (CAS Mixture)		
Fish	LC50	Fish
		45.31 mg/l, 96 hours, estimated
Components	Species	Test Results
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		2.9 mg/l, 96 hours
HEPTANE (CAS 142-82-5)		
Aquatic		
Fish	LC50	Mozambique tilapia (Tilapia mossambica)
		375 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	Not inherently biodegradable.
Bioaccumulative potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
HEPTANE	4.66
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	D003: Waste Reactive material D001: Waste Flammable material with a flash point <140 F
Waste from residues / unused products	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). Avoid discharge into water courses or onto the ground.
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. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, (n-heptane), MARINE POLLUTANT
Transport hazard class(es)	2.1
Subsidiary class(es)	Not available.
Packing group	Not available.
Special precautions for user	Not available.
Labels required	2.1
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	304
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Subsidiary class(es)	-
Packaging group	Not available.
Environmental hazards	No
Labels required	Not available.
ERG Code	10L
Special precautions for user	Not available.

IMDG

UN number	UN1950
UN proper shipping name	Aerosol, (n-heptane), MARINE POLLUTANT
Transport hazard class(es)	2.1
Subsidiary class(es)	-
Packaging group	Not available.
Environmental hazards	
Marine pollutant	Yes
Labels required	2.1
EmS	F-D, S-U
Special precautions for user	Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

General information IMDG Regulated Marine Pollutant.

DOT



IATA; IMDG





15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - Yes
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance	No
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SARA 311/312 Hazardous chemical	No
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Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Food and Drug Administration (FDA)	Not regulated.
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US state regulations

US. Massachusetts RTK - Substance List

HEPTANE (CAS 142-82-5)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

HEPTANE (CAS 142-82-5)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
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)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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, including date of preparation or last revision

Issue date	04-03-2013
Version #	01
Further information	Not available.
HMIS® ratings	Health: 1 Flammability: 4 Physical hazard: 2
NFPA ratings	Health: 1 Flammability: 3 Instability: 0
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.