



# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Material name** LPS® Food Grade Chain Lubricant  
**Recommended use** A food grade chain lubricant for parts and equipment.  
**Version #** 02  
**CAS #** Mixture  
**Part Number** 06016  
**Supplier Name** MRO Chem Pty Ltd  
**Address** Level 19, 644 Chapel Street,  
South Yarra, Vic 3141, Australia.  
Tel: +61 (3)9823 6273  
Website: <http://www.mrochem.com.au>  
**In Case of Emergency** (Australia) +61 (4)3448 1129 (US) +1 703-527-3887  
**Manufacturer**  
**Company name** LPS Laboratories, a division of Illinois Tool Works, Inc.  
**Address** 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)  
**Website** <http://www.lpslabs.com>  
**E-mail** [sds@lpslabs.com](mailto:sds@lpslabs.com)

## 2. HAZARDS IDENTIFICATION

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** R10  
**Risk phrase(s)** R10 Flammable.  
**Safety phrase(s)** S1/2 Keep locked up and out of the reach of children.  
S9 Keep container in a well-ventilated place.  
S16 Keep away from sources of ignition - No smoking.  
S23 Do not breathe gas/fumes/vapor/spray.  
S36/37 Wear suitable protective clothing and gloves.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
White Mineral Oil	8042-47-5	> 60
Petroleum Gases, Liquified, Sweetened	68476-86-8	10 - < 30
Polybutene (Isobutylene/butene copolymer)	9003-29-6	10 - < 30
2,2-Dimethylbutane	75-83-2	< 10
2,3-Dimethylbutane	79-29-8	< 10
2-Methylpentane	107-83-5	< 10
3-Methylpentane	96-14-0	< 10
Other components below reportable levels		< 10

## 4. FIRST AID MEASURES

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention if symptoms persist.

**Skin contact** Wash off with warm water and soap. 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. If eye irritation persists: Get medical advice/attention.

**Ingestion** If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**General advice** IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. Show this safety data sheet to the doctor in attendance.

**Notes to physician**

Provide general supportive measures and treat symptomatically. Symptoms of overexposure can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting, and are reversible if exposure is stopped. Keep victim under observation. Symptoms may be delayed.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Foam, water spray or fog. Dry chemical powder.

**Extinguishing media which must not be used for safety reasons**

Do not use a solid water stream as it may scatter and spread fire.

**Unusual fire & explosion hazards**

Heat may cause the containers to explode. Ruptured cylinders may rocket. Vapors may travel considerable distance to a source of ignition and flash back.

**Specific hazards**

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

**Specific methods**

Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out.

**HAZCHEM code**

None.

**Hazardous combustion products**

May include oxides of carbon.

**General fire hazards**

Flammable aerosol.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Wear appropriate protective equipment and clothing during clean-up. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Ensure adequate ventilation. Avoid inhalation of vapors or mists. For personal protection, see section 8 of the MSDS.

**Environmental precautions**

Contact local authorities in case of spillage to drain/aquatic environment. Avoid release to the environment.

**Containment procedures**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk.

**Methods for cleaning up**

Eliminate ignition sources including sources of electrical, static or frictional sparks. Ventilate the contaminated area. Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Do not allow material to contaminate ground water system. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Wear appropriate protective equipment and clothing during clean-up. For waste disposal, see section 13 of the MSDS.

**7. HANDLING AND STORAGE****Handling**

Keep away from sources of ignition - No smoking. Do not smoke. Take precautionary measures against static discharges. Do not get in eyes, on skin, on clothing.

**Storage**

Keep out of the reach of children. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Keep away from heat and sources of ignition. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS).

**Further information**

Take measures to prevent the build up of electrostatic charge. None known.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Occupational exposure limits****US. ACGIH Threshold Limit Values****Components****Type****Value**

2,2-Dimethylbutane (CAS  
75-83-2)

STEL

1000 ppm

TWA

500 ppm

2,3-Dimethylbutane (CAS  
79-29-8)

STEL

1000 ppm

TWA

500 ppm

2-Methylpentane (CAS  
107-83-5)

STEL

1000 ppm

TWA

500 ppm

3-Methylpentane (CAS  
96-14-0)

STEL

1000 ppm

TWA

500 ppm

**Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)****Components****Type****Value**

2,2-Dimethylbutane (CAS  
75-83-2)

STEL

3500 mg/m3

**Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)**

Components	Type	Value
	TWA	1000 ppm 1760 mg/m <sup>3</sup> 500 ppm
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Recommended monitoring procedures</b>		
<b>Additional exposure data</b>	Not available.	
<b>Engineering measures to reduce exposure</b>	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.	
<b>Personal protective equipment</b>		
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required. 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.	
<b>Hand protection</b>	Chemical resistant gloves are recommended. Use protective gloves made of: Nitrile.	
<b>Eye protection</b>	Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain and emergency showers are recommended.	
<b>Skin and body protection</b>	Avoid contact with the skin. Use personal protective equipment as required.	
<b>Environmental exposure controls</b>	Contain spills and prevent releases and observe national regulations on emissions.	
<b>Hygiene measures</b>	When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Liquid.
<b>Physical state</b>	Gas.
<b>Form</b>	Aerosol.
<b>Color</b>	Clear, Colorless.
<b>Odor</b>	Mild. Hydrocarbon-like.
<b>Odor threshold</b>	Not established
<b>pH</b>	Not applicable
<b>Vapor pressure</b>	2782 mm Hg @ 20°C
<b>Vapor density</b>	~3 (air=1)
<b>Boiling point</b>	345.2 °F (174 °C)
<b>Melting point/Freezing point</b>	Not established
<b>Solubility (water)</b>	Not soluble in water
<b>Specific gravity</b>	0.85 - 0.87 @ 20°C
<b>Flash point</b>	-20.0 °F (-28.9 °C) Tag Closed Cup (dispensed liquid)
<b>Flammability limits in air, upper, % by volume</b>	9.5 % (estimated)
<b>Flammability limits in air, lower, % by volume</b>	1 % (estimated)
<b>Auto-ignition temperature</b>	> 509 °F (> 265 °C)
<b>VOC</b>	17.7 % per State and Federal Consumer Product Regulations
<b>Evaporation rate</b>	~8.1
<b>Viscosity</b>	164 cP @ 25°C
<b>Percent volatile</b>	15 - 20 %
<b>Partition coefficient (n-octanol/water)</b>	Not established
<b>Other data</b>	
<b>Decomposition temperature</b>	Not established
<b>Flammability (solid, gas)</b>	Flammable gas.
<b>Heat of combustion</b>	> 30 kJ/g

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Direct sources of heat. Avoid high temperatures. Aerosol containers are unstable at temperatures above 50°C. Contact with incompatible materials.
<b>Materials to avoid</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Carbon oxides.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Toxicological data

Components	Species	Test Results
Polybutene (Isobutylene/butene copolymer) (CAS 9003-29-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 3.8 mg/l
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
White Mineral Oil (CAS 8042-47-5)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 4.5 mg/l
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg

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

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<b>Routes of exposure</b>	Inhalation. Skin contact. Eye contact. Ingestion.
<b>Chronic toxicity</b>	Prolonged exposure may cause chronic effects.
<b>Sensitization</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductivity</b>	Based on available data, the classification criteria are not met.
<b>Local effects</b>	Prolonged or repeated exposure may cause headache. Irritating to eyes and skin.
<b>Symptoms and target organs</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Shortness of breath. Coughing. Behavioral changes. Decrease in motor functions.
<b>Further information</b>	Symptoms may be delayed.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Mobility</b>	The product is immiscible with water and will spread on the water surface.
<b>Bioaccumulation</b>	No data available.

### Bioaccumulative potential

#### Octanol/water partition coefficient log Kow

2,2-Dimethylbutane	3.82
2,3-Dimethylbutane	3.42
2-Methylpentane	3.74
3-Methylpentane	3.6

<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Aquatic toxicity</b>	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.

Other adverse effects Not available.

### 13. DISPOSAL CONSIDERATIONS

**Disposal instructions** Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Contents under pressure. Do not incinerate sealed containers. 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). 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.

### 14. TRANSPORT INFORMATION

#### ADG

**UN number** UN1950  
**UN proper shipping name** AEROSOLS  
**Transport hazard class(es)**  
**Class** 2  
**Subsidiary risk** -  
**Packing group** Not applicable.  
**Environmental hazards** Not available.  
**Hazchem code** 2YE  
**Special precautions for user** Read safety instructions, MSDS and emergency procedures before handling.

#### IATA

**UN number** UN1950  
**UN proper shipping name** Aerosols, flammable  
**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Packing group** Not applicable.  
**Environmental hazards** No.  
**ERG Code** 10L  
**Special precautions for user** Read safety instructions, MSDS and emergency procedures before handling.  
**Other information**  
**Passenger and cargo aircraft** Allowed.  
**Cargo aircraft only** Allowed.

#### IMDG

**UN number** UN1950  
**UN proper shipping name** AEROSOLS  
**Transport hazard class(es)**  
**Class** 2  
**Subsidiary risk** -  
**Packing group** Not applicable.  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** F-D, S-U  
**Special precautions for user** Read safety instructions, MSDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

ADG; IATA; IMDG



## 15. REGULATORY INFORMATION

**National regulations** This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.) No poison schedule number allocated.

**Australia HVIC: Listed substance**

White Mineral Oil (CAS 8042-47-5) Listed.

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
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)	No
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 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

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.

### Issue date

02-13-2013

### Revision date

10-03-2013

### This data sheet contains changes from the previous version in section(s):

This document has undergone significant changes and should be reviewed in its entirety.