



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material name	LPS® Belt Dressing
Recommended use	A non-chlorinated, non-drying, water resistant spray dressing for extending the life of rubber drive belts by improving traction and allowing runs under reduced belt tension.
Version #	02
CAS #	Mixture
Part Number	02216
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

2. HAZARDS IDENTIFICATION

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

Classification	F+;R12, Xi;R38, R67, N;R50/53
Risk phrase(s)	R12 Extremely flammable. R38 Irritating to skin. R67 Vapors may cause drowsiness and dizziness. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrase(s)	S1/2 Keep locked up and out of the reach of children. S7/9 Keep container tightly closed and in a well-ventilated place. S16 Keep away from sources of ignition - No smoking. S23 Do not breathe gas/fumes/vapor/spray. S24 Avoid contact with skin. S29 Do not empty into drains. S33 Take precautionary measures against static discharges. S57 Use appropriate container to avoid environmental contamination. S60 This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
Heptane	142-82-5	30 - 60
Petroleum Gases, Liquified, Sweetened	68476-86-8	30 - 60
Polybutene (Isobutylene/butene copolymer)	9003-29-6	10 - < 30

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. Call a physician if symptoms develop or 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	Flush eyes immediately with large amounts of water. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
General advice	In case of shortness of breath, give oxygen. IF exposed or concerned: Get medical advice/attention. Keep victim under observation. Keep victim warm.
Notes to physician	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical powder. Water Spray or Fog. Foam. Carbon dioxide (CO ₂).
Extinguishing media which must not be used for safety reasons	Do not use water jet as an extinguisher, as this will spread the fire.
Unusual fire & explosion hazards	Container may explode in heat of fire.
Specific hazards	Pressurized container may explode when exposed to heat or flame.
Special protective equipment for fire-fighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Specific methods	Move containers from fire area if you can do so without risk.
HAZCHEM code	None.
General fire hazards	Extremely flammable aerosol.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Do not touch or walk through spilled material. 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.
Containment procedures	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). If possible, turn leaking containers so that gas escapes rather than liquid. Collect spillage.
Methods for cleaning up	Should not be released into the environment. Prevent product from entering drains. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. For waste disposal, see section 13 of the MSDS.

7. HANDLING AND STORAGE

Handling	Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. 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. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Provide adequate ventilation. Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Wear appropriate personal protective equipment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Storage	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Keep in an area equipped with sprinklers. Store in a place accessible by authorized persons only. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Store away from incompatible materials (see Section 10 of the MSDS). Avoid exposure - obtain special instructions before use. Keep out of the reach of children.
Further information	Take measures to prevent the build up of electrostatic charge.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. ACGIH Threshold Limit Values

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

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

Components	Type	Value
Heptane (CAS 142-82-5)	STEL	2050 mg/m ³
		500 ppm
	TWA	1640 mg/m ³
		400 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Heptane (CAS 142-82-5)	STEL	2050 mg/m ³
		500 ppm
	TWA	1640 mg/m ³
		400 ppm

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

Additional exposure data	Not available.
Engineering measures to reduce exposure	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.
Personal protective equipment	
Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Hand protection	Chemical resistant gloves are recommended. Glove selection must take into account any solvents and other hazards present.
Eye protection	Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.
Skin and body protection	Chemical resistant gloves.
General	Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Wear suitable protective equipment.
Environmental exposure controls	Contain spills and prevent releases and observe national regulations on emissions.
Hygiene measures	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

Appearance	Liquid.
Physical state	Gas.
Form	Aerosol.
Color	Clear, Colorless
Odor	Hydrocarbon-like.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	195.8 °F (91 °C) (concentrate)
Melting point/Freezing point	Not available.
Solubility (water)	0 %
Specific gravity	0.67 - 0.69 @ 20 °C
Flash point	19.4 °F (-7.0 °C) Tag Closed Cup
Flammability limits in air, upper, % by volume	7 % estimated
Flammability limits in air, lower, % by volume	0.6 % estimated
Auto-ignition temperature	Not available.
VOC	90 % per U.S. State and Federal Consumer Product Regulations
Evaporation rate	> 1 BuAc
Percent volatile	90 %
Other data	
Density	5.74 lbs/gal
Flammability (solid, gas)	Flammable gas.
Heat of combustion	> 30 kJ/g

10. STABILITY AND REACTIVITY

Chemical stability	Risk of ignition.
Conditions to avoid	Avoid high temperatures. Aerosol containers are unstable at temperatures above 50°C. Contact with incompatible materials.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Components	Species	Test Results
Heptane (CAS 142-82-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 29.29 mg/l 103 mg/l, 4 Hours
LD50	Mouse	75 mg/l, 2 Hours
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
<i>Other</i>		
LD50	Mouse	222 mg/kg
Polybutene (Isobutylene/butene copolymer) (CAS 9003-29-6)		
Acute		
<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

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

Routes of exposure	Inhalation. Skin contact. Eye contact.
Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.
Chronic toxicity	May cause damage to organs through prolonged or repeated exposure.
Sensitization	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproductivity	Based on available data, the classification criteria are not met.
Epidemiology	No epidemiological data is available for this product.
Local effects	Irritating to eyes. Irritating to skin. Repeated or prolonged inhalation may cause toxic effects.
Symptoms and target organs	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Behavioral changes. Decrease in motor functions. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin.
Further information	Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Components	Species	Test Results
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.

Ecotoxicity	Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.
Persistence and degradability	No data is available on the degradability of this product.
Mobility	The product is immiscible with water and will spread on the water surface.
Bioaccumulation	

Bioaccumulative potential

Octanol/water partition coefficient log Kow

LPS® Belt Dressing	3.2
Heptane	4.66

Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	May cause long-term adverse effects in the aquatic environment.
Other adverse effects	None known.

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. Do not incinerate sealed containers. Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.
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. Avoid discharge into water courses or onto the ground. Dispose of in accordance with local regulations.
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, flammable, Marine Pollutant (Heptane)
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.

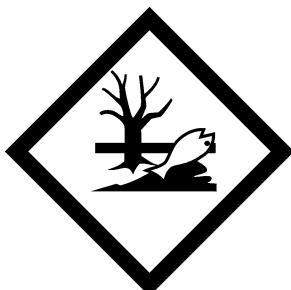
IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, flammable, (Heptane), MARINE POLLUTANT
Transport hazard class(es)	
Class	2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes
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



Marine pollutant



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

Heptane (CAS 142-82-5)

Listed.

Inventory status

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)	Yes
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	Yes
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

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

03-26-2013

Revision date

10-10-2013

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

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Ingredients
FIRE-FIGHTING MEASURES: Specific methods
EXPOSURE CONTROLS/PERSONAL PROTECTION: Hand protection
Physical & Chemical Properties: Multiple Properties
STABILITY AND REACTIVITY: Conditions to avoid
TOXICOLOGICAL INFORMATION: Symptoms and target organs
ECOLOGICAL INFORMATION: Other adverse effects
DISPOSAL CONSIDERATIONS: Waste from residues / unused products
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States
HazReg Data: North America
GHS: Classification