



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	LPS® 3 (Aerosol)	
Version #	04	
Issue date	08-29-2013	
Revision date	11-10-2014	
Supersedes date	10-25-2014	
CAS #	Mixture	
Part Number	C30316	
Product use	A specialized soft-film spray coating designed to prevent rust and corrosion on steel, aluminum and other metals.	
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 Chemtrec 1-800-424-9300	
Supplier	Not available.	

2. Hazards Identification

Emergency overview	DANGER Flammable aerosol. CONTENTS UNDER PRESSURE. Pressurized container may explode when exposed to heat or flame. Will be easily ignited by heat, spark or flames. Causes skin and eye irritation. Vapors 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. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Avoid breathing dust/fume/gas/mist/vapors/spray. Intentional misuse by concentrating and inhaling the product can be harmful or fatal.
Ingestion	Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Do not ingest.
Target organs	Eyes. Skin. Central nervous system. Respiratory system.
Chronic effects	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Potential environmental effects	Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Light Mineral Spirits	64742-88-7	40 - 50
1-butoxy-2-propanol	5131-66-8	1 - 10
ACETONE	67-64-1	1 - 10
CARBON DIOXIDE	124-38-9	1 - 5

Non-hazardous components	CAS #	Percent
Distillates Petroleum Hydrotreated Heavy	64742-54-7	1 - 10
Distillates Petroleum, Hydrotreated Light	64742-47-8	1 - 10

4. First Aid Measures

First aid procedures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. 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. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing 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.

Notes to physician

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.

General advice

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties

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

Extinguishing media

Suitable extinguishing media

Powder. Alcohol resistant foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

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

Protection of firefighters

Specific hazards arising from the chemical

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

Protective equipment for firefighters

Firefighters should wear full protective clothing including self contained breathing apparatus. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Explosion data

Sensitivity to static discharge

Yes

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. Keep out of low areas. Pay attention to flashback. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. 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. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Use water spray to reduce vapors or divert vapor cloud drift. Keep out of low areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Isolate area until gas has dispersed. Following product recovery, flush area with water. 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	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. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.
Storage	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. The pressure in sealed containers can increase under the influence of heat. 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. Store in a well-ventilated place. Keep container dry.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
ACETONE (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
ACETONE (CAS 67-64-1)	STEL	1800 mg/m3
	TWA	750 ppm
		1200 mg/m3
CARBON DIOXIDE (CAS 124-38-9)	STEL	500 ppm
	TWA	54000 mg/m3
		30000 ppm
		9000 mg/m3
		5000 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
ACETONE (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
CARBON DIOXIDE (CAS 124-38-9)	STEL	15000 ppm	
	TWA	5000 ppm	
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)	TWA	200 mg/m3	Non-aerosol.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
ACETONE (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
ACETONE (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
ACETONE (CAS 67-64-1)	STEL	2380 mg/m3
		1000 ppm
	TWA	1190 mg/m3
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm

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

Components	Type	Value
ACETONE (CAS 67-64-1)	PEL	2400 mg/m3
		1000 ppm
CARBON DIOXIDE (CAS 124-38-9)	PEL	9000 mg/m3
		5000 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
ACETONE (CAS 67-64-1)	50 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines**Canada - British Columbia OELs: Skin designation**

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

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin protection

Avoid contact with clothing. Wear suitable protective clothing. Chemical resistant gloves.

Respiratory protection

No personal respiratory protective equipment normally required. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection

Chemical resistant gloves are recommended.

9. Physical & Chemical Properties

Appearance	Cloudy. Liquid.
Physical state	Gas.
Form	Aerosol.
Color	Brown.
Odor	Mild. Cherry.

Odor threshold	Not available.
pH	Not applicable
Vapor pressure	2.6 mm Hg @ 20°C
Vapor density	4.8 (air = 1)
Boiling point	320 - 392 °F (160 - 200 °C)
Melting point/Freezing point	Not available.
Solubility (water)	insoluble
Specific gravity	0.81
Relative density	Not available.
Flash point	73.4 °F (23.0 °C) Tag Closed Cup dispensed liquid
Flammability limits in air, upper, % by volume	6 %
Flammability limits in air, lower, % by volume	0.6 %
Auto-ignition temperature	446 °F (230 °C)
VOC	75.58 % per U.S. State and Federal Consumer Product Regulations
Evaporation rate	0.2 (BuAc = 1)
Viscosity	200 - 800 cP
Percent volatile	78.45 %
Partition coefficient (n-octanol/water)	Not available.
Other data	
Density	6.82 lb/gal
Flammability (solid, gas)	Flammable gas.

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of explosion.
Conditions to avoid	Heat, flames and sparks. Aerosol containers are unstable at temperatures above 50°C. Avoid temperatures exceeding the flash point.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
1-butoxy-2-propanol (CAS 5131-66-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1400 mg/kg, 24 Hours
		1.59 ml/kg, 24 Hours
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 651 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	3300 mg/kg
		2.83 ml/kg

Components	Species	Test Results
ACETONE (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours
	Rabbit	> 9.4 ml/kg, 24 Hours
		> 7426 mg/kg, 24 Hours
		> 9.4 ml/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	55700 ppm, 3 Hours
		132 mg/l, 3 Hours
		76 mg/l, 4 Hours
		50.1 mg/l
		50.1 mg/l, 8 Hours
<i>Oral</i>		
LD50	Mouse	5.2 g/kg
	Rat	5800 mg/kg
		2.2 ml/kg
Distillates Petroleum Hydrotreated Heavy (CAS 64742-54-7)		
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
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
Light Mineral Spirits (CAS 64742-88-7)		
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

Components	Species	Test Results
<i>Oral</i> LD50	Rat	> 0.1 mg/l, 8 Hours > 5000 mg/kg
Acute effects		
Sensitization		Not expected to be hazardous by WHMIS criteria.
Local effects		Irritating to eyes and 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.
ACGIH Carcinogens		
ACETONE (CAS 67-64-1)		A4 Not classifiable as a human carcinogen.
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 expected to be hazardous by WHMIS criteria.
Symptoms and target organs		Irritating to eyes, respiratory system and skin. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Synergistic materials		No data available for this product.

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
ACETONE (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours
Ecotoxicity		Not expected to be harmful to aquatic organisms.
Environmental effects		Not classified as an environmental hazard.
Aquatic toxicity		Not classified.
Persistence and degradability		Not inherently biodegradable.
Partition coefficient		
ACETONE		-0.24
Mobility in environmental media		The product is immiscible with water and will spread on the water surface.
Other adverse effects		None known.

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 allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport Information

TDG

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
Special precautions for user	Not available.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
Special precautions for user	Not available.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No
EmS	Not available.
Special precautions for user	Not available.

IATA; IMDG; TDG



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	A - Compressed Gas B5 - Flammable Aerosols D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Material name: LPS® 3 (Aerosol)

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MSDS CANADA

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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)	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)	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)	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.

Prepared by

Not available.

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

Product and Company Identification: Alternate Trade Names
Regulatory Information: Canada
GHS: Qualifiers