MATERIAL SAFETY DATA SHEET
LPS® HardCoat Corrosion Inhibitor Aerosol

Revision 4 **Revision Date: 11/14/08** **Supercedes: 5/1/08**

Section 1 • Product and Company Identification

Product Name:	LPS® HardCoat Corrosion Inhibitor Aerosol
Part Number:	03316, C03316
Chemical Name:	Petroleum Hydrocarbon mixture
Product Use:	A spray corrosion inhibitor designed to displace water and penetrate to form a barrier against moisture, air, acids, alkali fumes, and other corrosive elements on metals parts.
Manufacturer Information:	LPS Laboratories, 4647 Hugh Howell Rd., Tucker, GA, USA 30084
TEL:	1 770-243-8880
Emergency Telephone Number:	1-800-424-9300 Chemtrec; Outside U.S.: (703) 527-3887
FAX:	1 770-243-8899
Website:	http://www.lpslabs.com

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably won't help the non-professional. LPS includes this "PLAIN LANGUAGE HAZARD SUMMARY" to address the questions and concerns of the average worker. If you have additional health, safety or product questions, don't hesitate to call us at 800/241-8334.

Worker Toxicity

LPS® HardCoat Corrosion Inhibitor Aerosol is an industrial chemical - a specialized coating designed to prevent rust and corrosion on steel, aluminum and other metals. It contains "mineral spirits" and mineral oil which can be irritating to skin at a minimum and if handled improperly can be dangerous. We suggest you wear gloves and avoid extended exposure to unprotected skin. Don't get it in your eyes (it stings), or breath large amounts of the vapor, (it will dry out your nasal passages and if you breathe large amounts in poorly ventilated areas it can make you dizzy and even sick). Don't spray LPS® HardCoat Corrosion Inhibitor Aerosol for extended periods without adequate ventilation. If you're going to perform work involving a lot of product in a poorly ventilated area, use of a respirator or self-contained breathing equipment may be required. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

LPS® HardCoat Corrosion Inhibitor Aerosol is flammable. Don't spray the product near ignition sources or open flame. For more flammability information, refer to MSDS sections 5 and 9.

Disposal

If LPS® HardCoat Corrosion Inhibitor Aerosol fails to discharge its contents and has more than one inch of fluid in the bottom of the can, it is considered a hazardous waste under U.S. EPA guidelines. See section 13 for more details.

Section 2 • Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Emergency Overview:
DANGER: Extremely Flammable. Eye Irritant. Vapor Harmful. Contents Under Pressure. Harmful or Fatal if Swallowed.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes Irritating to eyes

Skin Repeated exposure may cause skin dryness or cracking. The solvent portion of this product can also be absorbed through the skin and produce CNS depression effects.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache. In extreme cases (overexposure in a confined space for example), the vapors of the solvent portion can cause disorientation, difficulty with breathing, unconsciousness, and other effects depending upon the level of overexposure and duration.

Ingestion: This product has a low order of acute oral toxicity, but ingestion of large quantities will cause central nervous system depression and gastrointestinal irritation. Symptoms include a burning sensation to the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and other central nervous system effects. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No **IARC:** No **OSHA:** No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure: Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 • Composition / Information on Ingredients

Component	CASRN	Percent by Weight
Acetone	67-64-1	20 - 30%
Propane/Isobutane	68476-85-7	20 - 30%
Mineral Spirits	8052-41-3	20 - 30%
Distillates Petroleum Hydrotreated Heavy Paraffinic	64742-54-7	1 - 5%

**The remaining ingredients of this preparation are not classified as hazardous per 29 CFR 1920.1200 Subpart Z*

Section 4 • First Aid Measures

Eyes: Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.

Skin: Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.

Inhalation: Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 • Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: Use DRY chemical powder, CO_2, water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosions.

Sensitivity to Impact: None. **Sensitivity to Static Discharge:** Yes (highly flammable propellant).

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Special Remarks on Explosion Hazards: Aerosols may explode upon heating, spread fire and overcome sprinkler systems.

Section 6 • Accidental Release Measures

Containment Procedures Contain and recover spilled liquid when possible.

Clean-Up Procedures

Small Spill and Leak: Eliminate all ignition sources. Absorb with an inert material and dispose of properly.

Large Spill and Leak: For large spills, eliminate all ignition sources, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.

Evacuation Procedures Ventilate area of leak or spill. Keep unnecessary and unprotected people away.

Special Procedures Remove all sources of ignition. Ventilate area. Wear appropriate protective equipment during cleanup.

Section 7 • Handling and Storage

Handling: DO NOT spray into or around ignition sources. Do not allow material to come into contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Do not breathe vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: Store aerosols as Level 2 Aerosol (NFPA 30B). Store all materials in dry, well-ventilated area. Avoid breathing vapors.

Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEL	NIOSH REL
Acetone	67-64-1	1000 ppm	Not Established	500 ppm	750 ppm	250 ppm
Propane/Isobutane	68476-85-7	1,000 ppm	Not Established	1,000 ppm	Not Established	1000 ppm
Mineral Spirits	8052-41-3	500 ppm	Not Established	100 ppm	Not Established	350 mg/m^3
Distillates Petroleum Hydrotreated Heavy* Paraffinic	64742-54-7	5 mg/m^3 (Oil Mist)	Not Established	5 mg/m^3 (Oil Mist)	Not Established	Not Established
Dipropylene Glycol Methyl Ether	34590-94-8	100 ppm	Not Established	100 ppm	150 ppm	100 ppm

* Supplier Recommendation

Engineering Controls: Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines listed above.
Personal Protection:

Eye protection	Safety glasses with side shields conforming to appropriate regulations. Eye wash fountain and emergency shower facilities are recommended.
Hand protection	Normally no hand protection is required; however, if product will be sprayed for an extended period, "overspray" onto skin may occur. If so, use chemical resistant gloves (i.e., nitrile) conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves.
Respiratory protection	Typical use of this product under normal conditions does not require the use of respiratory protection. If airborne concentrations are above the applicable exposure limits (listed above), use NIOSH approved respiratory protection (i.e., organic vapor cartridge).
General Hygiene Considerations	Wash throughly after handling. Have eye-wash facilities immediately available.

Section 9 – Physical and Chemical Properties

Appearance:	Liquid.	**Color:**	Red
Odor/Taste:	Cherry.	**Vapor Pressure:**	4395mmHg (at 20°C)
Solubility Description:	Not soluble in cold water.	**Evaporation Rate:**	0.2(BuAc=1)
Boiling Point:	160°C (320°F)	**Flash Point:**	-20°C (-4°F)
Specific Gravity (Water=1):	0.88-0.89	**Flash Point Method:**	Tag-Closed Cup.
Vapour Density (air=1):	4.8	**Auto Ignition Temperature (°C):**	>230°C (446°F)
V.O.C. Content:	50.7%, 3.7#/gal, 442g/L per CARB	**Partition Coefficient (octanol/water):**	Not Determined
Flammable limits (estimated):	LOWER: 0.6% UPPER: 12.8%	**Viscosity:**	Not Determined
pH:	Not Determined	**Odor threshold**	Not Determined
Melting Point	Not Determined	**Volatiles:**	73%
Decomposition Temperature	Not Determined		

Section 10 • Stability and Reactivity

Chemical Stability: Product is stable under recommended storage conditions.

Conditions to Avoid: Keep away from heat and ignition sources.

Incompatibility: Reactive or incompatible with oxidizing agents.

Hazardous Decomposition: Combustion will generate smoke, possibly thick and choking, resulting in zero visibility and combustion products include carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this preparation.

B: Component Analysis

Ingredients	CASRN	LC-50	LD-50
Acetone	67-64-1	50,100 mg/m3/8H/rat	5340 mg/kg /rabbit/oral >9400 L/kg/guinea pig/dermal
Propane/Isobutane	68476-85-7	Not Established	Not appropriate
Mineral Spirits	8052-41-3	Not Established	5g/kg/rat/oral* 3g/kg/rabbit/dermal*
Distillates Petroleum Hydrotreated Heavy* Paraffinic	64742-54-7	Not Established	>15 gm/kg/ rat / oral >5 gm/kg/rabbit/dermal
Dipropylene Glycol Methyl Ether	34590-94-8	Not Established	5400 uL/kg/rat/oral 10 mL/kg/rabbit/dermal

*Supplier test data

Section 12 • Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil.

Persistence and degradability: Not readily biodegradable.

Bioaccumulative potential: No bioaccumulation potential

Other adverse effects: See below **

Component Information

Acute Aquatic Toxicity

Component	CASRN	Test	Species	Results
Acetone	67-64-1	No Data Available		
Propane/Isobutane	68476-85-7			
Mineral Spirits	8052-41-3			
Distillates Petroleum Hydrotreated Heavy Paraffinic	64742-54-7	96-hour LC_{50}	Oncorhynchus mykiss	>1000 mg/L
Dipropylene Glycol Methyl Ether	34590-94-8	No Data Available		

**If spilled, the 64742-54-7 constituent may kill grasses and small plants by interfering with transpiration. Spilled material may coat gill structures of fish resulting in suffocation if spilled in shallow, running water. This product may be toxic to amphibians by preventing dermal respiration. This product may also cause gastrointestinal distress to birds and mammals through ingestion.

Section 13 • Disposal Considerations

Waste Status: This product has the RCRA characteristic of ignitability and if discarded would have the hazardous waste code D001. In addition, “non-empty” aerosols are a RCRA hazardous waste carrying waste code D003.

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.

Section 14 • Transport Information

D.O.T. Ground	**Shipping Name:**	Consumer Commodity	**UN Number:**	NA
	Hazard Class:	ORM-D	**Technical Name:**	NA
	Subclass:	NA	**Hazard Label:**	ORM-D Already on box
Road/Rail - ADR/RID	**UN no:**	1950	**ADR Class:**	2
	Packing group:	NA	**Classification code:**	5F
	Name and Description:	AEROSOLS, Flammable	**Hazard ID no:**	NA
	Labeling:	2.1		
IMDG-IMO	**UN no:**	1950	**Class:**	2.1
	Shipping Name:	AEROSOLS	**Subsidiary Risk:**	2.1
	Packing Instructions:	P003, LP02	**Packing group:**	NA
	Marine pollutant:	NO	**EmS:**	F-D, S-U
IATA-ICAO	**UN no:**	1950	**Class:**	2.1
	Shipping Name:	AEROSOLS, Flammable	**Subclass**	NA
	Packing instructions:	203, Y203 (Ltd. Qty.)	**Packing group:**	NA
	Labeling:	Flammable Gas		

Section 15 • Regulatory information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001, D003

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): Acetone 67-64-1 5000lbs

Toxic Substances Control Act (TSCA):
All components of this product are TSCA inventory listed and/or are exempt.

Superfund Amendments and Reauthorization Act (SARA) Title III
SARA Section 311/312 (40 CFR 370) Hazard Categories:
Sudden Release of Pressure, Fire Hazard, Immediate (Acute) Health Hazard

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): No individual section 313 component is present at or above 1%

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

New Jersey RTK: Acetone 67-64-1● Propane/Isobutane Blend 68476-85-7 ● Aromatic Hydrocarbon Resin 68410-16-5 ● Mineral Spirits 8052-41-3 ● Distillates Petroleum, Hydrotreated Heavy Paraffinic 64742-54-7 ● Petrolatum 8009-03-8

California: This product does **not** contain chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm.

California and OTC States: This product is not regulated by consumer product regulations.

International Regulations

Canadian Environmental Protection Act: All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System (WHMIS):

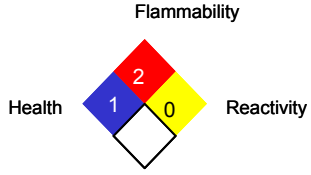
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Classification:
Class A, Class B5, Class D2B

Other Regulations

Montreal Protocol listed ingredients:	None.
Stockholm Convention listed ingredients:	None.
Rotterdam Convention listed ingredients:	None.
RoHS Compliant:	Yes.

Section 16 • Other Information

	HMIS 1996		HMIS III		NFPA
MSDS# 13316 **Responsible Name:** **Clea Johnson** **Regulatory Affairs Coordinator**	Health:	1	Health:	[/]1	
	Flammability:	2	Flammability:	3	
	Reactivity	0	Physical Hazard:	2	

Notice to Reader:
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Clea Johnson, Regulatory Affairs Coordinator
LPS Laboratories, A division of Illinois Tool Works