



MATERIAL SAFETY DATA SHEET

LPS® HardCoat (Bulk)

Revision Date: April 15, 2011

Supersedes: December 8, 2010

Section 1 • Product and Company Identification

Product Name: LPS® HardCoat (Bulk)

Part Number(s): 03328, 03305, 03355, C03328, C03305, C03355

Chemical Name: Petroleum Hydrocarbon Mixture

Product Use: A corrosion inhibitor designed to displace water and penetrate to form a barrier against moisture, air, acids, alkali fumes and other corrosive elements on metal parts.

Manufacturer Information: LPS Laboratories, 4647 Hugh Howell Road, Tucker, GA, USA 30084
TEL: USA & Canada: 1 800 241-8334
Outside USA and Canada: +1 770 243-8800
FAX: USA & Canada: 1 800 543-1563
Outside USA and Canada: +1 770 243-8899

Emergency Telephone Number: Chemtrec: USA & Canada: 1 800 424-9300
Outside USA and Canada: +1 703 527-3887

Website: <http://www.lpslabs.com>

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:

Aerosol: Not applicable

Bulk: DANGER: Combustible. 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 Central Nervous System (CNS) depression effects.

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

Ingestion: 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.



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Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No IARC: No OSHA: No ACGIH: No

Mutagenic Effects: None

Teratogenic Effects: None

Target Organs: 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	Weight Percent
Light Mineral Spirits	8052-41-3 / 64742-88-7	40 - 50%
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	5 - 10%
(2-Methoxymethylethoxy) Propanol	34590-94-8	1 - 5%

Any remaining ingredients are not classified as "hazardous" per 29 CFR 1910.1200 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.



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Section 5 • Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

General Fire Hazards: High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.

Firefighting media: SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use CO₂, 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

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:
High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.

Section 6 • Accidental Release Measures

Containment Procedures:

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

Large Spill and Leak: Eliminate 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.

Clean-Up Procedures: Recover free product and place in a suitable container for 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 personal protective equipment during cleanup.

Section 7 • Handling and Storage

Handling: DO NOT allow material to come in contact with eyes, skin or clothing. Wear appropriate protective equipment during handling. Keep container closed. Avoid breathing 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 100°F (37°C).

Precautions to be taken in handling and storage:
Store all materials in a dry, well-ventilated area. Avoid breathing vapors.



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Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA	ACGIH	NIOSH	Supplier
Light Mineral Spirits	8052-41-3 / 64742-88-7	500 ppm PEL	100 ppm TLV	350 mg/m ³ - 10 hr TWA 1800 mg/m ³ - 15 minute Ceiling	
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	5 mg/m ³ (oil mist)	5 mg/m ³ (oil mist) TLV 10 mg/m ³ (oil mist) STEL	5 mg/m ³ (oil mist) TWA 10 mg/m ³ (oil mist) STEL	
(2-Methoxymethylethoxy) Propanol	34590-94-8	100 ppm PEL	100 ppm TLV 150 ppm STEL	100 ppm TWA 150 ppm STEL	

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

Personal protective equipment

Eye protection: Safety glasses with side shields conforming to appropriate regulations. Where there is a reasonable probability of liquid contact, wear splash-proof goggles. 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, wear chemical resistant gloves 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 thoroughly after handling. Have eye-wash facilities immediately available.



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Section 9 • Physical and Chemical Properties

Appearance:	Viscous liquid	Color:	Medium to dark brown
Odor:	Cherry	Evaporation Rate:	0.2 (BuAc = 1)
Solubility Description:	Not soluble in cold water	Flash Point:	> 42°C (107°F)
Boiling Point:	160°C (320°F)	Flash Point Method:	Tag-Closed Cup
Specific Gravity (H₂O=1):	0.87 - 0.89 @ 20°C	Decomposition Temperature:	Not established
Vapor Density (air = 1):	4.8	Auto ignition temperature:	> 230°C (446°F)
Vapor Pressure:	2.60 mm Hg @ 20°C	Flammable limits (estimated):	LOWER: N.E. UPPER: N.E.
Rule 1171 PPc:	Not applicable	Partition Coefficient (octanol/water):	Not established
V.O.C. Content:	Aerosol: Not applicable Bulk: 51.4%, 451 g/L, 3.8 lb/gal per CARB/OTC/EPA	Odor Threshold:	Not established
Melting Point:	Not established	Viscosity:	30.6 - 37.4 cSt @ 20°C
pH:	Not applicable	Volatiles:	50 - 60%
Heat of combustion:	Aerosol: Not applicable Bulk: Not established		

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:	These products are carbon oxides (CO, CO ₂).
Hazardous Polymerization:	Will not occur.



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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

Component	CASRN	LC-50	LD-50
Light Mineral Spirits	8052-41-3 / 64742-88-7	> 5500 mg/m3 / rat / 4 hr	> 5000 mg/kg / oral / rat > 3000 mg/kg / dermal / rat
Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	Not established	> 15 g/kg / oral / rat* > 5 g/kg / dermal / rabbit*
(2-Methoxymethylethoxy) Propanol	34590-94-8	16000 ppm / rat / 4 hr*	5800 mg/kg / oral / rat* 20000 mg/kg / dermal / rabbit

* Supplier Data

20,000 ppm of ingredient 64742-88-7 in air can cause death to humans in 5 to 10 minutes.

Section 12 • Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil. **Persistence / Degradability:** Not readily biodegradable

Bioaccumulative potential: No bioaccumulation potential **Other adverse effects:** See below

Ecological studies have not been conducted for this product. The following information is available for component(s) of this product.

Ecotoxicity

Effects on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Light Mineral Spirits	8052-41-3 / 64742-88-7	96-hr LC50	Fathead Minnow	800 mg/L
	Distillates (Petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	96-hr LC50	Oncorhynchus Mykiss	> 1000 mg/L
Acute Toxicity on Daphnia	Light Mineral Spirits	8052-41-3 / 64742-88-7	48-hr LC50	Daphnia Magna	> 100 mg/L
Bacterial Inhibition	No data available				
Growth inhibition of algae	Light Mineral Spirits	8052-41-3 / 64742-88-7	96-hr EC50	Algae	450 g/L
Bioaccumulation in fish	No data available				

* Supplier Data

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.



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Section 13 • Disposal Considerations

Waste Status: If disposed of in its received form, this item carries the waste code D001 (US).

Disposal: Waste must be disposed of in accordance with any and all applicable environmental control rules and/or 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:	Not regulated	UN No.:	NA
	Hazard Class:	NA	Technical Name:	NA
	Subclass:	NA	Hazard Label:	NA
	Packing Group:	NA		
Road/Rail - ADR/RID	UN No.:	1139	ADR Class:	3
	Packing Group:	III	Classification Code:	F1
	Name and description:	Coating Solution	Hazard ID No.:	30
	Labeling:	3	Technical Name:	NA
IMDG-IMO	UN No.:	1139	Class:	3
	Shipping Name:	Coating solution	Subsidiary Risk:	NA
	Labeling:	3	Packing Group:	III
	Packing Instructions:	P001, LP01	EmS:	F-E, <u>S-E</u>
IATA - ICAO:	UN No.:	1139	Class:	3
	Shipping Name:	Coating solution	Subclass:	NA
	Packing Instructions:	309, Y309 (Ltd. Qty.)	Packing Group:	III
	Labeling:	Flammable Liquid	Technical Name:	NA

The preceding information is subject to change and must be verified prior to shipment. It is the responsibility of anyone offering hazardous materials for shipment to ensure compliance with all applicable regulations.

Section 15 • Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA):

None

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:

Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) 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



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State Regulations

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

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

New Jersey Right to Know:

Aerosol: Not applicable

Bulk: Light Mineral Spirits 8052-41-3 / 64742-88-7 • Aromatic Hydrocarbon Resin 68410-16-5 • Distillates (Petroleum), Hydrotreated Heavy Paraffinic 64742-54-7 • Petrolatum 8009-03-8 • Hydrotreated Microcrystalline Wax 64742-60-5 • (2-Methoxymethylethoxy) Propanol 34590-94-8

International Regulations

Canadian Environmental Protection Act (CEPA):

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:

Bulk: Class B3, 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

MSDS#: 13328 MSDS Preparation Responsible Name: Clea George Regulatory Affairs Coordinator Telephone: +1 770 243-8800	HMIS 1996	HMIS III	NFPA Flammability Special
	Health: 1	Health: [] 1	
Flammability: 2	Flammability Aerosol: NA Flammability Bulk: 2	Health	Reactivity
Reactivity: 0	Physical Hazard Aerosol: NA Physical Hazard Bulk: 0		

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.

Ed Williams, Manager of Research and Development
LPS Laboratories, a division of Illinois Tool Works