



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name LPS® Cold Galvanize
Version # 01
Issue date 03-07-2013
Supersedes date 03-05-2013
CAS # Mixture
Part Number 00516, C00516
Product use A zinc rich industrial maintenance primer designed for rust and corrosion protection.
Manufacturer information LPS Laboratories, a division of Illinois Tool Works
4647 Hugh Howell Rd
Tucker, Georgia 30084 United States
www.lpslabs.com
1-800-241-8334/ 770-243-8800
Chemtrec 1-800-424-9300

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. Harmful if inhaled. Harmful in contact with skin. Causes serious eye irritation.

MAY CAUSE CANCER.

May cause drowsiness or dizziness. Prolonged exposure may cause chronic effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Do not get this material in contact with eyes. Contact may irritate or burn eyes.

Skin Harmful in contact with skin. Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.

Inhalation Do not breathe dust/fume/gas/mist/vapors/spray. Harmful if inhaled.

Ingestion Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Do not ingest.

Target organs Central nervous system. Eyes. Skin. Respiratory system.

Chronic effects Conjunctiva. Edema. Kidney injury may occur. 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 Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Decrease in motor functions. Behavioral changes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to eyes, respiratory system and skin. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Prolonged exposure may cause chronic effects.

Potential environmental effects Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Petroleum Gases, Liquefied, Sweetened	68476-86-8	15 - 40
ACETONE	67-64-1	10 - 30

Hazardous components	CAS #	Percent
Xylene	1330-20-7	3 - 7
ETHYLBENZENE	100-41-4	1 - 5
STODDARD SOLVENT	8052-41-3	1 - 5
Non-hazardous components	CAS #	Percent
ZINC OXIDE	1314-13-2	1 - 5
Other components below reportable levels		40 - 70

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if symptoms occur.
Inhalation	If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. If not breathing, give artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.
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. Symptoms may be delayed. Keep victim under observation.

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. Pressurized container may explode when exposed to heat or flame.

Extinguishing media

Suitable extinguishing media	Powder. Alcohol resistant foam. Dry sand. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical
By heating and fire, harmful vapors/gases may be formed. In contact with water releases flammable gases which may ignite spontaneously. Contents under pressure. Container may explode in heat of fire.

Protective equipment for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Use standard firefighting procedures and consider the hazards of other involved materials. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to cool unopened containers. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Water runoff can cause environmental damage.

Specific methods

In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move container from fire area if it can be done without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

Explosion data

Sensitivity to static discharge	Yes
Sensitivity to mechanical impact	None known.

6. Accidental Release Measures

Personal precautions

Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ventilate closed spaces before entering them. Avoid inhalation of vapors or mists.

Environmental precautions

Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment. Refer to special instructions/safety data sheets. Do not contaminate water.

Methods for containment

Refer to attached safety data sheets and/or instructions for use. 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. Dike the spilled material, where this is possible. Collect spillage. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Methods for cleaning up

Ventilate the contaminated area. Extinguish all flames in the vicinity. Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Should not be released into the environment. The product is immiscible with water and will sediment in water systems.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent product from entering drains. 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.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. May be ignited by open flame. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid exposure - obtain special instructions before use. Do not breathe the mist or vapor. Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains. Use appropriate container to avoid environmental contamination.

Storage

Contents under pressure. Avoid exposure - obtain special instructions before use. Store locked up. Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49°C. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use appropriate container to avoid environmental contamination.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
	TWA	100 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm	
	TWA	100 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

US. ACGIH. BEIs. Biological Exposure Indices

Components	Type	Value
Acetone (CAS 67-64-1)	BEI	50 mg/l
Ethylbenzene (CAS 100-41-4)	BEI	0.7 g/g
Xylene (CAS 1330-20-7)	BEI	1.5 g/g

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

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	1800 mg/m3	
		750 ppm	
	TWA	1200 mg/m3	
Ethylbenzene (CAS 100-41-4)	STEL	500 ppm	
		543 mg/m3	
	TWA	125 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	434 mg/m3	
		100 ppm	
	TWA	572 mg/m3	
Xylene (CAS 1330-20-7)	STEL	100 ppm	
		651 mg/m3	
	TWA	150 ppm	
Zinc Oxide (CAS 1314-13-2)	STEL	434 mg/m3	
		100 ppm	
	TWA	100 ppm	
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable.
	TWA	2 mg/m3	Respirable.

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	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
	TWA	20 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	STEL	580 mg/m3	
	TWA	290 mg/m3	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
	TWA	0.5 ppm	Vapor and aerosol, inhalable.
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable.

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

Components	Type	Value	Form
	TWA	2 mg/m3	Respirable.

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

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	125 ppm	
	TWA	100 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	2380 mg/m3	
		1000 ppm	
	TWA	1190 mg/m3	
		500 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	543 mg/m3	
		125 ppm	
	TWA	434 mg/m3	
		100 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	525 mg/m3	
		100 ppm	
Xylene (CAS 1330-20-7)	STEL	651 mg/m3	
		150 ppm	
	TWA	434 mg/m3	
		100 ppm	
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Fume.
	TWA	5 mg/m3	Fume.
		10 mg/m3	Total dust.

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

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m3	
		100 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	PEL	2900 mg/m3	
		500 ppm	
Xylene (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	
Zinc Oxide (CAS 1314-13-2)	PEL	5 mg/m3	Respirable fraction.
		5 mg/m3	Fume.
		15 mg/m3	Total dust.

Engineering controls

Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye / face protection	Do not get in eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.
Skin protection	Avoid contact with the skin. Chemical resistant gloves. Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.

9. Physical & Chemical Properties

Appearance	Liquid.
Physical state	Gas.
Form	Aerosol.
Color	Light grey. Opaque.
Odor	Aromatic. Hydrocarbon-like.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	> 1 kPa @ 25°C
Vapor density	> 1 (air = 1)
Solubility (water)	Insoluble in water
Specific gravity	1.764 @ 25°C
Relative density	Not available.
Flash point	< 77.00 °F (< 25.00 °C)
Flammability limits in air, upper, % by volume	9.5 %
Flammability limits in air, lower, % by volume	1.8 %
VOC	0.76 MIR per U.S. State and Federal Aerosol Coating Regulations
Viscosity	3000 - 4500 cSt
Percent volatile	25.7 %
Other data	
Density	14.71 g/cm ³
Heat of combustion	> 30 kJ/g

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with water liberates flammable gas.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.
Acute effects	Harmful if inhaled. Harmful in contact with skin.
Local effects	Harmful by inhalation and in contact with skin. Irritating to eyes and skin.
Chronic effects	Prolonged exposure may cause chronic effects.
Subchronic effects	None known.
Carcinogenicity	Suspected of causing cancer.

ACGIH Carcinogens

ACETONE (CAS 67-64-1)	A4 Not classifiable as a human carcinogen.
ETHYLBENZENE (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Xylene (CAS 1330-20-7)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

ETHYLBENZENE (CAS 100-41-4)	2B Possibly carcinogenic to humans.
STODDARD SOLVENT (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Mutagenicity	Due to lack of data the classification is not possible.
Reproductive effects	Based on available data, the classification criteria are not met.
Symptoms and target organs	Discomfort in the chest. Shortness of breath. Narcosis. Coughing. Edema. Liver enlargement. Jaundice. Proteinuria. Behavioral changes. Decrease in motor functions. Irritant effects. Irritation of eyes and mucous membranes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
Environmental effects	Very toxic to aquatic life with long lasting effects.
Aquatic toxicity	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Persistence and degradability	No data is available on the degradability of this product.
Partition coefficient	
ACETONE	-0.24
ETHYLBENZENE	3.15
STODDARD SOLVENT	3.16 - 7.15
Xylene	3.12 - 3.2
Mobility in environmental media	The product is immiscible with water and will sediment in water systems.

13. Disposal Considerations

Disposal instructions	This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not incinerate sealed containers. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. After recovery of solvent dispose of residue as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.
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

TDG

UN number	UN1950
UN proper shipping name	Aerosols, flammable, MARINE POLLUTANT
Hazard class	2.1
Marine pollutant	Yes
Special provisions	N82
Labels required	2.1
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Environmental hazards	Yes
Labels required	2.1

IMDG

UN number	UN1950
UN proper shipping name	Aerosols, flammable, MARINE POLLUTANT
Transport hazard class(es)	2.1
Environmental hazards	
Marine pollutant	Yes
Labels required	2.1

IATA; IMDG; TDG**Marine pollutant****General**

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

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
 D2A - Other Toxic Effects-VERY TOXIC
 D2B - Other Toxic Effects-TOXIC

WHMIS labeling**16. Other Information****Further information**

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2*
 Flammability: 4
 Physical hazard: 2

NFPA ratings

Health: 2
 Flammability: 4
 Instability: 1

Disclaimer

This safety data sheet was prepared in accordance with the Safety Data Sheet for Chemical Products (JIS Z 7250:2010). Additional information is given in the Material Safety Data Sheet. The information in the sheet was written based on the best knowledge and experience currently available.

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.