



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material name LPS® BrightCoat Cold Galvanize
Recommended use A shiny zinc rich industrial maintenance primer designed for rust and corrosion protection.
Version # 01
CAS # Mixture
Part Number 05916
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

Classification F+;R12, Carc. Cat. 1;R45, Xn;R20/21, Xi;R36/38, R67, N;R50/53
Risk phrase(s) R45 May cause cancer.
R12 Extremely flammable.
R20/21 Also harmful by inhalation and in contact with skin.
R36/38 Irritating to eyes and 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) 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.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29 Do not empty into drains.
S36/37 Wear suitable protective clothing and gloves.
S53 Avoid exposure - obtain special instructions before use.
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
Metallic Zinc	7440-66-6	30 - 60
Petroleum Gases, Liquefied, Sweetened	68476-86-8	10 - < 30
1,2,4-Trimethylbenzene	95-63-6	< 10
2-ethylhexanoic acid	149-57-5	< 10
Acetone	67-64-1	< 10
Aluminum flake	7429-90-5	< 10
Aromatic Solvent	64742-95-6	< 10
Ethylbenzene	100-41-4	< 10
Hydrosulfurized Heavy Petroleum Naptha	64742-82-1	< 10
Methyl Ethyl Ketone	96-29-7	< 10
Mineral Spirits Regular Stoddard Solvent	8052-41-3	< 10
Naphtha, Petroleum, Hydrotreated Heavy	64742-48-9	< 10

Components	CAS #	Percent
Propylene Carbonate	108-32-7	< 10
Propylene Oxide	75-56-9	< 10
Toluene	108-88-3	< 10
Xylene	1330-20-7	< 10
Zinc Oxide	1314-13-2	< 10
Zirconium 2-ethylhexanoate	22464-99-9	< 10
Zirconium Acetate	5153-24-2	< 10
Other components below reportable levels		< 10

4. FIRST AID MEASURES

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. 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. 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 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 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. Rinse mouth thoroughly.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Powder. Dry sand.
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	Heat may cause the containers to explode. Vapors may travel considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.
Specific hazards	By heating and fire, harmful vapors/gases may be formed. Contents under pressure. Pressurized container may explode when exposed to heat or flame. In contact with water releases flammable gases which may ignite spontaneously.
Special protective equipment for fire-fighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
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. Use water spray to cool unopened containers. Move container from fire area if it can be done without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
HAZCHEM code	None

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). Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them.
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.
Containment procedures	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). Keep out of low areas. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Extinguish all flames in the vicinity. Stop the flow of material, if this is without risk. Ventilate the contaminated area. Isolate area until gas has dispersed. Wear appropriate protective equipment and clothing during clean-up. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. This material and its container must be disposed of as hazardous waste.

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. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid exposure - obtain special instructions before use. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Do not empty into drains. Use appropriate container to avoid environmental contamination.

Storage

Level 2 Aerosol.

Avoid exposure - obtain special instructions before use. Store locked up. Contents under pressure. 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 puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid exposure to long periods of sunlight. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep container tightly closed. 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. Use care in handling/storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
2-ethylhexanoic acid (CAS 149-57-5)	TWA	5 mg/m3	Inhalable fraction and vapor.
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Aluminum flake (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Hydrosulfurized Heavy Petroleum Naptha (CAS 64742-82-1)	TWA	100 ppm	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm	
Propylene Oxide (CAS 75-56-9)	TWA	2 ppm	
Toluene (CAS 108-88-3)	TWA	20 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.
Zirconium 2-ethylhexanoate (CAS 22464-99-9)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Zirconium Acetate (CAS 5153-24-2)	STEL	10 mg/m3	
	TWA	5 mg/m3	

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

Components	Type	Value	Form
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m3	
		25 ppm	

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

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	2375 mg/m3 1000 ppm	
	TWA	1185 mg/m3 500 ppm	
Aluminum flake (CAS 7429-90-5)	TWA	5 mg/m3	Pyrophoric powder.
		5 mg/m3	Welding fume.
Ethylbenzene (CAS 100-41-4)	STEL	10 mg/m3 543 mg/m3	Dust.
	TWA	125 ppm 434 mg/m3	
Hydrosulfurized Heavy Petroleum Naptha (CAS 64742-82-1)	TWA	100 ppm 790 mg/m3	
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	TWA	790 mg/m3	
Propylene Oxide (CAS 75-56-9)	TWA	48 mg/m3	
Toluene (CAS 108-88-3)	STEL	20 ppm 574 mg/m3	
	TWA	150 ppm 191 mg/m3	
Xylene (CAS 1330-20-7)	STEL	50 ppm 655 mg/m3	
	TWA	150 ppm 350 mg/m3	
Zinc Oxide (CAS 1314-13-2)	STEL	80 ppm 10 mg/m3	Fume.
	TWA	5 mg/m3 10 mg/m3	Fume. Inspirable dust.
Zirconium 2-ethylhexanoate (CAS 22464-99-9)	STEL	10 mg/m3	
Zirconium Acetate (CAS 5153-24-2)	TWA	5 mg/m3	
	STEL	10 mg/m3	
	TWA	5 mg/m3	

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. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection Avoid breathing dust/fume/gas/mist/vapors/spray. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Hand protection Chemical resistant gloves are recommended.

Eye protection Do not get in eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin and body protection Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Wear suitable protective clothing. Chemical resistant gloves.

General Use personal protective equipment as required.

Environmental exposure controls Environmental manager must be informed of all major releases. 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. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.
Physical state	Gas.
Form	Aerosol.
Color	Opaque. Grey.
Odor	Hydrocarbon-like.
Odor threshold	Not available.
pH	Not available.
Vapor density	> 1 (air = 1)
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Partially soluble
Specific gravity	1.175
Flash point	< 68.00 °F (< 20.00 °C) Tag Closed Cup
Flammability limits in air, upper, % by volume	12.8 % (concentrate)
Flammability limits in air, lower, % by volume	2.6 % (concentrate)
Auto-ignition temperature	Not available.
VOC	0.61 MIR per U.S. State and Federal Aerosol Coating Regulations
Viscosity	1000 cSt (estimated)
Other data	
Density	9.80 lb/gal

10. STABILITY AND REACTIVITY

Chemical stability	Material is stable under normal conditions. Instability caused by moisture, heat, ignition sources.
Conditions to avoid	Eliminate all sources of ignition. Avoid temperatures exceeding the flash point. This product may react with oxidizing agents. Contact with water liberates flammable gas.
Materials to avoid	Water, moisture. 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

Acute toxicity	Harmful if inhaled. Harmful in contact with skin.
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.
Chronic toxicity	Prolonged exposure may cause chronic effects.
Subchronic toxicity	None known.
Sensitization	Based on available data, the classification criteria are not met.
Carcinogenicity	Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Hydrosulfurized Heavy Petroleum Naptha (CAS 64742-82-1)	3 Not classifiable as to carcinogenicity to humans.
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.
Propylene Oxide (CAS 75-56-9)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Mutagenicity	Based on available data, the classification criteria are not met.
Teratogenicity	No data available for this product.
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 and skin. Harmful by inhalation, in contact with skin and if swallowed.

Symptoms and target organs Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Discomfort in the chest. Shortness of breath. Narcosis. Coughing. Behavioral changes. Decrease in motor functions. Irritating to eyes, respiratory system and skin. Defatting of the skin. Rash. 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.

Persistence and degradability Not inherently biodegradable.

Mobility The product is immiscible with water and will sediment in water systems.

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

2-ethylhexanoic acid	2.64
Acetone	-0.24
Ethylbenzene	3.15
Hydrosulfurized Heavy Petroleum Naptha	3.16 - 7.15
Mineral Spirits Regular Stoddard Solvent	3.16 - 7.15
Propylene Carbonate	-0.41
Propylene Oxide	0.03
Toluene	2.73
Xylene	3.12 - 3.2

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.

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. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. After recovery of solvent dispose of residue as hazardous waste. Dispose in accordance with all applicable regulations.

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. Do not re-use empty containers.

14. TRANSPORT INFORMATION

ADG

UN number UN1950
Proper shipping name AEROSOLS
Hazard class 2
Hazard ID 2YE

IATA

UN number UN1950
Proper shipping name Aerosols, flammable
Hazard class 2.1
Special precautions IMDG Regulated Marine Pollutant.
ERG code 10L

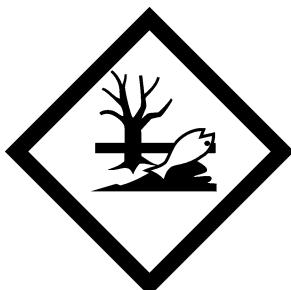
IMDG

UN number UN1950
Proper shipping name AEROSOLS, MARINE POLLUTANT
Hazard class 2.1
EmS F-D, S-U
Environmental hazards
Marine pollutant Yes
Special precautions IMDG Regulated Marine Pollutant.

ADG; IATA; IMDG



Marine pollutant



HAZCHEM code None
General IMDG Regulated 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.)

Australia HVIC: Listed substance

1,2,4-Trimethylbenzene (CAS 95-63-6)	Listed.
Acetone (CAS 67-64-1)	Listed.
Aluminum flake (CAS 7429-90-5)	Listed.
Aromatic Solvent (CAS 64742-95-6)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Metallic Zinc (CAS 7440-66-6)	Listed.
Naphtha, Petroleum, Hydrotreated Heavy (CAS 64742-48-9)	Listed.
Propylene Oxide (CAS 75-56-9)	Listed.
Toluene (CAS 108-88-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.
Zinc Oxide (CAS 1314-13-2)	Listed.

Australia Medicines & Poisons Schedule 4: Use/Concentration (%)/Exceptions

Metallic Zinc (CAS 7440-66-6)	for human internal use Exception may apply, see the regulation for relevance.
Zinc Oxide (CAS 1314-13-2)	for human internal use Exception may apply, see the regulation for relevance.

Australia Medicines & Poisons Schedule 5: Use/Concentration/Exceptions

1,2,4-Trimethylbenzene (CAS 95-63-6)	Exception may apply, see the regulation for relevance.
Acetone (CAS 67-64-1)	Exception was applied to data.
Hydrosulfurized Heavy Petroleum Naptha (CAS 64742-82-1)	Exception may apply, see the regulation for relevance.
Mineral Spirits Regular Stoddard Solvent (CAS 8052-41-3)	Exception may apply, see the regulation for relevance.
Toluene (CAS 108-88-3)	Exception may apply, see the regulation for relevance.
Xylene (CAS 1330-20-7)	Exception may apply, see the regulation for relevance.

Australia Medicines & Poisons Schedule 6: Use/Concentration/Exceptions

Toluene (CAS 108-88-3)	Exception may apply, see the regulation for relevance.
Xylene (CAS 1330-20-7)	Exception may apply, see the regulation for relevance.

Australia Medicines & Poisons Schedule 7: Use/Concentration/Exceptions

Propylene Oxide (CAS 75-56-9)	applies to all preparations in any concentration
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16. OTHER INFORMATION

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.
Issue date 03-11-2013