



MATERIAL SAFETY DATA SHEET

Zinc-X

Corrosion Inhibitor

Revision 3

Revision Date: 9/30/09

Supersedes: 3/2/09

Section 1 • Product and Company Identification

Product Name:	Zinc-X Corrosion Inhibitor
Part Number:	05616, C05616
Chemical Name:	Blended Compound
Product Use:	A zinc rich industrial maintenance primer designed for rust and corrosion protection.
Manufacturer Information:	LPS Laboratories, 4647 Hugh Howell Rd., Tucker, GA, USA 30084
TEL:	1 770-243-8800
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 will not 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, do not hesitate to call us at 800/241-8334.

Worker Toxicity

Zinc-X Corrosion Inhibitor is a zinc rich industrial maintenance primer for rust and corrosion protection. It is gray and opaque in color, and has a solvent odor. It is designed to prevent and repair rust and corrosion on the exterior of metal structures, metal parts, and metal structural components. It contains acetone and zinc metal that can be irritating to skin. We suggest you wear gloves and avoid extended exposure to unprotected skin. Do not 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). Do not spray Zinc-X Corrosion Inhibitor for extended periods without adequate ventilation. If you are 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

Zinc-X Corrosion Inhibitor is extremely flammable exhibiting a flame extension. The dispensed liquid has a flash point less than 20°C and an auto ignition temperature over 465°C. Avoid sparks or open flame. See Handling and storage precautions.

Disposal

Zinc-X Corrosion Inhibitor must be disposed of as hazardous waste. Dispose of in accordance with local, state and federal regulations. See section 13 for more details.



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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. Contents under pressure. Harmful or Fatal if Swallowed. Highly toxic to aquatic organisms.

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), severe depression of the central nervous system can take place.

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: See Section 11

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, tearing, redness, and swelling of eyes. Repeated or prolonged skin contact can cause skin dryness or cracking. 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. Ingestion of this material may cause nausea, vomiting, and diarrhea. As a result of vomiting, inhalation into the lungs may cause pulmonary injury.



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Section 3 • Composition / Information on Ingredients

Component	CASRN	Percent by Weight (%)
Zinc Metallic	7440-66-6	30 – 40
Acetone	67-64-1	30 – 40
Propane/Isobutane blend	68476-85-7	20 – 30
Aliphatic Hydrocarbon	8052-41-3	1 – 5
Xylene	1330-20-7	.1 – 1
Ethylbenzene	100-41-4	0.1 - 1

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). Get medical attention. 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: Hydrocarbons

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

Aerosols may explode upon heating, spread fire and overcome sprinkler systems. Zinc dust in contact with water evolves hydrogen. An explosive condition may develop if this should happen in a confined space.



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Section 6 • Accidental Release Measures

Containment Procedures

Contain and recover spilled liquid when possible.

Clean-Up 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.

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 as Level 2 Aerosol (NFPA 30B). Store all materials in dry, well-ventilated area. DO NOT breathe vapors.

Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEEL	NIOSH REL
Acetone	67-64-1	1000 ppm	Not Established	500 ppm	750 ppm	250 ppm
Zinc Metal	7440-66-6	5 mg/m ^{3*}	Not Established	5 mg/m ^{3*}	Not Established	Not Established
Propane/Isobutane blend	68476-85-7	1000 ppm	Not Established	1000 ppm	Not Established	1000 ppm
Aliphatic Hydrocarbon	8052-41-3	500 ppm	Not Established	100 ppm	Not Established	300 mg/m ³
Xylene	1330-20-7	100 ppm	Not Established	100 ppm	150 ppm	100 ppm
Ethylbenzene	100-41-4	100 ppm	Not Established	100 ppm	125 ppm	100 ppm

NE- Not Established, * nuisance dust



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Engineering measures 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. 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, neoprene, buna) 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 Avoid breathing mist. Avoid eye and skin contact. Have eye-wash facilities immediately available. Wash thoroughly after handling and before eating or drinking.

Section 9 • Physical and Chemical Properties

Appearance:	Light gray opaque liquid	Color:	Light gray
Odor/Taste:	Paint solvent	Vapor Pressure:	102.8 mmHg
Solubility Description:	Insoluble in cold water	Evaporation Rate(BuAc=1):	9
Boiling Point:	56°C(133°F)	Flash Point (°C): (dispensed liquid)	<20°C(68°F)
Specific Gravity: (Water=1)	1.07	Flash Point Method:	TCC
Vapor Density: (air=1)	>2	Auto Ignition Temperature (°C):	465°C(869°F)
V.O.C. Content: (Calculated)	29.7%, 265 g/L	Partition Coefficient (octanol/water):	Not Established
Flammable limits: (estimated)	LEL:2.3% UEL: 9.5%	Viscosity:	~5cps
pH:	NA	% Volatility:	70.7%

*NA- Not Applicable



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

Section 11 • Toxicological Information

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

Components	CASRN	LC-50	LD-50
Acetone	67-64-1	16000 ppm/rat/4H*	5800 mg/kg/oral/rat* 20000 mg/kg/dermal/rabbit
Zinc Metallic	7440-66-6	Not Established	Not Established
Propane/ Isobutane blend	68476-85-7	Not Established	Not Established
Aliphatic Hydrocarbon	8052-41-3	>6.1 mg/L/rat*	>5 g/kg/oral/ rat*
Xylene	1330-20-7	5000 ppm/ rat/4H	2119 mg/kg/oral/rat
Ethylbenzene	100-41-4	35500 mg/m ³ inhalation/2H/rat	3500 mg/kg oral/rat

*Supplier Data

Carcinogenicity

Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research and Cancer (IARC) has classified Ethylbenzene as a possible carcinogen to humans



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Section 12 • Ecological Information

Mobility:	Semi-volatile. Readily absorbed into soil.	Persistence and degradability:	Only slightly biodegradable.
Bioaccumulative potential:	No bioaccumulation potential	Other adverse effects:	Highly toxic to the aquatic environment.

Component Data: Acute Aquatic Toxicity

Ecotoxicology:

Effect on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Acetone	67-64-1	96 h LC ₅₀	Albumus Albumus	11,000 mg/L
	Zinc Metallic	7440-66-6	96 h LC ₅₀	Cypris Subglobosa	8352 ug/L
	Propane/Isobutane blend	68476-85-7	See below	See below	See below
	Aliphatic Hydrocarbon	8052-41-3	96 h LC ₅₀	Fathead Minnow	2200 mg/L
	Xylene	1330-20-7	96 h LC ₅₀	Carassius Auratus	36810 ug/L
	Ethylbenzene	100-41-4	96 h LC ₅₀	Carassius Auratus	94400 ug/L
Acute Toxicity on Daphnia	No Data Available				
Bacterial inhibition					
Growth inhibition of algae					
Bioaccumulation in fish					

The acute/prolonged toxicity test substances for 68476-85-7 were methane, propane, butane. Significant losses of these test substances by evaporation were likely to occur when these studies were performed. The calculated 96 h LC₅₀ value for propane is 13.0 mg/L and for butane 6.0 mg/L. No analytical ecological monitoring test data is available.

Special Remarks on Ecological Toxicity: This product is highly toxic to the aquatic environment.



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Section 13 • Disposal Considerations

Waste Status: Aerosol products, if depressurized and emptied to less than 2.5 cm of fluid contents are classified as non-hazardous waste under 40 CFR 261.7 (U.S.). If disposed of in its received form, this item carries waste code D001 and D003. (U.S.)

Disposal: Waste must be disposed of in accordance with national, regional, provincial, 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
	Shipping Name:	AEROSOLS	Subsidiary Risk:	2
	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		



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U.S. Federal Regulations

RCRA Hazardous Waste No.: D001, D003 (aerosols only)

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

Acetone 67-64-1 5000lbs.; Zinc 7440-66-6 1000 lbs.; Xylene 1330-20-7 100lbs.; Ethylbenzene 100-41-4 1000 lbs.

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 (aerosols only), 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): Ethylbenzene 100-41-4; Xylene 1330-20-7;

State Regulations

New Jersey RTK:

Acetone 67-64-1 • Zinc 7440-66-6 • Propane/Isobutane Blend 68476-85-7 • Aliphatic Hydrocarbon 8052-41-3 • Zinc Oxide 1314-13-2 • Xylene 1330-20-7 • Ethylbenzene 100-41-4

California: This product contains chemical(s) known to the State of California to cause cancer.

California and OTC States: This product is not regulated by consumer 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: Aerosol
Class A, Class B5, Class D2A, Class D2B



Other Regulations

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



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Section 16 • Other Information

MSDS# 15616 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA	
	Health:	1	Health:	[/]1	Flammability	
	Flammability:	3	Flammability:	3		Reactivity
	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