

Material Safety Data Sheet



Zep Inc.
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Section 1. Chemical Product and Company Identification

Product name Z-WORKS MOLY LUBRICANT
Product use Aerosol Lubricant
Product code R222
Date of issue 08/04/09 **Supersedes**

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-793-7776

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
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1420 Seaboard Industrial Blvd.
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Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

WARNING !



CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
VAPOR HARMFUL.

CONTENTS UNDER PRESSURE.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects

Routes of Entry

Dermal contact. Inhalation.

- Eyes** Causes eye irritation. Liquid in eye may cause irritation with possible damage if not rinsed immediately. Inflammation of the eye is characterized by redness, watering and itching.
- Skin** Causes skin irritation. Product may be absorbed through skin. Skin inflammation is characterized by itching, scaling, or reddening.
- Inhalation** Avoid breathing vapors, spray or mists. Harmful by inhalation. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.
- Ingestion** Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects

Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Contains material which may cause damage to the following organs: heart, kidneys, liver, peripheral nervous system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce hearing impairment or change.

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Trichloroethylene	-	2A	-	-	Possible	+

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

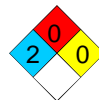
	CAS number	
TRICHLOROETHYLENE; acetylene trichloride; 1-chloro-2,2-dichloroethylene	79-01-6	60 - 70
ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol	67-63-0	5 - 15
BLEND OF ISOBUTANE & PROPANE	74-98-6; 75-28-5	20 - 30

Section 4. First Aid Measures

- Eye Contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.
- Skin Contact** Wash affected area with soap or mild detergent and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.
- Inhalation** Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



Flash Point	Not applicable.
Flammable Limits	Not applicable.
Flammability	Non-flammable. (CSMA)
Fire hazard	CONTENTS UNDER PRESSURE. In a fire or if heated, a pressure increase will occur and the container may burst. Thermal decomposition may release toxic and/or hazardous gases. Do not allow vapor to accumulate in low or confined areas. Bursting aerosol containers may be propelled from a fire at high speed.
Fire-Fighting Procedures	Use an extinguishing agent suitable for the surrounding fire.

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	CONTENTS UNDER PRESSURE. Do not store above the following temperature: 49°C (120.2°F). Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection**Product name**

TRICHLOROETHYLENE; acetylene trichloride; 1-chloro-2,2-dichloroethylene

Exposure limits

ACGIH TLV (United States).

TWA: 10 ppm 8 hour(s).

STEL: 25 ppm 15 minute(s).

OSHA PEL (United States).

TWA: 50 ppm 8 hour(s).

STEL: 200 ppm 15 minute(s).

ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol

ACGIH TLV (United States).

TWA: 200 ppm 8 hour(s).

OSHA PEL (United States).

TWA: 400 ppm 8 hour(s).

ACGIH/OSHA (United States).

STEL: 400 ppm 15 minute(s).

BLEND OF ISOBUTANE & PROPANE

ACGIH TLV (United States).

TWA: 800 ppm 8 hour(s).

OSHA PEL (United States).

TWA: 1000 ppm 8 hour(s).

Personal Protective Equipment (PPE)

Eyes	Safety glasses.
Body	Wear appropriate protective clothing to prevent skin contact. Recommended: Viton gloves.
Respiratory	Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid. [Aerosol.]	Color	Opaque. Black.
pH	Not applicable	Odor	Solvent. [Slight]
Boiling Point	82.2 - 87.8°C (180 - 190 °F)	Vapor Pressure	Not available.
Specific Gravity	1.324	Vapor Density	Not determined.
Solubility	Insoluble in the following materials: cold water and hot water.	Evaporation Rate	>1 (Butyl acetate. = 1)
		VOC (Consumer)	95.2% 10.5 (lb/gal) 1258 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: oxidizing materials, some metals and alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂) May release dangerous gases (chlorine). Phosgene gas. Hydrogen chloride (HCl).

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Trichloroethylene	LD50 Dermal	Rabbit	10000 mg/kg	-
	LD50 Oral	Rat	4920 mg/kg	-
	LD50 Oral	Mouse	2402 mg/kg	-
Isopropyl Alcohol	LD50 Dermal	Rabbit	5030 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LC50 Inhalation Vapor	Rat	16000 ppm	4 hours

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Not available.

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D040
 Classification: - [Hazardous waste.]
 Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification		Consumer commodity	ORM-D		
IMDG Class	Not determined.				

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Product name

Trichloroethylene

Clean Water Act (CWA) 307: Trichloroethylene

Clean Water Act (CWA) 311: Trichloroethylene RQ 100 lbs. (45.4 kg)

Clean Air Act (CAA) 112 regulated toxic substances: Trichloroethylene

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations**California Prop 65**

WARNING: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.:
 Trichloroethylene

Section 16. Other Information

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.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.