

Material Safety Data Sheet



Zep Inc.
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Section 1. Chemical Product and Company Identification

Product name Z-WORKS DRY FILM LUBRICANT
Product use Aerosol Lubricant
Product code R217
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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Section 2. Hazards Identification

Emergency overview

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

DANGER !



EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. Do not smoke. VAPOR HARMFUL. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. 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. Inflammation of the eye is characterized by redness, watering and itching.
- Skin** Causes skin irritation. Skin inflammation is characterized by itching, scaling, or reddening.
- Inhalation** Over-exposure by inhalation may cause respiratory irritation. Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Can cause central nervous system (CNS) depression.
- 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: kidneys, liver, heart, brain, central nervous system (CNS).

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

	CAS number	
HEPTANE; n-heptane	142-82-5	70 - 80
BLEND OF ISOBUTANE & PROPANE	74-98-6; 75-28-5	20 - 30
ISOPROPYL ALCOHOL/TELEFLUOROTELOMER DISPERSION	67-63-0 / 65530-85-	5 - 15
	0 / 79070-11-4	

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** Flush affected skin with plenty of 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. If affected person is conscious, give plenty of water to drink. 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	Closed cup: <-18°C (<0°F) TCC
Flammable Limits	Lower: 1.2% Upper: 6.7%
Flammability	EXTREMELY FLAMMABLE LIQUID AND VAPOR. Aerosol that may flash back. (CSMA)
Fire hazard	CONTENTS UNDER PRESSURE. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. 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 Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Empty containers retain product residue and can be hazardous. Wash thoroughly after handling.
Storage	CONTENTS UNDER PRESSURE. Do not puncture or incinerate container. 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. Eliminate all ignition sources. Keep out of the reach of children.

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

HEPTANE; n-heptane

Exposure limits**ACGIH/OSHA (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).

ISOPROPYL ALCOHOL/TELEFLUOROTELOMER DISPERSION

OSHA PEL Z2 (United States).

TWA: 400 ppm 8 hour(s).

ACGIH TLV (United States, 2001).

TWA: 200 ppm 8 hour(s).

STEL: 400 ppm 15 minute(s).

Personal Protective Equipment (PPE)

Eyes	Splash goggles.	
Body	Wear appropriate protective clothing to prevent skin contact. Recommended: Viton gloves. Nitrile 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	Milky-white
pH	Not applicable	Odor	Mild. Solvent-like.
Boiling Point	Not determined.	Vapor Pressure	Not determined.
Specific Gravity	0.69 (Water = 1)	Vapor Density	Not determined.
Solubility	Insoluble in the following materials: cold water and hot water.	Evaporation Rate	Not determined.
		VOC (Consumer)	95.9% 0.69 (lb/gal) 662 (g/l)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂)

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Heptane	LD50 Oral	Mouse	15000 mg/kg	-
	LC50 Inhalation Gas.	Mouse	18295 ppm	2 hours
Fluorotelomer Dispersion	LD50 Dermal	Rabbit	12900 mg/kg	-
	LD50 Oral	Rat	4700 mg/kg	-
	LC50 Inhalation Vapor	Rat	16000 ppm	4 hours

Section 12. Ecological Information**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: D001
 Classification: - [Hazardous waste.]
 Origin: - [RCRA waste.]

Section 14. Transport Information

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

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:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

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. :
 Toluene

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.