



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)

Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP DRY GRAPHITE
Product Use Aerosol Lubricant
Product Code 0164
Date of issue 10/07/04 **Supersedes** 02/14/00

Emergency For MSDS Information:
Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP

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

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

Printing date: 10/07/04

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
TRICHLOROETHYLENE; acetylene trichloride; 1-chloro-2,2-dichloroethylene	79-01-6	60-70	ACGIH TLV (United States, 1989). TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s). OSHA PEL (United States, 1989). TWA: 50 ppm 8 hour(s). STEL: 200 ppm 15 minute(s).
BLEND OF GRAPHITE, ISOPROPANOL, N-BUTYL ALCOHOL, HEXYLENE GLYCOL, PROPYLENE GLYCOL METHYL ETHER	7782-42-5; 67-63-0; 71-36-3; 107-41-5; 107-98-2	5-15	Not available.
BLEND OF ISOBUTANE & PROPANE	74-98-6; 75-28-5	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects Routes of Entry Absorbed through skin. Inhalation.

Skin Hazardous in case of skin contact (irritant). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eyes Hazardous in case of eye contact (irritant). Liquid in eye may cause irritation with possible damage if not rinsed immediately.

Inhalation Hazardous in case of inhalation (lung irritant). Can cause central nervous system depression. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness, and nausea, and may lead to unconsciousness or death. Prolonged repeated exposure may cause chemical pneumonitis. Medical Conditions Aggravated by Overexposure: Respiratory, Heart (Cardiac).

Ingestion Aspiration hazard if swallowed- can enter lungs and cause damage.

HMIS	
Health	2
Flammability	0
Reactivity	0
Personal Protection	B

Carcinogenic Effects Trichloroethylene: Classified + (Proven) by OSHA; Classified 2A (Probable for human) by IARC; Category 2 (Reasonably Anticipated To Be Human Carcinogen) by NTP.

Chronic Effects The substance may be toxic to kidneys, liver, central nervous system (CNS), heart. Repeated or prolonged exposure to the substance can produce target organs damage. Defatting to the skin. Prolonged skin contact may cause dermatitis with drying and cracking of skin.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact	Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.
Skin Contact	Wash affected area with soap or mild detergent and water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Aspiration hazard if swallowed- can enter lungs and cause damage. Do NOT induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head lower than hips to help prevent aspiration. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point	Not applicable.	Flammable Limits	Not applicable.
Flammability	Non-flammable. (CSMA)		
Fire Hazard	Container explosion may occur under fire conditions or when heated. Thermal decomposition of product can produce toxic vapors of Hydrogen Chloride (HCl), Chlorine, and Phosgene Gas.		
Fire-Fighting Procedures	In case of fire, use water spray (fog), foam, dry chemical, or CO ₂ . Wear special protective clothing and positive pressure, self-contained breathing apparatus.		

**Section 6. Accidental Release Measures**

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Watch for accumulation in low confined areas. Wash thoroughly after handling. Wash contaminated clothing before reusing. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat or sources of ignition.
Storage	Keep away from heat and direct sunlight. Keep container in a cool, well-ventilated area. Do not store above 49°C (120.2°F). Do not puncture or incinerate. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Safety glasses.	
Body	Chemical resistant gloves (Viton)	
Respiratory	Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Wear appropriate respirator when ventilation is inadequate.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Grey. (Dark.)
pH	Not applicable.	Odor	Solvent-like.
Boiling Point	82.2 - 87.8°C (180 - 190 °F)	Vapor Pressure	8 kPa (60 mmHg) (at 20°C)
Specific Gravity	1.32 (Water = 1)	Vapor Density	Not determined.
Solubility	Insoluble in cold water, hot water.	Evaporation Rate	>1 compared to Butyl acetate.
		VOC (Consumer)	87.9%

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive with oxidizing agents, metals, alkalis.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Carbon Dioxide, Carbon Monoxide, Hydrogen Chloride (HCl), Chlorine and Phosgene Gas.

Section 11. Toxicological Information

Toxicity to Animals	Trichloroethylene:	
	ORAL (LD50):	Acute: 4920 mg/kg [Rat]. 2402 mg/kg [Mouse].
	DERMAL (LD50):	Acute: 29800 mg/kg [Rabbit].

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Waste must be disposed of in accordance with federal, Waste Stream Code: D040
Information state and local environmental control regulations. Classification: - (Hazardous waste.)
Origin: - (RCRA waste.)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D

UN number Not regulated.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Trichloroethylene

Clean Water Act (CWA) 311: Trichloroethylene RQ 100 lbs. (45.36 kg)

Clean air act (CAA) 112 regulated toxic substances: 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.