

Safety Data Sheet



Superior Solutions

Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name ZEP SOLV
Product use Solvent Degreaser
Product code 4240
Date of issue 01/21/14 **Supersedes** 12/03/07

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

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

Compliance Services
1259 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

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

DANGER!

CAUSES EYE AND SKIN IRRITATION.
VAPOR HARMFUL.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER.



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. Eye contact. Inhalation.

- Eyes** 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** Direct contact may cause irritation and redness. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. Prolonged contact can cause severe irritation or even burns.
- Inhalation** Material is irritating to mucous membranes and upper respiratory tract. Can cause central nervous system (CNS) depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Severe over-exposure can result in death.
- Ingestion** Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects

Contains material which may cause damage to the following organs: kidneys, the nervous system, liver, mucous membranes, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS). Prolonged skin contact may cause dermatitis with drying and cracking of skin. Pre-existing respiratory and skin disorders may be aggravated by over-exposure to this product.

Carcinogenicity Classification

Tetrachloroethylene: Classified 2A by IARC (Probable human carcinogen.);
Group 2 by NTP (Reasonably anticipated carcinogen.)

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
tetrachloroethylene	-	2A	Possible	A3	-	+

Additional information: See toxicological information (Section 11)

Section 3. Composition/Information on Ingredients

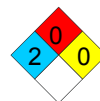
Name	CAS number	%
tetrachloroethylene	127-18-4	90 - 100

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 if irritation occurs.
- Skin Contact** Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if blistering occurs or redness persists.
- Inhalation** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately.
- 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, 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 available.
- Flammability** Non-flammable.
- Fire hazard** This material will not burn or burns with difficulty. In a fire or if heated, a pressure increase will occur and the container may burst. May emit toxic fumes under fire conditions.
- Fire-Fighting Procedures** Use an extinguishing agent suitable for the surrounding fire. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment.

Section 6. Accidental Release Measures

- Spill Clean up** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Ingredient	Exposure limits
tetrachloroethylene	ACGIH TLV (United States, 3/2012). TWA: 25 ppm 8 hours. TWA: 170 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 685 mg/m ³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 25 ppm 8 hours. TWA: 170 mg/m ³ 8 hours. OSHA PEL Z2 (United States, 11/2006). TWA: 100 ppm 8 hours. CEIL: 200 ppm AMP: 300 ppm 5 minutes.

Personal Protective Equipment (PPE)

- Eyes** Splash goggles.
- Body** Chemical-resistant gloves. (Viton®)
- Respiratory** Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.



Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Clear Colorless.
pH	Not applicable.	Odor	Chlorinated hydrocarbon.
Boiling Point	121°C (249.8°F)	Vapor Pressure	1.9 kPa (14.2 mm Hg) [20°C]
Specific Gravity	1.61	Vapor Density	5.83 [Air = 1]
Solubility	Insoluble in the following materials: cold water and hot water.	Evaporation Rate	0.09 (Ether (anhydrous). = 1)
		VOC (Consumer)	0 % (w/w) 0 lbs/gal (0 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Avoid excessive heat, sparks or open flame which can cause hazardous thermal decomposition.
Hazardous Polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous Decomposition Products	Emits toxic fumes when heated to decomposition - Hydrogen chloride (HCl), Chlorine, Phosgene gas.

Section 11. Toxicological Information

Product/ingredient name	Result	Species	Dose	Exposure
tetrachloroethylene	LD50 Oral	Rat	2629 mg/kg	-

Section 12. Ecological Information

Environmental Effects Harmful to: Aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
tetrachloroethylene	Acute EC50 200 µg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 500000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 7500 µg/l Fresh water	Daphnia - Daphnia magna - Instar	48 hours
	Acute LC50 3.5 mg/l Marine water	Crustaceans - Elminius modestus	48 hours
	Acute LC50 4000 µg/l Fresh water	Fish - Jordanella floridae - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic EC10 1.77 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC mg/l Fresh water	Daphnia - Daphnia magna	21 days
Chronic NOEC 500 µg/l Fresh water	Fish - Pimephales promelas - Larvae	32 days	

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: U210, D039
Classification: Hazardous waste.
Origin: RCRA waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	UN1897	RQ Tetrachloroethylene or Perchloroethylene	6.1	III	
IMDG Class	UN1897	Tetrachloroethylene or Perchloroethylene. Marine pollutant (tetrachloroethylene)	6.1	III	

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

tetrachloroethylene

Clean Water Act (CWA) 307: tetrachloroethylene

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 known to the State of California to cause cancer.

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.

RLP/LMW