

# Material Safety Data Sheet



Superior Solutions

Zep, Inc.  
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Atlanta, GA 30318  
1-877-1-BUY-ZEP (428-9937)  
www.zep.com

## Section 1. Chemical Product and Company Identification

**Product name** FREEZE  
**Product use** Aerosol Gum and Wax Remover.  
**Product code** 0240  
**Date of issue** 10/14/09 **Supersedes** 09/16/04

## Emergency Telephone Numbers

**For MSDS Information:**  
Compliance Services 1-877-1-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  
1420 Seaboard Industrial Blvd.  
Atlanta, GA 30318

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## Section 2. Hazards Identification

### Emergency overview WARNING

CONTENTS UNDER HIGH PRESSURE. DO NOT STORE IN VEHICLES. VAPOR HARMFUL. Liquid can cause burns similar to frostbite.

**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.

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



### Acute Effects

#### Routes of Entry

#### Inhalation.

**Eyes** Can cause burns similar to frostbite. Direct contact with the eyes can cause irreversible damage, including blindness.

**Skin** Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

**Inhalation** Can cause central nervous system (CNS) depression. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea. Severe over-exposure can result in heartbeat irregularity (arrhythmia) and death.

**Ingestion** Unlikely in this form.

### Chronic effects

Repeated or prolonged exposure to the substance can produce damage to the heart.

### Carcinogenicity

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

### Product/ingredient name

ACGIH

IARC

EPA

NIOSH

NTP

OSHA

None.

Additional Information: See Toxicological Information (Section 11)

## Section 3. Composition/Information on Ingredients

### Name of Hazardous Ingredients

1,1,1,2 - TETRAFLUOROETHANE; hfc-134a

CAS number

811-97-2

% by Weight

95 - 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. If frostbite occurs, get medical attention.

**Skin Contact** In case of contact with liquid, warm frozen tissues slowly with lukewarm water. Continue to rinse for at least 10 minutes. If irritation, redness or discomfort is present, get medical attention immediately.

**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. Do not give adrenaline or similar drugs. Get medical attention if adverse health effects persist or are severe.

**Ingestion** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.

**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	CONTENTS UNDER PRESSURE. Contains gas under pressure; may explode if heated. May emit toxic fumes under fire conditions.
Fire-Fighting Procedures	Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion. Do not release runoff from fire to sewers or waterways. Fire-fighters should wear appropriate protective equipment.

**Section 6. Accidental Release Measures**

Spill Clean up	Large spills are unlikely due to packaging. Eliminate all ignition sources. Ensure ventilation is adequate if there is a risk of aerosol formation or vapor build-up.
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**Section 7. Handling and Storage**

Handling	Put on appropriate personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Watch for accumulation in low confined areas. Wash thoroughly after handling.
Storage	CONTENTS UNDER PRESSURE. 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. Store and use away from heat, sparks, open flame or any other ignition source. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Do not puncture or incinerate. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

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

1,1,1,2 - TETRAFLUOROETHANE; hfc-134a

**Exposure limits**AIHA WEEL (United States).  
TWA: 1000 ppm 8 hour(s).**Personal Protective Equipment (PPE)**

Eyes	Recommended: Safety glasses.
Body	Wear appropriate protective clothing to prevent skin contact.
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. 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	Gas. [Aerosol.]	Color	Clear. Colorless.
pH	Not applicable.	Odor	Ethereal. [Slight]
Boiling Point	-26.5°C (-15.7°F)	Vapor Pressure	101.3 kPa (760 mm Hg)
Specific Gravity	1.21	Vapor Density	3.6 [Air = 1]
Solubility	0.9 (g/l)	Evaporation Rate	>1 (Ether (anhydrous). = 1)
		VOC (Consumer)	0 (g/l).

**Section 10. Stability and Reactivity**

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: alkaline earth metals, oxidizing materials and strong alkalis
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	Carbon dioxide (CO <sub>2</sub> ), Carbon monoxide and hydrogen chloride.

**Section 11. Toxicological Information****Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
1,1,1,2 - TETRAFLUOROETHANE	LC50 Inhalation Gas.	Rat	500000 ppm	4 hours

**Section 12. Ecological Information**

**Environmental Effects** This product shows a low bioaccumulation potential.

**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: - (Not applicable.)  
Classification: - (Non-hazardous waste)

**Section 14. Transport Information**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT-Classification	3159	1,1,1,2-Tetrafluoroethane	2.2		

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** No products were found.

**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.

