

5/7/2015

**MATERIAL SAFETY DATA SHEET**

Trade Name: Johnsens Freeze 12 Leak Stop  
 MSDS NO. 6002  
 Revision Date: 04/11/2008  
 Date Printed 12/30/2008

Johnsens Freeze 12  
 Automotive Refrigerant  
 Replaces R-12 IN AC systems

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: Johnsens Freeze 12 Leak Stop  
 Chemical Family: Refrigerant gas/lubricant  
 Synonyms: None  
 Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300

Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
1,1,1,2-Tetrafluoroethane 811-97-2	35-50	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	10-25	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	.5-3	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
1,1,1,2-Tetrafluoroethane 811-97-2	35-50	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	10-25	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	.5-3	Not Listed	Not Listed	Not Listed

Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
1,1,1,2-Tetrafluoroethane 811-97-2	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	Not Listed	Not Listed	Not Listed

Other: Contains no other ingredients in concentrations >.1% that are now known to be hazardous as defined by OSHA.

**3. HAZARDS IDENTIFICATION****Emergency Overview:**

Warning! Content under pressure. May be fatal if inhaled. Gross inhalation overexposure may cause: respiratory track irritation, eye and skin irritation, central nervous system depression, headache, dizziness, anesthesia, drowsiness, loss of consciousness and death. Suffocation, if air is displaced by vapors. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin.

**HMIS Classification:**

Health: 1 Flammability: 2 Physical Hazard: 2

**NFPA Rating:**

Health: 2 Flammability: 2 Reactivity: 1

**4. FIRST AID MEASURES****Eye Contact:**

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

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### 4. FIRST AID MEASURES

**Ingestion:** DO NOT INDUCE VOMITING. Give nothing by mouth. Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

**Skin Contact:** In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and shoes, and launder before reuse. Use approved skin lotions or creams to replace lost skin oils. Treat for frostbite if necessary by gently warming affected area.

### 5. FIRE FIGHTING MEASURES

#### Flammable Properties

**Flash Point °F(°C):** >300 F.  
**Flash Point Method:** COC  
**Flammable Limits in Air - Lower (%):** Not Determined  
**Flammable Limits in Air - Upper (%):** Not Determined  
**Autoignition Temperature °F(°C):** Not Determined  
**Extinguishing Media:** Water fog, carbon dioxide, foam, dry chemical. Use water spray to keep containers cool that are exposed to heat or flames.

#### Protection Of Fire-Fighters:

**Special Fire-Fighting Procedures:** Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur. Wear approved positive-pressure self-contained breathing apparatus and protective clothing.

**Hazardous Combustion Products:** Carbon Dioxide. Carbon Monoxide.  
**Aerosol Comments:** NFPA Level 1 Aerosol

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective clothing and equipment to prevent skin and eye contact.

**Spill Procedures:** Wear protective equipment specified. Contain any liquid from leaking containers. Ventilate spill area. Soak up material with absorbent and place in chemical waste container.

**Action to be taken if material is released or spilled:** Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

**Environmental Precautions:** Keep away from drains.

### 7. HANDLING AND STORAGE

**Handling and Storage:** CAUTION: COMPRESSED GAS. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.

**Eyes:** Wear safety glasses or goggles to protect against exposure.

**Skin Protection:** Avoid skin contact. Wear protective clothing and gloves.

**Respiratory Protection:** Use in a well ventilated area.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Colorless gas with clear to yellow liquid.  
**Odor:** MILD ETHER LIKE  
**pH Value:** Not Determined  
**Vapor Pressure:** 67 PSIG @ 70 F  
**Vapor Density (Air=1):** 3.6 @ 25 C  
**Boiling Point (°F):** -15.5 F (Lowest Component)  
**Melting/Freezing Point:** Not determined.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Solubility In Water: SLIGHT  
Bulk Density at 20°C: 1.2 @ 25 C (g/cm3)  
Molecular Weight: Mixture  
Specific Gravity (H2O=1): 1.0 @ 70 F liquid approx.  
Viscosity: Not determined.  
Evaporation Rate: Not Determined  
VOC Content(%): Not determined.  
Decomposition Temperature: Not Known

## 10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.  
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.  
Materials to Avoid: Avoid contact with acidic, basic or oxidizing agents. Avoid contact with alkali or alkaline earth metals.  
Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. This material can be decomposed by high temperatures forming hydrofluoric acid and possibly carbonyl fluoride.  
Hazardous Polymerization: WILL NOT OCCUR

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Data:

Component	Route	Species	Dose
1,1,1,2-Tetrafluoroethane 811-97-2	Inhalation	Rats	LC50 1500 gm/m <sup>3</sup> /4H
1-Chloro 1,1-Difluoroethane 75-68-3	Inhalation	Rats	LC50 2050 gm/m <sup>3</sup> /4H
Butyl Benzyl Phthalate 85-68-7	Oral	Rats	LD50 2330 mg/kg

### Carcinogenicity:

Component	IARC	NTP	OSHA
1,1,1,2-Tetrafluoroethane 811-97-2	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	Group 3 (not classifiable)	Not Listed	Not Listed

## 12. ECOLOGICAL INFORMATION

Remarks: Ecological testing has not been conducted on this product.

## 13. DISPOSAL CONSIDERATION

Waste Classification: Not determined.  
Waste Management: Not determined.  
Disposal Method: Disposal should be made in accordance with federal, state and local regulations.

## 14. TRANSPORTATION INFORMATION

U.S. DOT:  
Proper Shipping Name: Consumer Commodity  
Hazard Class: ORMD  
UN/NA Number: NA  
DOT Packing Group: NA

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## 14. TRANSPORTATION INFORMATION

IMDG:  
**Proper Shipping Name:** Refrigerant Gas, n.o.s. (1,1,1,2-Tetrafluoroethane, 1-Chloro 1,1-Difluoroethane)  
**Hazard Class:** 2.2 (limited quantity)  
**Hazard Subclass:** Not determined.  
**UN No.:** UN 1078  
**Packing Group:** NA  
**Marine Pollutant:** No

## 15. REGULATORY INFORMATION

**US Federal Regulations:**

Component	SARA 313	SARA 302	TPQ	RQ
1,1,1,2-Tetrafluoroethane 811-97-2	Not Listed	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	Listed.	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	Not Listed	Not Listed	Not Listed	Not Listed

**SARA 311/312 Hazard Categories:** Not Determined.

**State Regulations:**

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
1,1,1,2-Tetrafluoroethane 811-97-2	Not Listed	Not Listed	Not Listed	Not Listed
1-Chloro 1,1-Difluoroethane 75-68-3	Not Listed	Not Listed	Not Listed	Not Listed
Butyl Benzyl Phthalate 85-68-7	Not Listed	Listed: December 2, 2005 Developmental toxin.	Not Listed	Not Listed

Component	New Jersey Right-to-Know List:
1-Chloro 1,1-Difluoroethane 75-68-3	Substance no. 0385 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430
Butyl Benzyl Phthalate 85-68-7	Substance no. 2896 Substance no. 3005

**U.S. TSCA:** The components of this product are listed on the TSCA Inventory.  
**Canadian Inventory:** The components of this product are listed on the Canadian DSL or NDSL Inventory.

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### Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

## 16. OTHER INFORMATION

**General Notes:**  
**Disclaimer:**

Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system. The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.