

MATERIAL SAFETY DATA SHEET

Trade Name: Wolo Handy Horn
MSDS NO. Wolo #490
Revision Date: 01/06/2012
Date Printed: 01/06/2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Wolo Handy Horn Part # 490
Chemical Family: Refrigerant Gas
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300
Supplier: Wolo Manufacturing Corp
1 Saxwood Street
Deer Park, NY 11729

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | OSHA TWA | OSHA STEL | OSHA SKIN |
|---|----------|------------|------------|------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | 95-100 | Not Listed | Not Listed | Not Listed |

| Component | Weight % | OSHA Z PEL | OSHA Z TWA | OSHA Z Ceiling |
|---|----------|------------|------------|----------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | 95-100 | Not Listed | Not Listed | Not Listed |

| Component | ACGIH TLV TWA | ACGIH TLV STEL | ACGIH TLV Ceiling |
|---|---------------|----------------|-------------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | Not Listed | Not Listed | Not Listed |

Other: Contents under pressure. Containers may rupture under fire conditions. Decomposition may occur.

3. HAZARDS IDENTIFICATION

Emergency Overview: Keep away from heat, sparks and flame. Content under pressure. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin. May decompose on contact with flames or extremely hot metal surfaces or higher temperatures (>250 C) to produce toxic and corrosive products including hydrofluoric acid and carbonyl halides. Gross inhalation overexposure may cause heart irregularities, unconsciousness or death. Vapor reduces oxygen available for breathing and is heavier than air. Workers with heart disease or compromised heart function should limit exposure to this material.

HMIS Classification: Health: 1 Flammability: 0 Physical Hazard: 2
NFPA Rating: Health: 1 Flammability: 0 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.
Ingestion: Not applicable - product is a gas at ambient temperatures.
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. Do not give adrenaline, epinephrin or similar drugs following exposure to this product.
Skin Contact: For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Get medical attention.

5. FIRE FIGHTING MEASURES

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5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C): NA - Gas
Flash Point Method: Not Applicable
Flammable Limits in Air - Lower (%): Not Applicable
Flammable Limits in Air - Upper (%): Not Applicable
Autoignition Temperature °F(°C): unknown
Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur.
Hazardous Combustion Products: May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Liquid and gas under pressure, overheating or overpressurizing may cause gas release and/or violent cylinder bursting. Container may explode if heated due to resulting pressure rise. Some mixtures of HFCs and/or HFCs, and air or oxygen may be combustible if pressurized and exposed to extreme heat or flame.
Aerosol Comments: NFPA Level 1 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact. Avoid breathing vapor. When airborne exposure limits are exceeded use NIOSH approved respiratory protection equipment appropriate to the material and/or its components.
Spill Procedures: Wear protective equipment specified. Avoid all sources of ignition; heat, sparks and open flames. Use Halogen leak detector or other suitable means to locate leaks or check atmosphere. Keep upwind. Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines.
Action to be taken if material is released or spilled: Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.
Environmental Precautions: Do not allow entry to the atmosphere. Recover, reclaim or recycle when practical.

7. HANDLING AND STORAGE

Handling and Storage: Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Use only in a well ventilated area. Do not reuse this container. CAUTION: COMPRESSED GAS. Keep away from heat and open flame. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure. Protect from light and heat

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin Protection: Avoid skin contact. Wear protective clothing and gloves.
Respiratory Protection: Use in a well ventilated area. An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquified gas.
Odor: MILD ETHER LIKE
pH Value: Not Determined
Vapor Pressure: 96 psia @ 25C
Vapor Density (Air=1): 3.6 (Air=1.0) @ 25C
Boiling Point (°F): -26.5 C @ 736 mm Hg
Melting/Freezing Point: not determined
Solubility in Water: Not Determined
Bulk Density at 20°C: not determined

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9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight: Mixture
Specific Gravity (H2O=1): 1.208 @ 77 F (25C)
Viscosity: Not determined.
Evaporation Rate: Not Determined
VOC Content(%): 0
Decomposition Temperature: not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Keep away from heat, sparks and flame. Do not expose to heat or store at temperatures above 120 F.
Materials to Avoid: Avoid finely powdered metals such as aluminum, magnesium or zinc. Strong oxidizers. Avoid contact with alkali or alkaline earth metals.
Hazardous Decomposition Products: Thermal decomposition products include hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

| Component | Route | Species | Dose |
|---|------------|---------|-------------------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | Inhalation | Rats | 4 hr LC50 > 567,000 ppm |

Carcinogenicity:

| Component | IARC | NTP | OSHA |
|---|------------|------------|------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | Not Listed | Not Listed | Not Listed |

12. ECOLOGICAL INFORMATION

Remarks: Aquatic Toxicity: 1,1,1,2-Tetrafluoroethane: 48 hour EC50 - Daphnia magna: 980 mg/l, 96 hour LC50 - Rainbow trout: 450 mg/l ; 1,1,1-Trifluoroethane: 96 hour LC50 - Rainbow trout: >40 mg/l

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. Recover, reclaim or recycle when practical.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/NA Number: NA
DOT Packing Group: NA

IMDG:

Proper Shipping Name: 1,1,1,2-Tetrafluoroethane (Refrigerant Gas R 134a)
Hazard Class: 2.2
Hazard Subclass: Not determined.
UN No.: UN3159

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14. TRANSPORTATION INFORMATION

Packing Group: NA
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

| Component | SARA 313 | SARA 302 | TPQ | RQ |
|---|------------|------------|------------|------------|
| 1,1,1,2-Tetrafluoroethane (HFC-134a) 811-97-2 | Not Listed | Not Listed | Not Listed | Not Listed |

SARA 311/312 Hazard Categories: Acute, Chronic, Pressure

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 (HFC-134a) 811-97-2 | Not Listed | Not Listed | Not Listed | Not Listed |

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.

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.