

MATERIAL SAFETY DATA SHEET

(In compliance with OSHA Communication Standard 09 CPR 1910.1200 Dept. of Labor)

Section I Product Identification

Product Name: Choice Refrigerant R-420A
Chemical Name: Compound: 1,1,1,2-tetrafluoroethane & 1-chloro-1,1-difluoroethane.
Chemical Family: Refrigerant Gas for Air Conditioning Systems
Contact: RMS of Georgia, LLC
Address: 610 McFarland 400 Drive, Alpharetta, GA 30004
Telephone #: 1-800-347-5872 Fax # 770-777-0599
Emergency #: ChemTrec 1-800-424-9300

Section II Hazardous Ingredients/ Identity Information

| Hazardous Components: | ACGIH TLV | OSHA PEL | |
|----------------------------------|-----------|------------|------------|
| 134a 1,1,1,2-tetrafluoroethane | 1000ppm | | not listed |
| 142b 1-chloro-1,1-difluoroethane | 1000ppm | not listed | |

Section III Physical/ Chemical

Boiling Point: -13⁰F Solubility in water: nil
Vapor pressure: 66.7 psig at 70°F Volatiles 100%
Specific gravity (H₂O=1): 1.25 Melting point...gas
Appearance/ Odor: Clear/ Faint ethereal
Freezing Point: N/A
Description: A blend of 134a, 142b and 2% A Proprietary Lubricant

Section IV Health Hazard Data

| Chemical Name | CAS No. | Wt. % | Exposure Limit |
|-----------------------------|----------|-------|-------------------------|
| 1,1,1,2-tetrafluoroethane | 811-97-2 | 88% | No limit (OSHA/ AGCIII) |
| 1-chloro-1,1-difluoroethane | 75-68-3 | 12% | 1000 ppm |

If in Eyes: Avoid eye contact. Direct contact with liquified/ pressurized gas or frost particles may cause frostbite and possibly severe and permanent eye damage.

If on Skin: Avoid direct skin contact. Direct contact with liquified/pressurized gas or frost particles may cause severe burns or frostbite ("cold" burns).

If Inhaled: Avoid inhalation of high concentrations of gas. Acute overexposure may result in irritation of the throat and lungs. High concentrations in confined areas can displace oxygen and can cause dizziness, unconsciousness, and even death with longer exposure. Long term exposure to this product may cause symptoms of drowsiness, dullness, numbness, headache, dizziness, nausea and increase heart rate.

Ingestion: Not applicable by this route of exposure. This product is regarded as having a low order of toxicity.

Health Effects Data: Inhalation of this product at high concentrations is capable of producing damage to the central nervous system, cardiovascular system, respiratory system, and skin; however, the heart appears to be the most sensitive organ. Choice R-420A is not carcinogenic, mutagenic, a skin sensitizer, or a reproductive toxin according to the OSHA Hazard Communication Standard (HCS) {29 CFR 1910.1200}.

Section V Fire & Explosion Hazard Data

Flash Point: Non-Flammable - - Flammable Limits LEL: N/A UEL: N/A

Extinguishing Media: Extinguishing Media is generally not necessary. This material is nonflammable.

Special Fire Fighting Procedures: Use water to keep fire exposed containers cool and to protect personnel during shutoff. If possible, stop the flow of gas or vapor, then fight fire according to types of burning material. If flow cannot be safely shut off, allow fire to burn itself out. Cool cylinders with water spray until well after fire is out. Upon exposure to intense heat or flame, container may vent rapidly or explode.

Unusual Fire and Explosion Hazards: Gas vapors can collect and remain in low spots even after the source of gas has been eliminated. Contact with certain reactive metals may result in formation of explosive or exothermic reactions under specific conditions (e.g. very high temperatures and/or appropriate pressures). Caution: Contents are under pressure and can explode when exposed to heat or flames.

PRODUCT NAME: Choice R-420A

Section VI Reactivity Data

Stability: Stable

Incompatibility (Materials To Avoid): Finely divided metals, magnesium and alloys containing more than 2% magnesium. Can react violently in the presence of alkali or alkali metals such as sodium, potassium or barium.

Hazardous Polymerization: NONE

Conditions to avoid: High temperatures, above 295⁰ F

Hazardous Decomposition Products: CO, CO₂, Hydrogen chloride gas, hydrofluoric acid fumes, halogen acids.

Section VII Emergency/ First Aid Procedures:

If in Eyes: Flush with water. (At least 15 minutes) Get medical attention if irritation persists.

If on Skin: If skin is exposed to liquified/ pressurized gas or frost particles, soak with warm water. If frost bite occurs, do not put frozen area into hot water or place in front of a heat source.

If Swallowed: Seek medical help. Do not induce vomiting.

If Inhaled: Remove person to fresh air. Seek medical help if irritation persists. If chronically abused and breathing stops, give artificial respiration.

Section VIII Precautions For Safe Handling And Use

If Material is Released Or Spilled: Evacuate all personnel from effected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs.

Waste Disposal Method: Dispose of according to local and state laws. Wrap in newspaper and dispose of in trash. Discarded product is not a hazardous waste under RCR, 40 CFR 261. This material is not specifically listed as hazardous waste but can be classified as hazardous waste if contaminated with other hazardous materials.

Section IX Special Handling/ Precautions

Storage: Never expose cylinders to excessive heat. Cylinders should be stored in a well ventilated area. Storage should not exceed 50⁰ C or 130⁰F and should be free of oxidizers or corrosive materials. Handling: Do not drag, roll, or slide cylinders: Secure cylinder at all times. Use separate control valves or pressure reducing regulators to safely discharge rate. Compressed gas cylinders must not be filled by the owner or with the owner's consent. This is a violation of federal law.

Section X Special Protection Data/ Control Measures

Respiratory: None for proper use. Maintain adequate ventilation. Preferably, use outdoors.

Eyes: Safety glasses are needed.

Gloves: Use butyl or neoprene rubber gloves for prolonged contact.

Other Equipment: Safety Shoes

Section XI Special Precautions

The information contained herein is considered accurate. However no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user, thereof.

The vendor assumes no responsibility for injury, or damage resulting from the inappropriate use of this product.

California SARA Information- Full Disclosure Data.

This product contains no known or suspected carcinogens, pathogens or mutagenes. The product contains 0% volatile organic chemicals. Contents: 134a Refrigerant ,142b Refrigerant

Section XII Toxicological Information

R-134a

Immediate (Acute) Effects:

LC50: 4 hr (rat) > 359,300 ppm v/v

Cardiac Sensitization threshold: 80,000 ppm (dog) 49,800 ppm v/v

Delayed (Subchronic and Chronic) Effects

Not Mutagenic in four tests

Teratogenic NOEL (rat & rabbit) 40,000ppm

Subchronic Inhalation (rat) NOEL 50,000 ppm

Chronic NOEL 10,000 ppm

Other Data

Metabolism<0.5% as CO₂ in tests at 50,000 ppm, late developing tumors were found.

Section XII **Toxicological Information**

R-142b

Immediate (Acute) Effects:

LC₅₀: 4hr. (rat) > 106,000 ppm v/v
Cardiac Sensitization NOEL – 25,000 ppm v/v

Delayed (Subchronic and Chronic) Effects:

Genetic Studies:
Ames Assay - Weak Positive
Cell Transformation – Equivocal
Dominant Lethal – Not Active
Rat micronucleus – Not Active

(Source: Genetron 134a & 142b MSDS)

Section XIII **Transportation Information**

DOT Shipping Information: Proper Shipping Name- Refrigerant Gases, n.o.s., (1,1,1,2-tetrafluoroethane & 1-chloro-1,1-difluoroethane) 2.2 UN1078
Shipping Label/ Placard Non-Flammable Gas- Hazard Class 2.2

| | |
|--------------|-------------------------|
| NFPA Rating | 0 = lowest, 4 = highest |
| Health | 0 |
| Flammability | 0 |
| Reactivity | 1 |
| Special | 1 |

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