WEITRON

SDS Information

Section 1. **CHEMICAL PRODUCT SECTION**

Product Name: R-22 Refrigerant
Date Prepared: 05-2015

Manufacturer: Weitron, Inc.
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Newark, DE 19702
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Section 2. **HAZARDS IDENTIFICATION**

PRODUCT HAZARD CATEGORY: Gases under pressure. Liquefied Gas
LABEL CONTENT: **Pictogram**

SIGNAL WORD: **WARNING**
HAZARDOUS WARNINGS: Contains gas under pressure; may explode if heated.
HAZARDOUS PREVENTION MEASURES: Protect from sunlight. Store in a well-ventilated place.
OTHER HAZARDS: Misuse or intentional inhalation abuse may lead to death without warning. Vapor is heavier than air and can cause suffocation by reducing oxygen available for breathing. Rapid evaporation of the liquid may cause frostbite.

Section 3. **COMPOSITION/INFORMATION ON INGREDIENTS**

CAS #	CHEMICAL FAMILY Description	Weight %
75-45-6	Chlorodifluoromethane	100 %

This product contains no known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Emergency Overview:

Contents under pressure. “Frostbite-like” effects may occur if the liquid or escaping vapors

contact the eyes or skin. Inhalation overexposure may cause: Central nervous system depression with dizziness, confusion, loss of coordination, drowsiness, unconsciousness or death. Suffocation if air is displaced by vapors.

Potential Health Effects:

Eyes: Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes.

Skin: Frostbite-like" effects may occur if the liquid or escaping vapors contact the skin.

Inhalation: Inhalation overexposure may cause: Central nervous system depression with dizziness, confusion, loss of coordination, drowsiness, unconsciousness or death. Suffocation, if air is displaced by vapors.

Ingestion: Nausea and diarrhea are possible.

Carcinogenicity: No known cancer hazards.

HMIS Classification:

Health	1
Flammability	0
Reactivity	1

Section 4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact:

Wash affected area immediately with large amounts of soap or water for 15 minutes. Remove contaminated clothing and shoes, and wash before reusing. Treat affected area for frostbite if necessary by gently warming. May irritate skin. If irritation continues contact Physician.

Inhalation:

If inhaled, immediately remove to area with fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Contact Physician..

Ingestion:

Is not considered a potential route of exposure.

Advice to Physician

Because of the possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with caution and only in situations of emergency life support.

Section 5. FIRE FIGHTING MEASURES

Flash Point:

Does not flash

Flammable limits in Air

LEL: None

UEL: None
Based on ASHRAE Standard 34 with match ignition

Thermal decomposition:
632°C (1,170°F)

Extinguishing Media:
Water, carbon dioxide, foam or dry powder.

Fire & Explosion Hazards:

Not flammable at ambient temperatures and atmospheric pressure. Material will become combustible when mixed with air under pressure and exposed to ignition sources. Hazardous thermal decomposition products (Carbon oxides, Hydrogen Fluoride, Carbonyl fluoride, Hydrogen Chloride, Carbonyl chloride)

Fire Fighting Instructions:
Contents under pressure and container may rupture when exposed to high temperature. Product may act as asphyxiate. As in any fire, wear self-contained breathing apparatus pressure- demand MSHA/NIOSH (approved or equivalent) and full protective gear. Contain runoff water. Contaminated extinguishing water must be disposed of in accordance with applicable regulations. Avoid breathing smoke, fumes, and decomposition products.

Section 6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)
Evacuate personnel to safe areas. Ventilate area. Wear appropriate personal protective equipment

Initial Containment
Contain spilled material. Do not allow material to enter soil or surface water. Product evaporates

Spill Procedures
Contain spilled material. Large spillage should be dammed-off and pumped into containers.

Section 7. HANDLING AND STORAGE

Handling (Personnel)
Do not breathe vapors. Do not get in eyes, on skin or clothing. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Use appropriate personal protective equipment when using material. Do not puncture or drop cans. Do not expose cans to high heat or open flame.

Handling (Physical Aspects)
Avoid contact with strong oxidizing agents. Avoid contact with eyes and skin. Keep away from children.

Storage Precautions
Protect containers from physical damage. Do not Puncture, incinerate or store cans above

120ºF. Keep in cool dry area out of direct sunlight.

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls:

Good general ventilation should be sufficient under normal use conditions.

Eye/Face Protective Requirements:

Wear safety glasses, splash goggles or face shield. Where contact with this material is likely, eye protection is recommended.

Skin Protection:

Wear protective gloves to minimize skin contamination. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

Respiratory Protection:

Under normal use conditions, with adequate ventilation, no special handling equipment is required.

Miscellaneous

Use good personal hygiene practices; limit exposure to product whenever possible to minimize clean-up.

Exposure Guidelines

Exposure limit values

Chlorodifluoromethane

TLV	1,000 ppm	TWA

TLV is the Threshold Limit Value as determined by the ACGIH

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquefied Gas
Color:	Colorless
Odor:	Slight ethereal odor
Boiling Point:	-40.8°C (-41.4°F)
Solubility in Water:	2.6g/L at 77^{o}F (25^{o}C)
Vapor Pressure:	121.4 psig @ 70°F
Vapor Gravity:	Not Determined
Density:	1.194 g/cm^{3} @77^{o}F (25^{o}C)
PH:	<7
Volatile Organic Compounds (VOC)	Not Determined

Flash point & additional flammability data found in section 5.

Section 10. STABILITY AND REACTIVITY

Stability

This compound is stable at ambient conditions.

Polymerization

Hazardous polymerization will not occur

Conditions to avoid

Do not mix with air above atmospheric pressure or oxygen. Do not puncture, incinerate or store cans above 120ºF. Keep in cool dry area out of direct sunlight.

Incompatibility with other materials

Avoid contact with strong oxidizing agents. Incompatible with alkali or alkaline earth metals – powdered aluminum, Zink, etc.

Decomposition

Avoid high temperatures or open flames which can decompose material forming hydrofluoric acid, hydrochloric acid, and possibly carbonyl halides.

Section 11. TOXICOLOGY INFORMATION

Dermal	: not applicable
Oral	: not applicable
Inhalation 4 h LC50	: 220000 ppm, rat
Inhalation	: dog Cardiac sensitization
Skin Irritation	: No irritation, rabbit Not expected to cause skin irritation based on expert review of properties of the substance No skin irritation, human
Eye Irritation	: No irritation, rabbit Not expected to cause skin irritation based on expert review of properties of the substance No skin irritation, human
Skin Sensitization	: Did not cause sensitization on laboratory animals, guinea pig Not expected to cause sensitization based on expert review of the properties of the substance Did not cause sensitization on humans
Repeated dose toxicity	: Inhalation Rat No toxicologically significant effects were found
Carcinogenicity	: Overall weight of evidence indicates that the substance is not carcinogenic An increased incidence of benign tumors was observed in laboratory animals
Mutagenicity	: Did no cause genetic damage in animals Did not cause genetic damage in cultured mammalian cells Experiments showed mutagenic effects in cultured bacterial cells
Reproductive toxicity	: Animal testing showed no reproductive toxicity
Teratogenicity	: Animal testing showed effects on embryo-fetal development at level equal to or above those cause maternal toxicity
Further information	: Cardiac sensitization threshold limit: 175000 mg/m^3

Section 12. **ECOLOGICAL INFORMATION**

Aqua Toxicity

96 h LC50	: Zebra fish 777 mg/L
72 h EC50	: Algae 250 mg/L
48 h EC50	: Daphnia magna (water flea) 433 mg/L

Section 13. **DISPOSAL CONSIDERATIONS**

Waste Disposal

Can be used after re-conditioning. Recover by distillation or remove to a permitted waste disposal facility. Comply with Federal, State, and local regulations

Environmental Hazards

Empty Pressure Vessels should be returned to the supplier

Section 14. **TRANSPORTATION INFORMATION**

US DOT Information:

Shipping Name	: Chlorodifluoromethane
Product Label	: Chlorodifluoromethane
Shipping Class	: 2.2
UN/NA #	1018

ICAO/IATA

Shipping Name	: Chlorodifluoromethane
Shipping Class	: 2.2
UN/NA#	: UN1018
Exceptions	: Can qualify for limited quantity under special provisions
Other information	: Non-flammable

IMDG

Shipping Name	: Chlorodifluoromethane
Shipping Class	: 2.2
UN/NA#	: UN1018
Exceptions	: Can qualify for limited quantity under special provisions
Other information	: Non-flammable

Other Transportation Information:

The Transport information may vary with the container and mode of shipment.

Section 15. Miscellaneous **REGULATORY INFORMATION**

Information

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA)

This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS)

SARA 313 Regulated Chemicals : Chlorodifluoromethane

Pa Right to know Regulated Chemicals :Substances on the Pennsylvania Hazardous Substances List present at concentrations of 1% or more: Chlorodifluoromethane

NJ Right to know Regulated Chemicals :Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more: Chlorodifluoromethane

This material or all of its components are listed on the Canadian Domestic Substances List (DSL)

Section 16. OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. **However, neither Weitron Inc. 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.