

MATERIAL SAFETY DATA SHEET

DICHLORODIFLUOROMETHANE, TECHNICAL

NSN:

Manufacturer's CAGE: OETK4
 Part No. Indicator: 100-R12
 Part Number/Trade Name: REFRIGERANT GAS R-12

General Information

Item Name: DICHLORODIFLUOROMETHANE, TECHNICAL
 Company Name: RemTec International
 Company's Street: 1100 Haskins Road
 Company's City, State, Zip: Bowling Green, Ohio, 43402, USA
 Company's Information Phone: 419-867-8990 Fax: 419-867-7449
 Company's Emergency Phone: PERS, 800-633-8253; 801-629-0667 (International)
 Date MSDS Prepared: 12-29-2006 Revise Date: 12/02/2009
 MSDS Preparer's Name: RemTec
 MSDS Serial Number: MSDSR12.doc
 Specification Number: ARI 700
 Spec Type, Grade, Class: 12 Type
 Hazard Characteristic Code:
 Unit of Issue: Pound Type of Container: Cylinder
 Unit of Issue Container Quantity: 950 lbs., 1750 lbs. Net Unit Weight: 1450 lbs., 3050 lbs.

Ingredients/Identity Information

Proprietary: No
 Ingredient: DICHLORODIFLUOROMETHANE (SARA III)
 Ingredient Sequence Number: 01
 Percent: 100.00
 NIOSH (RTECS) Number: PA8200000
 CAS Number: 75-71-8
 OSHA PEL: 1000 ppm, 4,950 mg/m³, 8 Hr. TWA
 ACGIH TLV: 1000 ppm; 9192
 Cercla RQ: 5000 lbs
 Other Recommended Limit: NONE SPECIFIED

Physical/Chemical Characteristics

Formulation: CCl₂F₂ Molecular Weight: 120.91
 Appearance and Odor: LIQUIFIED GAS, COLORLESS, SLIGHT ETHEREAL ODOR
 Boiling Point: -29.8°C (-21.6°F)
 Vapor Pressure (25°C): 94.5 psia Critical Pressure: 598.3 psia
 Vapor Density (25°C): 4.26 (Air = 1.0) Liquid Density (77°F): 81.84 lb/ft³
 Density (25°C): 1.315 g/cc - Liquid
 Decomposition Temperature: UNKNOWN Critical Temperature: 111.8°C
 Evaporation Rate and Ref: >1 (CCl₄=1)
 Solubility in Water (25°C): 0.028 WT% at 1 atm
 Percent Volatiles : 100 WT%
 Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

Flash Point:	None
Extinguishing Media:	Use Water Fog, Carbon Dioxide, Foam, or Dry Chemical
Fire Fighting Instructions:	Wear fire fighting protective equipment and self-contained breathing apparatus. Cool fire exposed cylinders with water spray.
Fire and Explosion Hazards:	Heat of fire may produce hazardous decomposition products and vapors.

Reactivity Data

Stability:	YES
Conditions to Avoid (Stability):	High heat, open flames and other sources of ignition
Materials to Avoid:	Strong oxidizing agents; Alkali or Alkaline earth metals (POWDERED Al, Zn, Be, etc.)
Hazardous Decomp. Products:	Hydrochloric acid, hydrofluoric acid, possible carbonyl halides.
Hazardous Polymerization:	NO
Conditions to Avoid (Poly)	NOT APPLICABLE

Health Hazard Data

LD50-LC50 Mixture:	INHALATION 30-MINUTE LC50: 800,000 ppm in Rats ORAL LD50: >1000 mg/kg in Rats, NO DEATH
Route of Entry	Inhalation: YES Skin: NO Ingestion: NO
Health Hazard Acute and Chronic:	Vapor is heavier than air and can cause suffocation by replacing available oxygen for breathing. High concentrations of vapor may cause dizziness, narcosis, cardiac irregularities, unconsciousness or death. Liquid can cause frostbite.
Carcinogenicity	NTP: NO IARC: NO OSHA: NO
Explanation of Carcinogenicity:	NOT LISTED as a CARCINOGEN by IARC, NTP, OSHA
Signs/Symptoms of Overexposure:	Dizziness, shortness of breath, narcosis, cardiac irregularities, unconsciousness, death, frostbite.
Medical Cond. Aggravated by Exp:	Individuals with heart (cardiovascular) or respiratory disorders may be at an increased risk from exposure.
Emergency/First Aid Procedures:	Remove victim to fresh air. Give oxygen or CPR if needed. Do not give epinephrine or similar drugs. Eye or skin irritant flush with water for 15 minutes. Treat for frostbite. Contact doctor in all cases.

Precautions for Safe Handling and Use

Steps if Material is Released/Spill:	Keep upwind, ventilate area-especially low places. Remove open flames and heating elements. Disperse gas with floor level forced air.
Neutralizing Agent:	NONE
Waste Disposal Method:	Recycle or reclaim by sending to permitted recycling or waste facility. Contact your local environmental officer. Dispose of in accordance with all federal, state, and local regulations.
Precautions-Handling/Storing:	Store in cool, dry, well ventilated area. Do not place in

Other Precautions: direct sunlight or heat above 125°f. Protect from physical damage.
 Avoid eye and skin contact. Do not breath vapors, mists, or sprays. Avoid hot surfaces, open flames, cigarette smoking.

Control Measures

Respiratory Protection: None normally required for vented work. Wear NIOSH-approved self-contained breathing apparatus if >TLV.

Ventilation: Local exhaust ventilation. Large release-mechanical ventilation for low places.

Protective gloves: Lined butyl gloves

Eye protection: Chemical splash goggles

Other protective equipment: Use impervious clothing to minimize exposure. Eye wash and safety shower recommended.

work hygienic practices: Wash thoroughly after handling and before eating. Do not smoke in area while product is in use.

Supplemental Safety & Health Data: NONE

Transportation Data

Trans Data Review Date:

DOT PSN Code:

DOT Proper Shipping Name: DICHLORODIFLUOROMETHANE or REFRIGERANT GAS R12

DOT Class: 2.2

DOT ID Number: UN 1028

DOT Label: NONFLAMMABLE GAS

IMO PSN Code: FKB

IMO Proper Shipping Name: DICHLORODIFLUOROMETHANE or REFRIGERANT GAS R12

IMO Regulations Page Number: 2129

IMO UN Number: 1028

IMO UN Class: 2.2

IMO Subsidiary Risk Label: -

IATA PSN Code:

IATA UN ID Number: 1028

IATA Proper Shipping Name: DICHLORODIFLUOROMETHANE or REFRIGERANT GAS R12

IATA UN Class: 2.2

IATA Label: NON-FLAMMABLE GAS

AFI PSN Code

AFI Proper Shipping Name: DICHLORODIFLUOROMETHANE or REFRIGERANT GAS R12

AFI Class: 2.2

AFI ID Number UN1028

AFI Label: NON-FLAMMABLE GAS

AFI Basic Pac Ref: 6-6,6-8

Disposal Data

Label Required: YES

Technical Review Date: 14Sept97

MFR Label Number: R12LAB.WPD

Label Status: F

Common Name:	DICHLORODIFLUOROMETHANE or REFRIGERANT GAS R12
Signal Word:	WARNING
Acute Health Hazard-Moderate	X
Contact Hazard-Moderate:	X
Fire Hazard-Slight:	X
Reactivity Hazard-None:	X
Special Hazard Precautions:	Vapor is heavier than air and can cause suffocation by replacing available oxygen for breathing. Store and use with adequate ventilation. High concentrations of vapor may cause dizziness, narcosis, cardiac irregularities, unconsciousness or death. Liquid can cause frostbite. Remove victim to fresh air. Give oxygen/CPR if needed. Do not give epinephrine or similar drugs. Eye and skin irritant flush with water for 15 minutes. Treat for frostbite. Contact doctor in all cases.
Protect Eye:	Y
Label Name:	RemTec International
Label Street:	1100 Haskins Road
Label City:	Bowling Green, OH 43402 USA

"Information contained herein is provided without warranty. RemTec International will not be liable for any damage which may result from the use or reliance on any information contained herein."

Sara 313 Supplier Notification

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR372).

CAS Number: 75-71-8

Dichlorodifluoromethane: 100% by weight

OSHA requires that you must provide copies of this MSDS to all of your customers who purchase this product.