



# Material Safety Data Sheet (MSDS-DIC)

PRODUCT IDENTIFICATION	
<b>Product Name</b>	Sercon R-12
<b>Trade Names and Synonyms</b>	Dichlorodifluoromethane, Refrigerant 12, R-12, CFC-12
<b>Manufacturer/Distributor</b>	Technical Chemical Company 10737 Spangler Rd. Dallas, TX 75220 214-556-1421  Various others
<b>Transportation Emergency</b>	<b>800-255-3924 (24 hrs -- CHEM • TEL)</b>

HAZARDOUS COMPONENTS			
Material or Component	CAS No.	TLV	PEL
Dichlorodifluoromethane	00075-71-8	1000 ppm	NA
N/A = Not assigned    NE = Not established			

PHYSICAL DATA	
<b>Boiling Point</b>	-21.6°F
<b>Vapor Pressure</b>	79.8 psig @ 77°F
<b>Liquid Density</b>	
<b>Solubility in Water</b>	Insoluble
<b>Specific Gravity</b>	1.31
<b>Melting Point</b>	N/A
<b>Vapor Density</b>	2.32 lb/ft <sup>3</sup> @ 77°F
<b>Evaporation Rate</b>	No Data
<b>Appearance and Odor</b>	Colorless liquid and vapor, very slight ethereal to odorless

HAZARDOUS REACTIVITY
Stable and relatively nonreactive. Incompatible with certain elastomers, alkali or alkaline earth metals, powdered aluminum, zinc, beryllium, etc. Avoid conditions where CFC-12 may contact open flames or extremely hot metal surfaces as product may decomposed to form HF, HCl, and traces of carbonyl halides (i.e., phosgene)

FIRE AND EXPLOSION DATA	
<b>Flashpoint</b>	Nonflammable and nonexplosive
<b>Extinguishing Media</b>	When fighting fire or involved with this product, use self contained breathing apparatus. Protective clothing should minimize exposed skin and include goggles, full face shield if possible and lined rubber gloves.
<b>Decomposition Products Under Fire Connotations</b>	If CFC-12 contacts open flames or extremely hot metal surfaces it may decompose to form HF, HCl, and traces of carbonyl halides.
<b>“Empty” Container Warning</b>	Disposal of waste material or residue may be subject to federal , state , and local regulation. Consult with appropriate regulatory agency before discharging or disposing of waste material. Before transporting waste material see 49 CFR 172.
<b>Special Fire Fighting Procedures</b>	Consult the 2000 Emergency Guidebook, Guide 126 for futher details

### HEALTH HAZARDS

<b>Symptoms of Exposure</b>	Humans exposed to 40,000 ppm (for 14 minutes) experienced a generalized tingling sensation, humming in the ears, apprehension and slurred speech. At 110,000 ppm (for 11 minutes) , the subject reportedly showed a decrease in consciousness with amnesia occurring in about 10 minutes, which was proceeded with an irregular heartbeat. Humans exposed to 20,000 ppm for a short time experienced significant eye irritation as well as central nervous system (CNS) effects, all of which disappeared within minutes after return to fresh air.
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### FIRST AID

<b>Inhalation</b>	<b>Vapor contact — primary route of exposure.</b> If inhaled, remove to fresh air. Keep warm and at rest. If breathing is difficult give oxygen. If not breathing, give artificial respiration and check for pulse. If no pulse, start CPR. Do not give stimulants (adrenaline, epinephrine or hand-held aerosols). Keep patient at rest for 24 hours after overexposure. <i>Note: Human poisoning potential:</i> Sniffing fluorocarbon propellants for their intoxicating effects is extremely dangerous and death may occur without warning. Fluorocarbons exhibit very toxic properties (asphyxiation, cardiac arrhythmia's) when sniffed; however because of variations in response, it is difficult to predict which symptoms will be exhibited following exposure.
<b>Eye Contact</b>	Vapor contact — Flush with water for at least 20 minutes. Liquid contact — Flush exposed area with lukewarm water or otherwise warm skin slowly. Frostbite is probable. Call a physician.
<b>Skin Contact</b>	Vapor contact — Flush with water for at least 20 minutes. Liquid contact - Flush exposed area with lukewarm water or otherwise warm skin slowly. Frostbite is probable. Call a physician.
<b>Ingestion</b>	Liquid — Not probable. If ingested, keep patient calm if conscious, and get to a physician immediately. Frostbite is probable, indicated by necrosis of lip and tongue (contacted tissue), blanching of skin, pain and tenderness. Warm skin slowly.

### SPILL OR LEAK PROCEDURES

<b>Spill/leak response</b>	In the event of a spill or leak keep upwind. Ventilate enclosed spaces until gas is dispersed. Do not smoke or operate internal combustion engines in immediate vicinity. Because of its suspected influence on stratospheric ozone reduction CFC-12 is regulated from non-essential use as a propellant in the U.S.A.
<b>Waste disposal</b>	Disposal of waste material or residue may be subject to federal, state, or local regulation. Before transporting waste material see 49 CFR 172.

### SPECIAL PROTECTION INFORMATION

<b>Ventilation</b>	Use only with adequate ventilation.
<b>Eye</b>	Safety glasses or goggles plus a safety shield.
<b>Gloves</b>	Lined rubber gloves should be worn.
<b>Other</b>	No smoking. Protect from sources of ignition. Wash hand after handling. Safety shoes, safety shower, eyewash "fountain", and chemical resistant overgarments are recommended.

### SPECIAL PRECAUTIONS

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### STORAGE CONDITIONS

Store in cool place. Contents under pressure. Cylinder may burst if heated. Keep away from direct sunlight and temperatures over 120° F. Do not throw into fire or incinerator.,

### SHIPPING INFORMATION

Basic Description	UN1028, Dichlorodifluoromethane, 2.2
DOT Label & Placard	Non-flammable gas

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