Chemtronics®

MSDS

Material Safety Data Sheet

JUL 16 1993

E-Series® Contact Cleaner/Degreaser 2000
ES1202, ES2202

IDENTIFICATION

Name:
Contact Cleaner 2000

Chemical Family:
Chlorinated Hydrocarbon/ Alcohol Solvent

Formula:
Proprietary Composition

Manufacturer:
Chemtronics, Inc.
8125 Cobb Center Drive
Kennesaw, GA 30144

Medical/Transportation Emergency Phone:
1-800-424-9300 (Chemtrec)
(404) 424-4888
(404) 424-4267 (Fax)

PHYSICAL DATA

Boiling Point: 90˚F

Melting Point: N/A

Vapor Pressure:
10 mm Hg @ 70˚F

Evaporation Rate >1 (Butyl acetate=1):

Vapor Density >1 (Air=1)

Appearance: Clear

Solubility in Water:
Negligible

Form: Liquid

Color: Colorless

Specific Gravity (Water=1)
1.23

Odor: Ethereal odor

INGREDIENTS

Material(s):	CAS Registry No.(s):
1,1-Dichloro-1-fluoroethane	1717-00-6
Denatured Alcohol	64-17-5
Methylcyclohexane	108-87-2
Nitroethane	79-24-3
Chlorodifluoromethane	75-45-6
Carbon Dioxide	124-38-9

HAZARDOUS REACTIVITY

Stability: Material is stable. Product vapor is flammable. Use only in adequately ventilated ares. Avoid spraying near open flames or red hot surfaces. Do not heat containers above 120˚F.

Decomposition or By-products: Thermal decomposition may evolve hydrogen chloride, hydrogen fluoride and possible chlorine gas. Oxides of carbon and incompletely combusted hydrocarbons may also evolve.

Incompatibility: Reacts with caustic and certain molecular sieves, slowly releasing vinyliden chloride, which can form explosive peroxides on exposure to air.

Polymerization: Will not occur.

FIRE AND EXPLOSION DATA

Flash Point: None

Method: TCC

Autoignition Temperature: Unknown

Flammable Limits in Air, % by Vol.:
Lower: Unknown
Upper: Unknown

Autodecomposition Temperature: Unknown

Fire and Explosion: Containers may develop pressure under fire conditions and may vent, rupture or explode and add to flying or falling debris. Decomposition may occur producing toxic gases.

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam or water spray.

Special Fire Fighting Instructions: Self-contained breathing apparatus (SCBA) may be required if containers rupture and contents are released under fire conditions. Water spray may be effective in cooling fire exposed containers and in dispersing product vapor. Avoid spreading burning liquid with water used

HEALTH HAZARD INFORMATION

Principal Health Hazards--Routes of Entry:
Inhalation: Vapors are heavier than air and can displace oxygen available for breathing.

1,1-Dichloro-1-fluoroethane	ALC/Rats	50,200 ppm/6 hr
	LC50/Rats	62,000 ppm/4 hr
Ethyl Alcohol	LC50/Rats	20,000 ppm/10 hr
Methylcyclohexane	LC50/Mouse	41,500 mg/m3/24hrs
	No toxic effects noted.	
Chlorodifluoromethane	LC50/Mouse	28 pph/30 min.
	Change in motor activity, muscle weakness.	
Carbon Dioxide	LCLo/Human	9 pph/ 5 min.
	No toxic effects noted.	

Eye: Contact with liquid product may cause temporary discomfort.

Ethyl Alcohol	Rabbits	100 mg/24 hr Moderate

Ingestion: Ingestion of this product may result in irritation of the lining of the GI tract.

1,1-Dichloro-1-fluoroethane	LD50/Rats >	5gm/kg
Ethyl Alcohol	LDLo/Human	1400mg/kg
	Sleep, headache,nausea, vomiting	
Methylcyclohexane	LDLo/Mouse	2,250mg/kg
	No toxic effect noted.	
Nitroethane	LD50/Rats	1,100 mg/kg
	General anesthetic,tremors, excitement	

Skin: Product is a skin irritant.

1,1-Dichloro-1-fluoroethane	LD50/Rats >	2 m/kg
Ethyl Alcohol	LDLo/Rabbits	20 mg/kg

Exposure Limits:

Material:	*TWA (ACGIH):*	*STEL (ACGIH):*	*PEL (OSHA):*
1,1-Dichloro-1-fluoroethane	NA	100 ppm	NA
Denatured Alcohol	1,000 ppm	NA	1,000 ppm
Methylcyclohexane	400 ppm	NA	400 ppm
Nitroethane	100 ppm	NA	100 ppm
Chlorodifluoromethane	1,000 ppm	NA	1,000 ppm
Carbon Dioxide	5,000 ppm	30,000 ppm	10,000 ppm

Signs and Symptoms of Over-Exposure:
Inhalation: Inhalation of large concentrations of product vapor may result in dizziness, headache, loss of coordination and loss of consciousness. May also cause heart irregularities, with temporary alteration of the heart's electrical activity, irregular pulse, palpatations or inadequate circulation, in some individuals. (See note on medical conditions aggravated by use).
Eye: Direct contact with liquid may cause mild discomfort.
Ingestion: Ingestion of this product will result in irritation of the lining of the GI tract and lead to symptoms of CNS depression such as headache, drowsiness, dizziness, loss of coordination.
Skin: Prolonged or repeated contact with liquid product may result in defatting of the skin and lead to reddening, drying, burning and general irritation.
Medical Conditions Possibly Aggravated by Exposure:
Persons with pre-existing conditions of the skin and cardiac system may be more susceptible to the toxic effects of this product. *(See Inhalation section)*
First Aid:
Inhalation: Remove victim to fresh air. If not breathing or if breathing is difficult, administer artificial respiration or oxygen. Seek medical attention.
Eye: Immediately flush with water for at least 15 minutes. If irritation occurs or persists, seek medical attention.
Ingestion: DO NOT induce vomiting as the hazard of aspirating the material into the lungs is a greater hazard than allowing it to pass through the intestinal tract.Seek medical attention.
Skin: Flush with water.After flushing, wash the area with warm water and detergent. If irritation occurs or persists, seek medical attention. Launder contaminated clothing before reuse.
Carcinogenicity:
Components are not listed as carcinogens by IARC or NTP.
OSHA regulated - yes; OSHA air contaminant.
Toxic - yes; low toxicity. *(See Inhalation and Ingestion sections)*

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CONTROL/PPE MEASURES

	Control/ PPE ID	Control/PPE
Respiratory Protection: No	11	Good ventilation/H.C. Resp.
Ventilation: No	5	As needed to comply with TLV
Protective Gloves: Yes	4	Impermeable
Eye Protection: Yes	2	Safety glasses,goggles,shield
Other Protection: Yes	2	Eye bath & Protective clothes

Work/Hygenic Practices: Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

NFPA Codes: Health:2, Flammability: 2, Reactivity: 0.

DISPOSAL INFORMATION

Spill, Leak or Release: Ventilate area. Remove open flames or other sources of ignition. Collect spilled product with absorbent material and place in closed steel drums for proper disposal.

SARA 311 Quantity: NA
Units of Measure: Lb.

Waste Disposal: Comply with all Federal, State and Local regulations. Reclaim by distillation or arrange for disposal with a licensed TSD facility.

OTHER INFORMATION

Storage Conditions: Product vapor is flammable. Use only in adequately ventilated areas. Do not store near sources of heat, in direct sunlight, or where temperatures exceed 120°F. Do not store near acids or other oxidizing materials. Wash hands after handling and before eating and smoking. Rotate stock.

SECTION 313 SUPPLIER INFORMATION

Other Precautions: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

CAS#:	CHEMICAL NAME:	PERCENT BY WEIGHT:
75-45-6	Chlorodifluoromethane	10 - 12%

This information should be included in all MSDSs copied and distributed for this material.

Contains chemicals listed on the TSCA Inventory: Yes

Date Revised: 6/92

Person Responsible: M. Watkins, Quality Control Manager

ENVIRONMENTAL IMPACT DATA

ENVIRONMENTAL IMPACT DATA			
CFC	0.0%	VOC	5.0%
HCFC	92.5%	HFC	0.0%
C1 Solv.	0.0%	ODP	0.10
For more information call: 1-800-645-5244			

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Kennesaw, GA 30144
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