

**SECTION 1: COMPANY IDENTIFICATION AND CHEMICAL PRODUCT**

**Company Address:**

**TELECHEM INTERNATIONAL, INC.**

**524 E. WEDDELL**

**Sunnyvale, CA 94089**

**1-408-744-1331**

**www.arrayit.com**

**EMERGENCY TELEPHONE NUMBER: 1-800-424-9300 (NORTH AMERICA)**

**CREATION DATE: July 06, 2002**

**Product Identification: CLEANING COMPOUND, SOLVENT**

**Cleaning Compound for Electrical Contacts, Low ODP, IAW MIL-PRF-29608 Type 1, Class C**

**Product Code: 29608 (PRF) Ty 1, Class C**

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS#</b>	<b>Wt. %</b>
Dichlorofluoroethane	1717-00-6	45.0-50.0
Perfluorocarbons	86508-42-1	45.0-50.0
Carbon Dioxide	124-38-9	1.0-6.0

**SECTION 3: HAZARD IDENTIFICATION**

**Emergency Overview:** Clear, colorless liquid with faint ethereal odor. This product is nonflammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce drowsiness and unconsciousness.

**Potential Health Effects:**

**Eyes:** Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

**Skin:** Prolonged contact can cause skin irritation.

**Ingestion:** May be harmful if swallowed. Irritating to mouth, throat and stomach.

**Inhalation:** Can be harmful if inhaled. High concentrations of vapors in immediate area can displace oxygen and can cause dizziness.

**SECTION 4: FIRST AID MEASURES**

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

**Skin:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting. If conscious, give 2 glasses of water. Never give anything by mouth to an unconscious person. Keep head below knees to minimize chance of aspirating material into the lungs. Get medical attention immediately.

**Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**Flash Point:** None (TCC)

**Extinguishing Media:** Use water spray or fog, CO2, dry chemical or water stream when fighting fires involving this material.

**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Spills:** Shut off leak if possible and safe to do so. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

**SECTION 7: HANDLING AND STORAGE**

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks and flame. Keep container closed when not in use. Do not store in direct sunlight.

**KEEP OUT OF REACH OF CHILDREN.**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines:**

<b>CHEMICAL NAME</b>	<b>ACGIH TWA</b>	<b>OSHA PEL</b>	<b>ACGIH STEL</b>
Dichlorofluoroethane	NA	NA	500 ppm (Atofina)
Perfluorocarbons	NA	NA	NA

NA = None Established

**NFPA and HMIS Codes:**

	<b>NFPA</b>	<b>HMIS</b>
Health	1	1
Flammability	0	0
Reactivity	0	0
Personal Protection	-	B

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. This material does not have established exposure limits. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves when handling this material.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<u>Percent Volatile:</u> 100%	<u>Solubility in Water:</u> Negligible
<u>Odor:</u> Ethereal Odor	<u>Specific Gravity:</u> 1.57 (Water =1)
<u>pH:</u> NA	<u>Evaporation Rate:</u> >1 (0.172 grams/minute) (Butyl acetate=1)
<u>Vapor Pressure:</u> 374 mmHg @ 70°F (Liquid only)	<u>Viscosity:</u> NA
<u>Physical State:</u> Clear, colorless liquid	
<u>Boiling Point:</u> 90°F	

**SECTION 10: STABILITY AND REACTIVITY**

Stability: This product is stable.  
Incompatibility: Do not mix with powdered alkali and alkaline earth metals or strong oxidizing agents.  
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons as well as hydrochloric and hydrofluoric acid vapor.  
Hazardous Polymerization: Will not occur  
Conditions to Avoid: Finely divided active metals, alkali and alkaline earth metals

**SECTION 11: TOXICOLOGICAL INFORMATION**

<u>Inhalation:</u>	<u>Ingestion:</u>
Dichlorofluoroethane LC50/rats 61,647 ppm/6hr	Dichlorofluoroethane LD50/rat >5,000 mg/kg
Perfluorocarbons* Practically non-toxic	Perfluorocarbons* Practically non-toxic

Skin  
Dichlorofluoroethane LD50/rats >2,000 mg/kg  
Perfluorocarbons\* non-irritating

\*Information provided by manufacturer.  
Cancer Information: No ingredients listed as human carcinogens by NTP or IARC  
Reproductive effects: none      Teratogenic effects: none      Mutagenic effects: none

**SECTION 12: ECOLOGICAL INFORMATION**

<b>Data</b>	<b>Environmental Impact</b>		
Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.	(percent	by	
<b>REPORTING</b>	CFC	0.0%	VOC 0.0%
US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is:	HCFC	47.0%	HFC 0.0%
<b>1-800-424-8802</b>	Cl. Solv.	0.0%	ODP 0.05

**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

**SECTION 14: TRANSPORTATION INFORMATION**

Proper Shipping Name	UN Number	Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr.	Max. Quantity
<u>Air:</u> Aerosols non-flammable	UN 1950	2.2	NA	NA	Non-flammable Gas	203 Y203	75 k.g.; 150k.g. 30 kg
<u>Ground:</u> Consumer Commodity		NA	ORM-D	NA NA	ORM-D	Pkg. Auth.	173.306

**SECTION 15: REGULATORY INFORMATION**

**SECTION 313 SUPPLIER NOTIFICATION**

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).

Chemical Name	CAS#	Wt% Range
Dichlorofluoroethane	1717-00-6	45.0-50.0

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class A; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**SECTION 16: OTHER INFORMATION**

Product is a Level 1 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

REFERENCES: 29 CFR 1910.1200      40 CFR 300-700      ANSI Z400.1-1998

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.