

GC Thoreen Inc.
1801 Morgan Street
Rockford, IL 61105

MATERIAL SAFETY DATA SHEET
Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: GC ELECTRONICS ES FLEX SOLV

Product Code: GC 19-270

Company Address: GC Thoreen Inc.
1801 Morgan Street
Rockford, IL 61105

24 Hour Emergency Telephone: CHEMTREC (800)424-9300
Phone Number for Information: (815) 968-9661

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

Hazardous Component	CAS#	OSHA PEL (TWA)	ACCH TLY (TWA)	Other Limits Recommended	Percent by Weight
*1,1-Dichloro-1,1-difluoroethane	1117-00-6	N/A	N/A	500 ppm (AHA)	85 %
Perchloroethylene	1271-83-4	25 ppm	25 ppm	100 ppm STEL	6 %
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm	500 ppm STEL	10-20 %
Carbon Dioxide	124-38-9	5000 ppm	5000 ppm	30,000 ppm (STEL)	1 - 5 %

*This chemical is subject to the reporting requirements of SARA Section 313.

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Colorless liquid with mild ethereal odor. Contains under pressure. Prolonged exposure to sunlight or heat may cause burning of can. Avoid prolonged breathing of vapor or contact with skin and eyes.

Personal Health Effects:

Eye: Liquid can irritate eyes and may cause conjunctivitis.
Skin: Prolonged or repeated contact can cause irritation and drying of skin.
Inhalation: Overexposure can cause dizziness, loss of concentration and irritation of respiratory tract.
Irritants: Similar as for inhalation.

Cardiogenicity: IARC - Yes NTP - Yes OSHA - No
Chronic: Perchloroethylene has been shown to cause cancer in laboratory animals. Epidemiological studies linking perchloroethylene exposure to cancer in humans have been inconclusive. Prolonged overexposure may contribute to liver and kidney damage.

SECTION 4: FIRST AID MEASURES

If Inhaled: Move to fresh air. Give oxygen to exposed person, if necessary.
If Swallowed: Do NOT induce vomiting unless instructed by a physician. Contact physician, hospital or poison control center.
If In Eyes: Flush thoroughly with water for at least 15 minutes.
If On Skin: Wash affected area with soap and water.
Note to Physician: Do not give stimulants. Epinephrine or epinephrine may adversely affect the heart with fatal results.

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SECTION 5: FIRE FIGHTING MEASURES

Flash Point (°F) & Method: N/A Flammable Limits - Lower: N/A Upper: N/A
Extinguishing Media: Carbon dioxide, dry chemical, water spray

Fire & Explosion Hazards: Aerial cans are under pressure - exposure to temperatures above 120°F can cause bursting or "robbing" of cans. Firefighters should use self-contained respiratory protection in buildings or confined spaces.

Hazardous Combustion Products: Hydrogen chloride, hydrogen fluoride, carbonyl halides, carbon monoxide, carbon dioxide

Flammability Classification: (NFPA) Level 1 Aerial

SECTION 6: ACCIDENTAL RELEASE MEASURES

In case of spill or accidental release: Use absorbent material to soak up liquid. Place used absorbents into closed DOT-approved containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Handling and Storage: Shake well before using. Keep away from heat, sparks and open flames. Prolonged exposure to direct sunlight or storage above 120°F may cause cans to burst. Do not puncture or incinerate cans.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection: Not required when used as directed.
Ventilation: General ventilation should be provided.

Protective Gloves: PVA or Neoprene gloves may be used.

Eye Protection: Safety glasses or goggles are recommended.

Other Protective Clothing or Equipment: Not required when used as directed.

Worst & Hygienic Practices: Wash hands thoroughly after use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Colorless liquid with mild ethereal odor

Boiling Point (°F): 89.6

Vapor Pressure @ 70°F: 90 psi

Vapor Density (Air=1): > 1

Solubility in Water: Negligible

% Reportable VOC Content: 6 %

Specific Gravity (Rt. Q=1): 1.2

Melting Point (°F): N/A

Evaporation Rate (Bare Acetate =1): > 1

pH: N/A

SECTION 10: STABILITY AND REACTIVITY

Stability: (Conditions to Avoid) Stable. Avoid open flames and high temperatures.

Incompatibility: (Specific Materials to Avoid) Strong oxidizers, acids & alkalis, reactive metals

Hazardous Decomposition Products: Hydrogen chloride, hydrogen fluoride, carbonyl halides, carbon monoxide, carbon dioxide
Hazardous Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Information is based on available data on product components. Product as a whole has not been evaluated.

Oral: LD₅₀ (guinea) 5000 mg/kg for Pentaerythritol

Dermal: N/A

Inhalation: LC₅₀ (rat) 4000 ppm for Pentaerythritol

Eye Irritation: Moderate

Skin Irritation: Mild, reversible

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SECTION 12: ECOLOGICAL INFORMATION

Pentaerythritol is a non-pollutant.

LC₅₀ (fish) 100 - 10 ppm 96 hr TL₅₀

SECTION 13: DISPOSAL CONSIDERATIONS

Always use up product according to label directions before disposal.

Other empty containers for recycling where facilities exist. If recycling is not available, wrap empty container in newspaper and discard in trash. DO NOT PUNCTURE OR INCINERATE CONTAINER.

SECTION 14: TRANSPORT INFORMATION

Shipping Name	Dominic	International
Hazard Class	ORMAD	2.2
UN number:	none	UN1950
Packing Group:	none	none
Hazard Label:	ORMAD	class 2 - NONFLAMMABLE

SECTION 15: REGULATORY INFORMATION

OSHA: This product is considered hazardous based on the criteria listed in the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA: All chemical components are listed in the TSCA inventory.

NJ Right to Know: In addition to the hazardous components listed in section 2, this product contains the following components in a quantity sufficient to require identification:
No other components.

SECTION 16: OTHER INFORMATION

HMS Ratings: (0-minimal, 1=slight, 2=moderate, 3=serious, 4=severe)
Health - 2 Flammability - 1 Reactivity - 0

Last Revision Date: 10/15/98

Supersedes Date: