

# MATERIAL SAFETY DATA SHEET

Finished Product



**Date-Issued:** 01/20/2003  
**MSDS Ref. No:** RX200-20  
**Date-Revised:** 01/20/2003  
**Revision No:** New MSDS

## ECG Electronics Degreaser

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ECG Electronics Degreaser  
**PRODUCT DESCRIPTION:** Cleaner/Degreaser  
**PRODUCT CODE:** RX200-20  
**CHEMICAL FAMILY:** HCFC / Alcohol Blend

#### MANUFACTURER

NTE Electronics, Inc.  
44 Farrand St.  
Bloomfield, NJ 07003

**Phone: 973-748-5089**

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (U.S.):** (800) 424-9300

**CANUTEC:** (613) 996-6666

**Emergency Phone:** 1-888-748-1777 8:00 am - 5:00 pm CST

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>	<u>EINECS#</u>
1,1-dichloro-1-fluoroethane	80 - 90	1717-00-6	200-891-8
Methanol	0.8 - 5	67-56-1	200-659-6
Carbon dioxide	2 - 4	124-38-9	
Ethanol	5 - 15	64-17-5	200-578-6

#### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Harmful - "Xn"



EEC Environment - "N"

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### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE:** Clear, Colorless, Volatile Liquid

**IMMEDIATE CONCERNS:** Warning! High concentrations of vapor can reduce oxygen available for breathing. Harmful if inhaled. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Liquid contact can cause irritation, which may be severe.

**SKIN:** Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

**SKIN ABSORPTION:** Harmful if absorbed through skin.

**INGESTION:** Ingestion of large amounts may produce abdominal pain, nausea and vomiting. Swallowing small amounts is not likely to produce harmful effects.

**INHALATION:** High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and possibly death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Can cause severe eye irritation.

**INGESTION:** Poison - may be fatal if swallowed.

**ACUTE TOXICITY:** Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result.

**MEDICAL CONDITIONS AGGRAVATED:** Inhalation of high concentrations can cause an increase in the sensitivity of the heart to adrenaline, which could result in irregular heartbeat and reduced heart function. Workers with heart disease or compromised heart function should have limited exposure to material.

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### 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**INGESTION:** Aspiration hazard. If swallowed, vomiting may occur spontaneously, but do not induce. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Call a physician immediately.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

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## 5. FIRE FIGHTING MEASURES

**FLAMMABLE LIMITS:** 7.4 to 15.5

**EXTINGUISHING MEDIA:** As appropriate for combustibles in area.

**EXPLOSION HAZARDS:** Vapors, when present in the flammable range (listed above), especially in a confined or poorly ventilated space, can be ignited with a flame or high intensity source of heat.

**FIRE FIGHTING PROCEDURES:** Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

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

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## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Avoid runoff into storm sewers and ditches which lead to waterways.

**LARGE SPILL:** -Implement cleanup procedures.

-If in public area, keep public away and advise authorities.

-Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.

**RELEASE NOTES:** Spills and releases may have to be reported to Federal and/or local authorities.

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Use only in a well ventilated area.

**STORAGE:** Store in a cool place in original container and protect from sunlight.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE GUIDELINES:**

**OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)**

	<u>EXPOSURE LIMITS</u>					
	<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>	<u>ppm</u>	<u>mg/m<sup>3</sup></u>
1,1-dichloro-1-fluoroethane						
	<b>TWA</b>	NONE		500		500

Methanol	<b>TWA</b>	S 200 <sup>[1]</sup>	260	S 200	262	NL	NL
	<b>STEL</b>	250	310	250	328	NL	NL
Ethanol	<b>TWA</b>	1000	1900	1000	1880	NL	NL
	<b>STEL</b>	NL	NL	NL	NL	NL	NL

**OSHA TABLE COMMENTS:**

1. S = Skin

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

**SKIN:** The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection.

- Buna
- Butyl
- Natural Latex
- Neoprene
- Solvex
- Viton

**RESPIRATORY:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**COMMENTS:** Suggested gloves: MYLAR coated Durafab, PVA or neoprene.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Liquid

**ODOR:** Faint ethereal odor

**APPEARANCE:** Clear, Colorless liquid

**pH:** Not Applicable

**PERCENT VOLATILE:** 100

**BOILING POINT:** 30°C (86°F)

**FREEZING POINT:** Not Determined

**SOLUBILITY IN WATER:** <5

**EVAPORATION RATE:** >1 (n-Butyl Acetate=1)

**SPECIFIC GRAVITY:** 1.21 @ 25°C/25°C

**(VOC):** 100 g/L

**(VOC) NOTES:** Non-exempt

**10. STABILITY AND REACTIVITY**

**CONDITIONS TO AVOID:** Heat, flames, ignition sources, and incompatibles.

**HAZARDOUS DECOMPOSITION PRODUCTS:** May form hydrochloric and hydrofluoric acids - possibly carbonyl halides, when exposed to high temperatures.

**INCOMPATIBLE MATERIALS:** Strong acids and alkalis, reactive metals and strong oxidizing agents.

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## 11. TOXICOLOGICAL INFORMATION

**SENSITIZATION:** Acute Oral Toxicity: Cardiac Sensitization Threshold = 10,000ppm

### SUBCHRONIC:

Fischer 344 Rats - slightly toxic - 20,000 ppm

Inhalation: 20,000 ppm

**REPRODUCTIVE EFFECTS:** Reproduction (2-generation rat): Reduced fertility and reduced bodyweight - 20,000 ppm / NOEL = 8,000 ppm.

**TERATOGENIC EFFECTS:** Teratology (rat) - maternal and fetal tox. - 20,000 ppm / NOEL = 8,000 ppm  
Teratology (rabbit) - Slight bodyweight loss - 4,200 ppm / NOEL= 1,400 ppm

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** Biodegradability - Minimal

**ECOTOXICOLOGICAL INFORMATION:** Daphnia and Fish - 31.2 mg/L - 125 mg/L, Moderately toxic.  
Algae - Not toxic up to 44 mg/L

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Federal, State, and Local laws governing disposal of materials can differ. Ensure compliance with proper authorities before disposal.

**RCRA/EPA WASTE INFORMATION:** Spent (used) Dichlorofluoroethane used as a solvent is a hazardous waste: F002

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## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ORM-D

### AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ID8000

### VESSEL (IMO/IMDG)

**PROPER SHIPPING NAME:** AEROSOLS IN LIMITED QUANTITIES OF CLASS 2

**UN/NA NUMBER:** 1950

**PACKING GROUP:** N/A

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## 15. REGULATORY INFORMATION

### UNITED STATES

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** IMMEDIATE / DELAYED

**313 REPORTABLE INGREDIENTS:** Dichlorofluoroethane

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA REGULATORY:** This product is listed on the TSCA Inventory.

### EUROPEAN COMMUNITY

**EEC LABEL SYMBOL AND CLASSIFICATION**



EEC Harmful - "Xn"



EEC Environment - "N"

**GENERAL COMMENTS:** Dichlorofluoroethane is subject to U.S. Environmental Agency Clean Air Act Regulations Sectins 610,611, and 612 - Significant New Alternatives Program (SNAP) policy at 40 CFR Part 82. Section 611 requires the following label text on all shipments of this product:

**WARNING: CONTAINS DICHLOROFLUOROETHANE (HCFC-141b), A SUBSTANCE WHICH HARMS PUBLIC HEALTH AND ENVIRONMENT BY DESTROYING OZONE IN THE UPPER ATMOSPHERE.**

Refer to sections 610 and 612 for list of acceptable and unacceptable uses for this product.

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## 16. OTHER INFORMATION

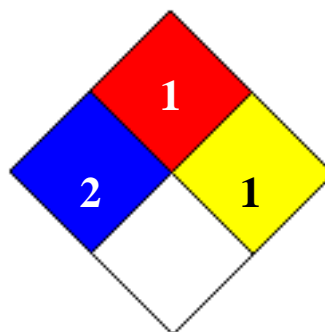
**APPROVED BY:** Pierce A. Pillon    **TITLE:** Chemist

**REVISION SUMMARY** New MSDS

### HMIS RATING

<b>HEALTH:</b>		<b>1</b>
<b>FLAMMABILITY:</b>		<b>1</b>
<b>PHYSICAL HAZARD:</b>		<b>1</b>
<b>PERSONAL PROTECTION:</b>		

### NFPA CODES



**DATA SOURCES:** Code of Federal Regulations (CFR)  
The Sigma-Aldrich Library of Regulatory and Safety Data  
OSHA Hazard Communication Standard (29CFR1910.1200)  
Various Federal, State and Local Regulations

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