

**MATERIAL SAFETY DATA SHEET****Finished Product**

**Date-Issued:** 01/20/2003  
**MSDS Ref. No:** RX500-6/12  
**Date-Revised:** 01/20/2003  
**Revision No:** New MSDS

**ECG Cleaner/Lubricant****1. PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** ECG Cleaner/Lubricant  
**PRODUCT DESCRIPTION:** Cleaner/Lubricant  
**PRODUCT CODE:** RX500-6, RX500-12

**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	85 - 95	1717-00-6	200-891-8
Carbon dioxide	3 - 5	124-38-9	
Ethanol	5 - 10	64-17-5	200-578-6
Siloxanes and Silicones, di-Me	<1	63148-62-9	xxx-xxx-x
WHITE MINERAL OIL	1 - 5	8042-47-5	

**EEC LABEL SYMBOL AND CLASSIFICATION**

EEC Irritant - "Xi"



EEC Environment - "N"

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### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**IMMEDIATE CONCERNS:** Poison, May be fatal or cause blindness if swallowed.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Irritating, and may injure eye tissue if not removed promptly.

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

**INGESTION:** Harmful if swallowed --- contains small amounts of methanol.

**INHALATION:** Harmful if inhaled. Prolonged or repeated inhalation may cause lung damage and/or central nervous system disturbances.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Symptoms of overexposure include: stinging, tearing, redness and pain.

**SKIN:** Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite ("cold" burn).

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

**INHALATION:** High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

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

**CHRONIC:** Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

**CARCINOGENICITY:** NOT listed

#### REPRODUCTIVE TOXICITY

**REPRODUCTIVE EFFECTS:** Not Established

**TERATOGENIC EFFECTS:** Not considered a developmental toxicant.

**ROUTES OF ENTRY:** Inhalation is major route of entry.

**CANCER STATEMENT:** NOT listed

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### 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists.

**INGESTION:** If swallowed, do not induce vomiting. If conscious and alert, give two glasses of water. Seek medical attention.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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## 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** None

**FLAMMABLE LIMITS:** 7.4 to 15.5

**AUTOIGNITION TEMPERATURE:** 550°C (1022°F)

**GENERAL HAZARD:** Aerosol cans may erupt with force at temperatures above 120F.

**EXTINGUISHING MEDIA:** Water, foam, dry chemical, carbon dioxide.

**HAZARDOUS COMBUSTION PRODUCTS:** Smoke, fumes and oxides of carbon.

**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.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition products are hazardous. This compound can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids - possibly carbonyl halides.

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## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

**GENERAL PROCEDURES:** Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth, gravel, etc. as necessary and place in closed containers for disposal.

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Wash thoroughly after handling. Use only in a well ventilated area. Follow all

MSDS/label precautions even after container is emptied because they may retain product residues. Store in a cool dry place.

**HANDLING:** Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

**STORAGE:** Store in a cool place in original container and protect from sunlight. Keep away from heat and flame.

**STORAGE PRESSURE:** Store at local atmospheric pressure.

**STORAGE TEMPERATURE:** Contents under pressure. Do not expose to heat or store above (120) F (49) C.

## 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	
Ethanol	<b>TWA</b>	1000	1900	1000	1880	NL	NL
	<b>STEL</b>	NL	NL	NL	NL	NL	NL
WHITE MINERAL OIL	<b>TWA</b>	5		5			
	<b>STEL</b>	5		5			

**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:** NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if

there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

**WORK HYGIENIC PRACTICES:** Wash hands before eating and wash before reuse.

**OTHER USE PRECAUTIONS:** Emergency shower and eyewash facility should be in close proximity.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Faint ethereal odor

**APPEARANCE:** Clear, mobile liquid.

**COLOR:** Colorless

**pH:** Not Applicable

**PERCENT VOLATILE:** 100

**VAPOR DENSITY:** >1 (Air=1)

**BOILING POINT:** Not Available

**FREEZING POINT:** Not Available

**MELTING POINT:** Not Applicable

**SOLUBILITY IN WATER:** WT %

**DENSITY:** 1.16

**(VOC):** 93.3 g/L (non-exempt VOC)

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## 10. STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** NO

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

**STABILITY:** Stable under normal conditions.

**POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrochloric acid, hydrofluoric acid, chlorine, fluorine, phosgene, carbon dioxide, carbon monoxide.

**INCOMPATIBLE MATERIALS:** Metals. Acidic conditions. Oxidizing materials.

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## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**DERMAL LD<sub>50</sub>:** >2000 mg/kg (rat)

**ORAL LD<sub>50</sub>:** >5000 mg/kg (rat)

**INHALATION LC<sub>50</sub>:** 20000 ppm, 10-hour

Fumes/liquid -- Irritant

**EYE EFFECTS:** Mixture is a moderate eye irritant.

**SKIN EFFECTS:** Causes irritation to skin.

**CARCINOGENICITY:**

**CARCINOGENICITY COMMENTS:** Not listed as a carcinogen.

**MUTAGENICITY:** Collective data indicate non-mutagenic.

**NEUROTOXICITY:** Exposure to high concentrations may effect the nervous system.

**TERATOGENIC EFFECTS:** Information for Methanol: In an inhalation developmental toxicity study, rats were exposed 6hrs./day to 5000 - 20000 ppm vapors. A significant teratogenic response was seen at 20000 ppm. Fetotoxicity was noted at 10000 ppm, but not at 5000 ppm.

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** There is limited information available on the environmental fate and effects of this material. The primary environmental concern for release is the impact on aquatic and terrestrial species. Due care should be taken to avoid the accidental release of this material into the environment.

**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.

**GENERAL COMMENTS:** Dispose of in a manner consistent with federal, state, and local regulations.

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## 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)**

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

**UN/NA NUMBER:** NA

**PACKING GROUP:** NA

**AIR (ICAO/IATA)**

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ID8000

**PRIMARY HAZARD CLASS/DIVISION:** 9

**UN/NA NUMBER:** ID8000

**PACKING GROUP:** NA

**IATA NOTE:** Domestic shipments only. When shipping International contact TechSpray shipping department.

**VESSEL (IMO/IMDG)**

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

**PRIMARY HAZARD CLASS/DIVISION:** 2.2

**UN/NA NUMBER:** UN1950

**PACKING GROUP:** NA

**IMDG NOTE:** Page 2102

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## 15. REGULATORY INFORMATION

### UNITED STATES

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

##### 311/312 HAZARD CATEGORIES:

**PRESSURE GENERATING:** YES

**313 REPORTABLE INGREDIENTS:** Dichlorofluoroethane Methanol

##### 302/304 EMERGENCY PLANNING

**EMERGENCY PLAN:** NOT listed

#### CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** Methanol (#67-56-1)

**CERCLA RQ:** 5000 lbs

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA STATUS:** All components of this product are either listed or exempt from listing in the TSCA inventory.

**RCRA STATUS:** U154 D001

**OSHA HAZARD COMM. RULE:** Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

##### 29 CFR 1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS

**CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

### EUROPEAN COMMUNITY

#### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Irritant - "Xi"



EEC Environment - "N"

**CALIFORNIA PROPOSITION 65:** This product does not contain any chemicals known to the State of California to cause cancer.

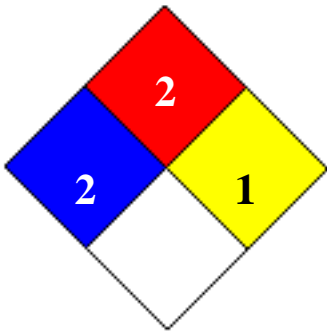
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## 16. OTHER INFORMATION

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

**REVISION SUMMARY** New MSDS

### 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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