

# MATERIAL SAFETY DATA SHEET

Finished Product



**Date-Issued:** 01/20/2003  
**MSDS Ref. No:** RX1900-4  
**Date-Revised:** 01/20/2003  
**Revision No:** New MSDS

## ECG Eco Line Flux Remover

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ECG Eco Line Flux Remover  
**PRODUCT DESCRIPTION:** General Purpose Contact Cleaner  
**PRODUCT CODE:** RX1900-4

#### 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>
2-Propanol	45 - 55	67-63-0	200-661-0
Ethanol	8 - 15	64-17-5	200-578-6
Carbon dioxide	1 - 4	124-38-9	
n-Propyl acetate	4 - 8	109-60-4	2036861
Acetone	10 - 15	67-64-1	200-662-2
Tetrahydrofuran	15 - 25	109-99-9	203-726-8

#### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Toxic - "T"



EEC Highly flammable - "F"

---

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE:** Transparent, colorless liquid.

**IMMEDIATE CONCERNS:** Extremely flammable liquid and vapor.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Substance causes substantial eye irritation.

**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:** Skin absorption can occur.

**INGESTION:** Substance may be harmful if swallowed.

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

**SKIN:** Prolonged exposure causes redness, pain, drying and cracking of the skin.

**INGESTION:** For large amounts; abdominal pain, nausea and vomiting.

**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.

**TARGET ORGAN STATEMENT:** Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.

---

### 4. FIRST AID MEASURES

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

**SKIN:** Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

**INGESTION:** If swallowed, gently wipe or rinse the inside of the mouth with water. DO NOT induce vomiting. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Immediately contact a poison control center, emergency room or physician as further treatment may be necessary.

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

---

## 5. FIRE FIGHTING MEASURES

**FLAMMABLE LIMITS:** 2.0 to 12.0

**GENERAL HAZARD:** Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point.

**EXTINGUISHING MEDIA:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

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

**EXPLOSION HAZARDS:** Vapors may form explosive mixture with air.

**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:** Toxic oxides of carbon and corrosive vapors of hydrogen chloride.

---

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Contain spill with dike to prevent entry into sewers.

**LARGE SPILL:** If this material is released into a work area, evacuate the area immediately.

**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.

**SPECIAL PROTECTIVE EQUIPMENT:** Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area. See Section 8 for details.

**COMMENTS:** Remove all sources of ignition. Use spark-proof tools.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Wash thoroughly after handling. Use only in a well ventilated area. Store in a cool dry place.

**HANDLING:** Ground and bond containers when transferring material.

**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>
2-Propanol	TWA	400	980	400	983	NL <sup>[1]</sup>	NL
	STEL	500	1225	500	1230	NL	NL
Ethanol	TWA	1000	1900	1000	1880	NL	NL
	STEL	NL	NL	NL	NL	NL	NL
n-Propyl acetate	TWA		200		200		
	STEL		250		250		
Acetone	TWA	750	1800	750	1780	NL	NL
	STEL	1000	2400	1000	2380	NL	NL
Tetrahydrofuran	TWA	200	250	200	590	NL	NL
	STEL	590	735	250	737	NL	NL

### OSHA TABLE COMMENTS:

1. NL = Not Listed

**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:** Wear safety glasses with side shields (or goggles) and a face shield.

**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.

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

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

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**ODOR:** Faint ethereal odor

**APPEARANCE:** Clear, Colorless liquid

**PERCENT VOLATILE:** 100 at 20°C (68°F)

**VAPOR DENSITY:** 2.1 (Air=1)

**BOILING POINT:** to 80°C (176°F)

**FREEZING POINT:** to -88°C (-127°F)

**SOLUBILITY IN WATER:** Negligible

---

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** Stable. However, may decompose if heated.

**STABILITY:** Stable.

**POLYMERIZATION:** Will not occur.

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

**INCOMPATIBLE MATERIALS:** Oxidizing agents, alkalies and bases.

---

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**EYES:** Moderately to severely irritating

**DERMAL LD<sub>50</sub>:** Mildly to moderately irritating.

**ORAL LD<sub>50</sub>:** Slight to very low toxicity.

**INHALATION LC<sub>50</sub>:** Slight to very low toxicity.

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

**SKIN EFFECTS:** Based on human exposure reports, prolonged and repeated skin contact with Methanol has

produced toxic effects including vision effects and death.

**TERATOGENIC EFFECTS:** Test results indicate this compound/mixture is not teratogenic.

---

## 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.

---

## 13. DISPOSAL CONSIDERATIONS

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

**FOR LARGE SPILLS:** Contaminated sawdust, vermiculite, or porous surfaces must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted hazardous waste management facility.

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

---

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

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

**UN/NA NUMBER:** N/A

**PACKING GROUP:** N/A

### AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ID8000

**PRIMARY HAZARD CLASS/DIVISION:** 9

**UN/NA NUMBER:** ID8000

**PACKING GROUP:** N/A

**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:** 2.1

**UN/NA NUMBER:** 1950

**PACKING GROUP:** II

**IMDG NOTE:** Page 2102

---

## 15. REGULATORY INFORMATION

### UNITED STATES

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

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

**313 REPORTABLE INGREDIENTS:** Methanol (3.55%)

**TITLE III NOTES:** Not listed as an Extremely Hazardous Substance.

**302/304 EMERGENCY PLANNING**

**EMERGENCY PLAN:** Methanol (#67-56-1)

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

**CERCLA REGULATORY:** Acetone (67-64-1)

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

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

**RCRA STATUS:** U079

## CANADA

**WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM):** This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**WHMIS CLASS:** Class D2B - Toxic Materials

**CANADA INGREDIENT DISCLOSURE LIST:** CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components of this product are listed on the Canadian DSL.

## EUROPEAN COMMUNITY

### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Toxic - "T"



EEC Highly flammable - "F"

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

### STATES WITH SPECIAL REQUIREMENTS

**Tetrahydrofuran** Pennsylvania:  
Massachusetts:  
New Jersey:

## 16. OTHER INFORMATION

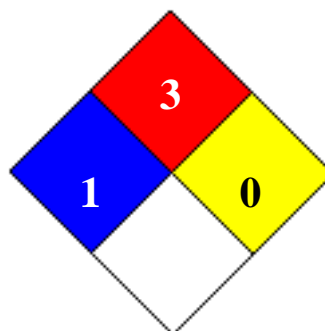
**APPROVED BY:** Pierce A. Pillon    **TITLE:** Chemist

**REVISION SUMMARY** New MSDS

### HMIS RATING

<b>HEALTH:</b>	1
<b>FLAMMABILITY:</b>	3
<b>PHYSICAL HAZARD:</b>	0
<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

**MANUFACTURER DISCLAIMER:** To the best of our knowledge, the information contained herein is accurate. However, neither Stratus, or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.