

# MATERIAL SAFETY DATA SHEET

**Finished Product**

**Date-Issued:** 01/20/2003  
**MSDS Ref. No:** RX3200-12  
**Date-Revised:** 01/20/2003  
**Revision No:** New MSDS

**ECG Electronics Wash**

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ECG Electronics Wash  
**PRODUCT DESCRIPTION:** General Purpose Contact Cleaner  
**PRODUCT CODE:** RX3200-12

### 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>
2-Propanol	8 - 12	67-63-0	200-661-0
Ethanol	18 - 25	64-17-5	200-578-6
2-Propanol,2-Methyl	<1	75-65-0	200-889-7
Carbon dioxide	1 - 4	124-38-9	
Hexane	59 - 71	110-54-3	203-777-6
n-Propyl acetate		109-60-4	2036861

### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Highly flammable - "F"



EEC Harmful - "Xn"

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### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

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

**IMMEDIATE CONCERNS:** Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract. Causes skin irritation. Harmful if swallowed.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Avoid contact with eyes; may cause redness, irritation and conjunctivitis.

**SKIN:** Prolonged or repeated skin contact may cause irritation.

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

**INHALATION:** Prolonged or excessive inhalation may cause respiratory tract irritation.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Liquid splashed in the eye may cause redness, irritation and conjunctivitis.

**SKIN:** Prolonged or exposure may cause skin irritation.

**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.

#### REPRODUCTIVE TOXICITY

**TERATOGENIC EFFECTS:** Contains Methanol which has been established as a teratogen by inhalation. See Sec.11 for details.

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

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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:** 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:** 2.0 to 12.0

**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.

**FIRE FIGHTING PROCEDURES:** Evacuate area and fight fire from a safe distance.

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

**LARGE SPILL:** Clean up spills immediately, observing precautions in Protective Equipment section.

**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.

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Wash thoroughly after handling. Use only in a well ventilated area. 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 away from heat.

**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	<b>TWA</b>	400	980	400	983	NL <sup>[1]</sup>	NL
	<b>STEL</b>	500	1225	500	1230	NL	NL
Ethanol	<b>TWA</b>	1000	1900	1000	1880	NL	NL
	<b>STEL</b>	NL	NL	NL	NL	NL	NL
2-Propanol,2-Methyl	<b>TWA</b>	100	300	100	303	NL	NL
	<b>STEL</b>	150	450	NL	NL	NL	NL
Hexane	<b>TWA</b>	50	180	50	176	NL	NL
	<b>STEL</b>	NL	NL	NL	NL	NL	NL
n-Propyl acetate	<b>TWA</b>		200		200		
	<b>STEL</b>		250		250		

### 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:** 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
- Butyl Rubber
- Solvex

**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

**ODOR:** Characteristic 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)

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## 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:** Incompatible with alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

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## 11. TOXICOLOGICAL INFORMATION

### ACUTE

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

**ORAL LD<sub>50</sub>:** Practically non-toxic to animals. However, based on reports of human exposure to Methanol, a small amount (usually two or more ounces) can cause mental sluggishness, nausea and vomiting leading to severe illness, blindness or death if treatment is not received.

**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:** 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:** Invertebrate toxicity: LC50 (30 min) Photobacterium phosphoreum = 1540 ppm Microtoxicity test.

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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.

**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.

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## 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

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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:** 2-propanol (CAS #67-63-0)

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

### TSCA (TOXIC SUBSTANCE CONTROL ACT)

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

## 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 B2 - Flammable Liquids. Class D2B - Toxic Materials.

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

## EUROPEAN COMMUNITY

### EEC LABEL SYMBOL AND CLASSIFICATION



EEC Highly flammable - "F"



EEC Harmful - "Xn"

**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

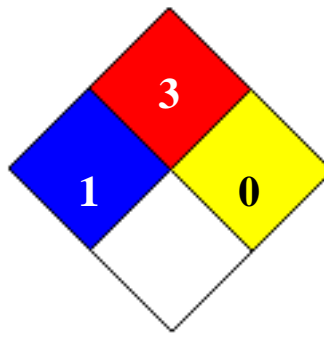
**APPROVED BY:** Pierce A. Pillon    **TITLE:** Chemist

**REVISION SUMMARY** New MSDS

**HMIS RATING**

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