

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

**Date-Issued:** 01/20/2003  
**MSDS Ref. No:** RX1500-16/100  
**Date-Revised:** 01/20/2003  
**Revision No:** New MSDS

**ECG Isopropanol****1. PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** ECG Isopropanol  
**PRODUCT DESCRIPTION:** Generalized Cleaner (Isopropyl Alcohol)  
**PRODUCT CODE:** RX1500-16, RX1500-100

**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	99.6 - 100	67-63-0	200-661-0

**EEC LABEL SYMBOL AND CLASSIFICATION**

EEC Highly flammable - "F"



EEC Irritant - "Xi"



EEC Environment - "N"

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### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

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

**IMMEDIATE CONCERNS:** Flammable liquid and vapor.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Moderately irritating to the eyes.

**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:** This product is toxic by ingestion. Ingestion may cause irritation of the digestive tract. Nausea and vomiting will most likely occur.

**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.

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### 4. FIRST AID MEASURES

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

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

**INGESTION:** Do not induce vomiting. Give milk or water. Get immediate medical attention 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

**FLASHPOINT AND METHOD:** 11.7°C (53°F)TAG CC

**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.

**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.

## 6. ACCIDENTAL RELEASE MEASURES

**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:** Use spark proof tools and explosion proof equipment.

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

## 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

#### 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

**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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Alcohol odor

**APPEARANCE:** Clear, Colorless liquid

**pH:** Neutral

**PERCENT VOLATILE:** 100

**VAPOR PRESSURE:** 33 mmHg at 20°C

**VAPOR DENSITY:** 2.07 (Air=1)

**BOILING POINT:** to 82°C (180°F)

**FREEZING POINT:** to -88°C

**SOLUBILITY IN WATER:** Miscible

**MOLECULAR WEIGHT:** 60.09

**MOLE. WT. FORMULA:** C<sub>3</sub>H<sub>8</sub>O

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## 10. STABILITY AND REACTIVITY

**STABLE:** YES

**HAZARDOUS POLYMERIZATION:** NO

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

**STABILITY:** Stable under normal conditions.

**POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon Dioxide and carbon Monoxide may form when heated to decomposition.

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

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## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**DERMAL LD<sub>50</sub>:** 12800 mg/kg (rabbit)

**ORAL LD<sub>50</sub>:** 5045 mg/kg (rat)

**INHALATION LC<sub>50</sub>:** 16000 ppm, 8-hour

**EYE EFFECTS:** Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate

**SKIN EFFECTS:** Draize test, rabbit, skin: 500 mg Mild.

### CARCINOGENICITY:

**IARC:** NOT listed

**NTP:** NOT listed

**OSHA:** NOT listed

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

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## 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** Isopropyl alcohol has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge.

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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.

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## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

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

### CANADA TRANSPORT OF DANGEROUS GOODS

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ID8000

### AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** CONSUMER COMMODITY ID8000

**UN/NA NUMBER:** ID8000

**VESSEL (IMO/IMDG)**

**PROPER SHIPPING NAME:** ISOPROPANOL

**PRIMARY HAZARD CLASS/DIVISION:** 3

**UN/NA NUMBER:** UN1219

**PACKING GROUP:** II

**IMDG NOTE:** Page 3244

**SPECIAL SHIPPING NOTES:** IATA Limitations: FOR DOMESTIC SHIPMENTS ONLY. When shipping INTERNATIONAL contact the Tech Spray Shipping Department.

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## 15. REGULATORY INFORMATION

### UNITED STATES

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

**311/312 HAZARD CATEGORIES:**

**FIRE:** YES **ACUTE:** YES **CHRONIC:** YES

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

### CANADA

**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.

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

### EUROPEAN COMMUNITY

**EEC LABEL SYMBOL AND CLASSIFICATION**



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EEC Irritant - "Xi"



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## 16. OTHER INFORMATION

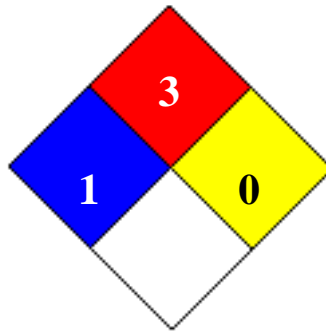
**APPROVED BY:** Pierce A. Pillon    **TITLE:** Chemist

**REVISION SUMMARY** New MSDS

### HMIS RATING

<b>HEALTH:</b>		<b>2</b>
<b>FLAMMABILITY:</b>		<b>3</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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