



# EKC<sup>®</sup>

## MATERIAL SAFETY DATA SHEET

**Product Name: POSISTRIP 830**

Rev.C – Date Prepared: May 8, 1995

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

2520  
BARRINGTON  
COURT

HAYWARD  
CALIFORNIA  
94545-1163

510  
784-9105

510  
784-9181  
FAX

Product Identifier: POSISTRIP 830  
General Use: Positive Photoresist Stripper  
Product Description: Organic Solvent Blend

#### MANUFACTURER:

EKC Technology, Inc.  
2520 Barrington Court  
Hayward, CA 94545  
(510) 784-9105

#### EMERGENCY TELEPHONE NUMBERS:

CHEMTREC (800) 424-9300  
24 Hours Everyday

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt. %	CAS Registry #
2-(2 Aminoethoxy) ethanol	Proprietary	929-06-6
N-Methylpyrrolidone	Proprietary	872-50-4

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	DESCRIPTION	EXPOSURE LIMITS 8 hrs. TWA (ppm)		
		OSHA PEL	ACGIH TLV	Supplier
2-(2 Aminoethoxy) ethanol	Corrosive Liquid	None	None	None
N-Methylpyrrolidone	Combustible Liquid	None	None	100 ppm

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

Light straw colored liquid with an amine odor.  
Corrosive to eyes, skin and respiratory tract.

#### POTENTIAL HEALTH EFFECTS:

##### INHALATION:

May cause respiratory tract irritation. Prolonged or repeated exposure may cause difficulty in breathing, headache, nausea, vomiting, and drowsiness.

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**EYE CONTACT:**

Corrosive. Causes eye burns and permanent tissue damage.

**SKIN CONTACT:**

Corrosive. Causes permanent skin damage.

**INGESTION:**

Corrosive. May cause severe and permanent damage to mouth, throat, and stomach. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

**REPRODUCTIVE:**

Prolonged or repeated exposure may cause reproductive disorders and birth defects based on tests with laboratory animals.

**TARGET ORGAN:**

Prolonged or repeated exposure may cause damage to the lungs, blood, lymph nodes, testes, and thymus based on tests with laboratory animals.

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**4. FIRST AID MEASURES**

**INHALATION:**

Remove to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

**EYE CONTACT:**

Immediately flush eyes with water for at least 15 minutes. Have eyes examined and treated by a physician.

**SKIN CONTACT:**

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. If redness or irritation occurs, seek medical attention.

**INGESTION:**

**DO NOT INDUCE VOMITING:** Give at least one ounce vinegar with water. Seek immediate medical attention. Maintain an open airway. Administer artificial respiration if necessary. Never give anything by mouth to an unconscious person.



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**5. FIRE FIGHTING MEASURES**

Flashpoint and Method: >200°F (93°C)/Tag Closed Cup (TCC)  
Flammable Limits in Air, % by volume: Lower: 2.0 Upper: 12.0  
Autoignition Temperature: 669°F (354°C)  
Extinguishing Media: Water, foam, carbon dioxide, dry chemical.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

None have been identified.

**FIRE FIGHTING INSTRUCTIONS:**

Use water spray to cool containers and fire exposed surfaces. Shut off fuel to fire if possible to do so without hazard.

**FIRE FIGHTING EQUIPMENT:**

Wear full protective clothing with self-contained positive pressure breathing apparatus.

**HAZARDOUS COMBUSTION PRODUCTS:**

Carbon monoxide, nitrogen oxides.

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**6. ACCIDENTAL RELEASE MEASURES**

**SPILL OR LEAK PROCEDURES:**

Evacuate area and keep personnel upwind. Cut off any source of ignition and ventilate the spill area. Contain spill with absorbent material.

Transfer absorbent and other contaminated materials to a DOT approved covered container for disposal. Consult with Federal, State and local regulatory agencies to determine acceptable clean-up levels. Comply with Federal, State and local regulations on reporting releases.

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**7. HANDLING AND STORAGE:**

**STORAGE TEMPERATURE:**

Storage in a cool, dry, well-ventilated area at 40° - 90°F (5° - 32°C) is recommended.

**GENERAL:**

Keep in original tightly closed containers.

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Keep away from oxidizing agents, anhydrides, isocyanates and organometallics.  
Prevent skin and eye contact.

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## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **ENGINEERING CONTROLS:**

No respiratory protection is required when this material is handled under proper ventilation, such as a wet bench or fume hood. If proper ventilation is not available, use a NIOSH approved full-face respirator with canisters or cartridges specifically approved for organic vapors. Whenever cartridges or canister respirators are used, ensure the frequent changing of the filter element. Use a supplied respirator when in doubt of the atmospheric concentration. Consult 29 CFR 1910.134 regarding use of respirators.

### **PERSONAL PROTECTION:**

#### **PROTECTIVE CLOTHING:**

Take all precautions to prevent skin contact. Wear Nitrile or Latex clothing and gloves, and chemical resistant boots when there is a probability of liquid contact. Use chemical goggles or face shield.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Vapor Pressure: 0.6mm Hg at 68°F (20°C)

Specific Gravity: 1.00-1.15 gm/ml

Solubility in Water: Complete

pH: Not Applicable

Boiling Point: 396-430°F (202-221°C)

Vapor Density: >1 (Air = 1)

Evaporation Rate: <1 (Butyl  
Acetate = 1)

Freezing Point: Not available

Odor : Amine

Appearance: Colorless to Light  
Yellow

Physical State: Liquid

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## **10. STABILITY AND REACTIVITY**

### **GENERAL:**

This product is stable at normal temperatures and conditions of storage.

### **INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:**

Strong oxidizing agents, anhydrides, isocyanates and organometallics.

### **HAZARDOUS DECOMPOSITION:**

Will not normally occur.



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## 11. TOXICOLOGICAL INFORMATION

### DATA FOR POSISTRIP 830:

**INHALATION:** LC<sub>50</sub>, rats: >2.65 mg/l, 4 hours; slightly toxic. Signs of respiratory irritation were found.

**INGESTION:** LD<sub>50</sub>, rats: 3280 mg/kg, slightly toxic.

**SKIN CONTACT:** LD<sub>50</sub>, rabbits: >2000 mg/kg, no more than slightly toxic. Corrosive to rabbit skin. Not a sensitizer in guinea pigs.

**EYE CONTACT:** Corrosive to rabbit eyes.

**GENOTOXICITY:** Negative in the Ames test.

### DATA FOR N-METHYLPYRROLIDONE, A COMPONENT OF POSISTRIP 830:

**GENOTOXICITY:** Induced aneuploidy in Saccharomyces cerevisiae.

### DEVELOPMENTAL TOXICITY:

Gavage study (rabbit, days 6-18 of gestation):

NOAEL for maternal toxicity = 55 mg/kg

LOAEL for maternal toxicity = 175 mg/kg

NOAEL for developmental toxicity = 175 mg/kg

LOAEL for developmental toxicity = 540 mg/kg

(malformations and resorptions noted)

Dermal study (rat, days 6-15 of gestation):

NOAEL for maternal toxicity = 237 mg/kg

LOAEL for maternal toxicity = 750 mg/kg

NOAEL for developmental toxicity = 237 mg/kg

LOAEL for developmental toxicity = 750 mg/kg

(embryotoxicity and malformations noted)

Inhalation study (rat, 6 hr/day, days 6-15 of gestation):

NOAEL for maternal and developmental toxicity = 0.36 mg/l

(highest dose)

### REPRODUCTION:

Dietary study (rat):

NOAEL = 160 mg/kg

LOAEL = 500 mg/kg

(decreased fertility and fecundity, embryo- and fetotoxicity noted)

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**SUBCHRONIC:**

Dietary study (13 weeks, dog):

NOAEL = 250 mg/kg (highest dose tested)

Inhalation study (6 hr/day for 90 days plus 4 week recovery, rat):

NOAEL = 1 mg/l

LOAEL = 3 mg/l

(respiratory irritation, decreased weight gain, and effects on testes noted)

Inhalation study (6 hr/day for 4 weeks plus 2 week recovery, rat):

NOAEL = 0.5 mg/l

LOAEL = 1.0 mg/l

(pulmonary edema and congestion, focal interstitial pneumonitis; hemorrhage, hypoplasia, and necrosis in hemopoietic cells; atrophy and necrosis in lymphoid tissues and the thymus noted)

**CHRONIC:**

Inhalation study (6 hr/day for 2 years, rat):

NOAEL = 0.4 mg/l (highest dose tested)

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**12. ECOLOGICAL INFORMATION.**

No data are available for Posistrip 830. Data for N-Methylpyrrolidone, a component, are summarized below.

Chemical fate: Potentially biodegradable under aerobic conditions. Expected to be highly mobile in soil. It may slowly volatilize from dry soil, but is not expected to significantly volatilize from moist soil or from water. It is not expected to significantly bioconcentrate in fish and aquatic organisms.

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**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHODS:**

Consult 40 CFR, Parts 261 and 268 for guidance on disposal of this product. Incineration at a facility with appropriate Federal and State issued permits is the recommended method for disposal.



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**CONTAINER DISPOSAL:**

Empty containers retain product residue. Observe all hazard precautions. Keep away from heat, sparks, and flames. Do not distribute, make available, or reuse empty containers except for storage and shipment of original product. Remove all hazardous product residue, and puncture or otherwise destroy empty containers before disposal. Consult Federal, State, and local regulations for guidance on disposal.

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**14. TRANSPORT INFORMATION**

DOT, IMO and ICAO/IATA

Proper Shipping Name: 2-(2-AMINOETHOXY) ETHANOL, SOLUTION

Hazard Class: CORROSIVE, Class 8

Identification Number: UN 3055

Packing Group: III

Labels Required: Corrosive

IMDG Page No.: 8110

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**15. REGULATORY INFORMATION**

TSCA (Toxic Substance Control Act):

Components of this product are listed on the TSCA Inventory.

SARA TITLE III (Superfund Amendments and Reauthorization Act):

311/312 Hazard Categories.

Acute, Chronic.

313 This product contains N-Methylpyrrolidone at an upperbound concentration of 50% which is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of CFR 372.

CERCLA (Comprehensive Response Compensation, and Liability Act):

NOT Reportable.

We recommend you contact local authorities to determine if there may be other local reporting requirements.

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**16. OTHER INFORMATION**

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Because the health effects from exposure to Posistrip 830 have not been fully evaluated, exposure should be kept to the lowest level possible.

This material is for industrial use and should only be used under the supervision of a technically qualified individual.

**Label Information:**

**NFPA Codes**

Health - 3

Fire - 1

Reactivity - 0

Specific Hazard - Corrosive

**Europe:**

Hazard Symbol: Black Corrosive symbol on orange background.

Classification: Corrosive

Risk Phrases: 34 Causes Burns

Safety Phrases: 36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

**REVISION SUMMARY:**

Rev. B -- Change in vapor pressure. (Limited Distribution)

Rev. C -- Revise SARA 313 listing to include N-Methylpyrrolidone

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Manager, Industrial Hygiene & Health

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