11/26/02

Material Safety Data Sheet

Woohyek Choi
advisor : Babak Ziaie

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **EKC265™**
General Use: Post Etch Residue Remover
Product Description: Aqueous Organic Blend
Revision and Date: Revision I, May 1, 2001

MANUFACTURER
EKC Technology, Inc.
2520 Barrington Court
Hayward, CA 94545-1163
(510) 784-9105

EMERGENCY PHONE NUMBERS
(800) 424-9300
CHEMTREC
24 hours/day, 7 days/week

2. COMPOSITION / INFORMATION ON INGREDIENTS

	Wt.%	CAS Registry #
2-(2-Aminoethoxy) Ethanol	Proprietary	929-06-6
Hydroxylamine	Proprietary	7803-49-8
Catechol	Proprietary	120-80-9

	EXPOSURE LIMITS 8 hrs. TWA (ppm)		
	OSHA PEL	ACGIH TLV	OTHER
2-(2 Aminoethoxy) Ethanol	None	None	None
Hydroxylamine	None	None	None
Catechol	None	5 (Skin)	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Yellow-Orange to Reddish-Orange liquid with an amine odor. Causes burns. May cause allergic skin reaction.

POTENTIAL HEALTH EFFECTS

INHALATION

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

NOTE TO PHYSICIAN

Evacuation of stomach contents should be done by means least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

5. FIRE FIGHTING MEASURES

Flashpoint and Method	>212°F (100°C)/Seta Flash Closed Cup ASTM 3278
Flammable Limits in Air % by volume	Lower: Not available Upper: Not available
Autoignition Temperature	644-662°F (340-350°C)
Extinguishing Media	Water spray, foam, carbon dioxide, dry chemical

UNUSUAL FIRE AND EXPLOSION HAZARDS

Toxic vapors may be given off at high temperatures.

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. If there is potential for skin exposure to EKC265™, see Section 8 of this MSDS.

HAZARDOUS COMBUSTION PRODUCTS

Carbon monoxide, NOx, Ammonia

EYE / FACE PROTECTION

Wear chemical goggles or use chemical goggles under face shield when there is a probability of liquid contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	Not available	Freezing Point:	Not available
Vapor Density:	>1 (Air = 1)	Appearance:	Yellow-orange to Reddish-orange
Specific Gravity:	1.05-1.12	Boiling Range	230-430°F (110-221°C)
Evaporation Rate:	<1 (Butyl Acetate=1)	Odor:	Amine
Solubility in Water:	Complete	Physical State:	Liquid
pH:	11.5-12.5		

10. STABILITY AND REACTIVITY

GENERAL

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

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID

Iron and heavy metal salts, strong oxidizing agents, acids and ketones

HAZARDOUS DECOMPOSITION

Carbon monoxide, NOx, Ammonia

HAZARDOUS POLYMERIZATION

Will not normally occur.

11. TOXICOLOGICAL INFORMATION

DATA FOR EKC265™

INHALATION

No information is available.

EYE CONTACT

Vapors cause irritation, based on human experience.

DATA FOR CATECHOL, A COMPONENT OF EKC265™:

INHALATION

Occupational exposure has been associated with chronic inflammation of the upper respiratory tract.

EYE CONTACT

Corrosive

SKIN CONTACT

Irritation and sensitization have been reported in humans.

GENOTOXICITY

Tests for point mutations in isolated cells that involve direct effects on DNA have been negative when performed by standard EPA acceptable protocols. Some test for chromosomal effects have been positive. Studies that looked for direct effects on DNA in the rat stomach were negative. The results suggest that pyrocatechol does not affect DNA directly.

TARGET ORGANS

Liver, kidneys, blood, stomach, lungs, and central nervous system

CHRONIC TOXICITY

When rats and mice were given oral doses over a lifetime, which were high enough to cause stomach ulcers, the rats eventually developed stomach tumors. No tumors occurred in the mice.

12. ECOLOGICAL INFORMATION

No data are available for EKC265™. Data for the components are summarized below.

DATA FOR HYDROXYLAMINE, A COMPONENT OF EKC265™:

FATE

Rapidly oxidized to nitrates and broken down to nitrous oxide and ammonia in water. Nitrites formed by many bacteria in soil. Converted to oximes by reaction with carbonyl groups.

AQUATIC TOXICITY

48 hr EC/LC_{50} Daphnia magna: 1.62 mg/L, toxic
48 hr EC/LC_{50} Fathead minnow: 1-10 mg/L, toxic
72 hr EC/LC_{50} Algae: 0.72 mg/L, very toxic

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 catechol at an upperbound concentration of 5% which is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION AND LIABILITY ACT)

Not reportable

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

16. OTHER INFORMATION

Because the health effects from exposure to EKC265™ 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.