

MATERIAL SAFETY DATA SHEET

TRANSENE COMPANY, INC.
10 ELECTRONICS AVENUE
DANVERS, MA 01923
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EMERGENCY NO.CHEMTREC 1-800-424-9300

SECTION I. MATERIAL IDENTIFICATION

Manufacturer Name: Transene Company, Inc.
Address: 10 Electronics Avenue Danvers MA 01923
Trade Name and Synonyms: PC Electroless Copper Solution A

Reviewed: April 2005

HMIS Code: Health 1 Flammability 0 Reactivity 0

SECTION II. INGREDIENTS AND HAZARDS

		%	Toxicity (mg/M ³)
Hazardous Mixtures of Other Liquids, Solids, or Glass			
Ethylene Diamine Tetraacetate Tetrasodium Salt	CAS# 64-02-8	1-5	LD ₅₀ : 2.09
Triethanolamine	CAS# 102-71-6	5-10	N.E.
Diethanolamine	CAS# 111-42-2	1-5	3 ppm
Copper Sulfate	CAS# 7758-99-8	1-5	100 ppm
Sodium hydroxide	CAS# 1310-73-2	1-5	2 mg/M ³
Aqueous Solution		Balance	

SECTION III. PHYSICAL DATA

Boiling point at 1 atm, deg C	N/A	Specific gravity, 20/4°C	1:1
Vapor pressure at 15°C, mm Hg	N/A	Evap. Rate(BuAc = 1)	N/A
Vapor density (Air = 1)	N/A	Volatiles, %	
Water solubility at 20°C	100%	Evaporation Rate	N/A
Appearance & Odor:	Clear Blue Liquid		

SECTION IV. FIRE AND EXPLOSION DATA

<u>Flash Point and Method</u>	<u>Auto-ignition Temp.</u>	<u>Flammability Limits In Air</u>	LOWER	UPPER
Non-flammable	N/A	N/A	---	---

Extinguishing media: Water fog, alcohol foam, CO, dry chemical

Special fire fighting procedures: Self contained breathing apparatus

Usual fire and explosion hazards: Nitrogen oxides/carbon monoxide/carbon dioxide fumes

SECTION V. REACTIVITY DATA

Stability: Stable X Conditions to avoid: Excess heat
Unstable
Incompatible with: Oxidizers

Hazardous decomposition products: Possible nitrogen oxides. This product should not be stored in aluminum due to possible discoloration, and excessive corrosion and potential chemical reaction releasing flammable hydrogen gas

Hazardous polymerization: Will not occur

SECTION VI. SPILL, LEAK AND DISPOSAL PROCEDURES

Action to take for spills (use appropriate safety equipment): use absorbent material or sand. Scoop up and put in a clean drum.

Disposal method: Material contains copper. Dispose of in accordance with all state, federal, and local regulations.

SECTION VII. HEALTH HAZARD INFORMATION

Ingestion: low single dose. Oral toxicity: LD50 (rat) approx. 5000 mg/kg

Eye contact: Severe pain, moderate to severe irritation. No corneal injury likely.

Skin contact: Not likely to be absorbed in toxic amounts. Short contact: mild to moderate irritation; prolonged contact: moderate irritation or mild burn.

Inhalation: No guide for mixture known. Dow industrial hygiene guide for diethanoloamine is 3ppm. Low volatility. If heated: Bad odor and may be irritating.

SECTION VIII. FIRST AID - NOTE TO PHYSICIAN

First aid procedures

Eyes: irrigate with flowing water immediately and continuously for 15 min. Refer to medical personnel.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse, and destroy contaminated shoes.

Inhalation: Remove to fresh air if effects occur. Call physician and/or transport to medical facility.

Ingestion: If swallowed, induce vomiting immediately by giving 2 glasses of water and sticking finger down throat. Call a physician.

NOTE TO PHYSICIAN:

Eyes: may cause corneal injury or burn. Stain for evidence of corneal injury. If cornea is burned, apply antibiotic steroid preparation frequently. Consult ophthalmologist

Skin: May cause moderate irritation. May Cause burn. Treat as any contact dermatitis. If burn is present, treat as any thermal burn. Not likely to be absorbed in acutely toxic amounts.

Respiratory: May cause moderate irritation. Administer oxygen if available. Brochodilators, expectorants and antitussives may be of help.

Oral: low to moderate toxic

General: Human effects not established. Consult literature. No specific antidote. Treatment based on the sound judgement of the physician and the individual reactions of the patient.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Respiratory protection: NIOSH approved respiratory protection required in absence in proper environmental control. For emergencies, a self-contained breathing apparatus or full-faced respiratory mask as approved by NIOSH is recommended.

Ventilation: Recommended control of vapors of diethanolamine to suggested guide.

Protective clothing: Clean, body covering clothing.

Eye protection: Chemical workers goggles, eye fountain and washing facilities near work area.

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

Precautions to be taken in handling and storage: Avoid skin and eye contact. Avoid breathing vapors if generated.

DOT Class: Chemicals N.O.S., non-regulated

PC ELECTROLESS COPPER SOLUTION A
ATTACHMENT

ADDENDUM TO MATERIAL SAFETY DATA SHEET
REGULATORY STATUS

THIS ADDENDUM MUST NOT BE DETACHED FROM THE MSDS IDENTIFIES SARA 313 SUBSTANCE(S)
Any copying or redistribution of the MSDS must include a copy of this addendum (Chem.Key: PHACD)

HAZARD CATEGORIES FOR SARA
Section 311/312 Reporting

Acute Chronic Fire Pressure Reactive

Product or Components Of Products	SARA EHS Sect. 302		SARA Section 313 Chemicals		CERCLA Sec. 103	RCRA
	RQ (lbs.)	TPQ (lbs.)	Name List	Chemical Category	RQ (lbs.)	Section 261.33
Sodium Hydroxide CAS# 1310-73-2	No	No	Yes	No	1000	No
Copper Sulfate (copper compound) (7758-99-8)	No	No	No	Yes	10	No

Applicable Products:
 PC Electroless Copper Solution A
 SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.
 SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity + 10,000 LBS.
 SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.
 CERCLA Sec 103: Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center (800-424-8802); Listed at 40 CFR 302.4
 RCRA: Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

Effective Date May 2002 Supersedes February 1987