

MATERIAL SAFETY DATA SHEET

TRANSENE COMPANY, INC.
10 ELECTRONICS AVENUE
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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 C

Reviewed April 2004

HMIS Code: Health 1 Flammability 0 Reactivity 0

SECTION II. HAZARDOUS INGREDIENTS

| | | <u>%</u> | <u>Toxicity (mg/m³)</u> |
|-------------------|-----------------|----------|------------------------------------|
| Hydrochloric acid | CAS # 7647-01-0 | 1-5 | 5ppm |
| Stannous chloride | CAS # 7772-99-8 | 1-5 | 2 mg/m ³ ** |
| Water | | Balance | ----- |

**Tin US Occupational Standard

SECTION III. PHYSICAL DATA

| | | | |
|--------------------------------|------------------|---------------------------|-----|
| Boiling point at 1 atm, deg C | >200 F | 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: | Colorless 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, dry chemical, foam, carbon dioxide

Special fire fighting procedures: Use NIOSH self-contained breathing apparatus. Wear chemically protective gear.

Usual fire and explosion hazards Highly corrosive with metals resulting in the release of hydrogen gas

SECTION V. HEALTH HAZARD DATA

Threshold limit value: 2 mg tin/m³ (of tin)

Effects of overexposure: Will cause irritation of eyes, skin and respiratory tract upon contact or inhalation

Emergency and First Aid Procedures: Contact a Physician immediately!

Eyes: Wash eyes immediately with large amounts of water, lifting lids occasionally.

Skin: Remove contaminated clothing. Wash affected areas with liberal soap and water.

Inhalation: Remove to fresh air. Get prompt medical attention. Never give fluids or induce vomiting if patient is unconscious or having convulsions.

SECTION VI. REACTIVITY DATA

Stable

Conditions to avoid: Will react vigorously with water and aqueous alkaline solution.

Incompatibility: Water, bases

Hazardous decomposition products: HCl

Hazardous polymerization: Will not occur.

SECTION VII. SPILL AND LEAK PROCEDURES

Steps to be taken incase material is released or spilled. Corrosive to metal. Will be injurious to aquatic life if discharged to open waters. Flush area with large volumes of water. Neutralize using soda ash or dilute alkaline solution.

Waste disposal method: Contact professional disposal agency. Dispose of according to local, state, and federal regulations.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Respiratory protection: Use air-supplied breathing apparatus or respirator approved for acid fumes and dust.

Ventilation: Local exhaust such as a fume hood/ Laminar flow hood is required.

Protective gloves: Impervious rubber

Eye protection: Do not wear contact lenses. Use safety goggles or splash shield.

Other protective equipment: Rubber boots, plastic apron, eye wash station, safety shower.

SECTION IX. SPECIAL PRECAUTIONS

Precautions to be taken: NO DOT HAZARD LABEL REQUIRED. May cause irritation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling

Other precautions: Do not inhale dust. Avoid contact with eyes, skin, and clothing. Store in cool dry area.

ADDENDUM TO MATERIAL SAFETY DATA SHEET REGULATORY STATUS

THIS ADDENDUM MUST NOT BE
DETACHED FROM THE MSDS
IDENTIFIES SARA 313 SUBSTANCE(S)

HAZARD CATEGORIES FOR SARA

Any copying or redistribution of the MSDS must include a copy of this addendum (Chem.Key: PHACD)

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 |
| Hydrochloric Acid (7647-01-0) | 5000 | 500 | Yes | No | 5000 | No |

Applicable Products:

PC Electroless Copper Solution C

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