

Emile Davies - Venn
05/25/05

MATERIAL SAFETY DATA SHEET

Copper Etch APS-100

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Copper Etch APS-100
Alternate Trade Name(s): APS-100
General Use: Etchant for copper and copper films.

Manufacturer
Transene Co.
10 Electronics Ave.
Danvers, Ma 01923
978-777-7860 fax# 978-739-5640
www.transene.com

Emergency Telephone Number
Chemtec: 1(800)-424-9300

Reviewed 5-1-02

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt%
Ammonium Persulfate	7727-54-0	15-20%,

3. HAZARDS IDENTIFICATION

EMERGENCY OVRVIEW

Immediate Concerns:

Oxidizer. Decomposes in storage under conditions of excessive heat causing release of oxides of sulfur, nitrogen and oxygen that supports combustion. Decomposition could form a high temperature melt.

POTENTIAL HEALTH EFFECTS:

Ingestion may cause irritation to mouth and stomach. Prolonged exposure may cause skin sensitization.

4. FIRST AID MEASURES

Eyes:

Flush with water for at least 15 minutes. If irritation occurs and persist, obtain medical attention.

Skin:

Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Ingestion:

Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything to an unconscious person. See medical doctor immediately.

Inhalation:

Remove to fresh air. If breathing difficulty or discomfort occurs or persists, contact a medical doctor.

Notes to medical doctor:

This product has a moderate oral toxicity and is minimally irritating to the eyes. Flooding of exposed areas with water is suggested, but gastric lavage or emesis induction for ingestion must consider the possible aggravation of esophageal injury and the expected absence of systemic effects. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

Chemical name:	TWA (ACGIH)	STEL/ceiling (ACGIH)	PEL OSHA	STEL/ceiling OSHA
Ammonium Persulfate	0.1 mg/m ³			

Engineering controls:

Provide mechanical and /or general room ventilation. Remove contaminated clothing immediately and wash before reuse.

Personal protective equipment

Eyes and Face: Use cup type chemical type goggles. Full- face shield may be used.
 Respiratory: None required where ventilation is adequate. Appropriate respirator may be used.
 Protective clothing: Rubber or neoprene gloves. Rubber or neoprene footwear. Normal work clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: None
 APPEARANCE: Clear liquid
 PERCENT VOLATILE: 80-85%
 VAPOR PRESSURE: Not applicable
 VAPOR DENSITY: Not applicable
 BOILING POINT: 212° C
 MELTING POINT: Not applicable
 SOLUBILITY IN WATER: % by wt. @ 25° C (77° F): Not applicable
 EVAPORATION RATE: (Butyl Acetate=1): Not applicable
 DENSITY: Not applicable
 SPECIFIC GRAVITY: (H₂O=1): 1.98
 COEFF. OIL/WATER: Not applicable
 ODOR THRESHOLD: Not available
 OXIDIZING PROPERTIES: Oxidizer

10. STABILITY AND REACTIVITY

Conditions to avoid:

Heat

Stability:

Stable (becomes unstable in presence of heat and contamination).

Polymerization:

Will not occur.

Hazardous decomposition products:

Oxygen that supports combustion and oxides of sulfur and nitrogen.

Incompatible materials:

Acids, alkalis, halides (fluorides, chlorides, bromides), combustible materials, heavy metals, oxidizable materials, reducing agents and organic compounds.

11. TOXICOLOGICAL INFORMATION

Eye effects:

Minimally irritating (rabbit) [FMC 187-0968]

NFPA Rating:

Health: 1

Flammability: 0

Reactivity: 1

Special: Oxidizer

15. REGULATORY INFORMATION**United States**

SARA TITLE III (Superfund Amendments and Reauthorization Act)

Section 311 Hazard Category (40 CFR 370): Fire Hazard, Immediate (acute) Health Hazard.

Section 312 Threshold Planning Quantity (40 CFR 370): 10000 lbs.

Section 313 Reportable Ingredients (40 CFR 372): Not listed

SARA TITLE III Section 302 Extremely Hazardous Substances (40 CFR 355): Not listed

CERCLA (Comprehensive Environmental Response Compensation and Liability Act)

CERCLA Regulatory (40 CFR 302.4): Unlisted, RQ=100 lbs., Ignitability

TSCA (Toxic Substances Control Act)

TSCA Status (40 CFR 710): Listed

RCRA Status: Waste No. D001

Canada

WHMIS (Worker Hazardous Materials Information System):

Product Identification No: 1444

Hazardous Classification: class C (Oxidizer), Class D, Div. 2, Subdiv. B (Toxic)

Ingredients Disclosure List: Listed

16. OTHER INFORMATION**Revision Summary:** Summary #3

Revision Date: April 2004

This MSDS replaces the September 27, 1985 MSDS.