

GOLD METAL ELECTROETCH

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Photo Systems, Inc.

Product Number: **106010, 106322**

Customer Information Phone Number:

CHEMTREC®: 24 Hour Emergency Transport Phone Number: 1-800-424-9300

Product Name: **GOLD METAL ETCH**

Date Prepared: 09/28/2007

1-800-521-4042

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS</u>	<u>OHSA PEL</u>	<u>ACGIH TLV</u>	<u>Weight %</u>
MONOAMMONIUM PHOSPHATE	7722-76-1	N.E.	N.E.	5-10
GLYCERINE	56-81-5	10 mg/m ³ mist	10 mg/m ³ mist	5-10
SODIUM FERROCYANIDE	13601-19-9	5 mg/m ³	1 mg/m ³	1-5

3. HAZARDOUS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause irritation or damage to tissue.

Inhalation: May cause irritation to nasal mucous membranes and respiratory tract. Headaches may occur from overexposure to vapors in confined, unvented areas.

Ingestion: May cause irritation to digestive tract. Ingestion may cause headache, dizziness, unsteadiness, nausea, vomiting, and a feeling of suffocation.

Skin Contact May cause irritation and allergic skin reaction.

Signs And Symptoms Of Exposure: Eye irritation, respiratory irritation, dermatitis, difficulty breathing, abdominal pain, skin irritation, mucus membrane irritation, coughing, nausea, diarrhea.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for at least 15 minutes. Get immediate medical attention.

Inhalation: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: If swallowed, induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Wash area with soap and water for at least fifteen minutes. If irritation occurs, get medical attention.

Aggravated Medical Conditions: Dermatitis and those with asthma or other respiratory impairment.

Supplemental Health Information: None of the components in the product is listed by IARC, NTP, or OSHA as a carcinogen.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point: Non-flammable Flash Point Method: Not applicable Auto-ignition: Not applicable

LEL: Not applicable UEL: Not applicable
Extinguishing Media: Any applicable to the primary cause if the fire.
Special Fire-Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus when entering the building.
Unusual Fire And Explosion Hazards: None known.
Combustion Products: Carbon dioxide and carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Spilled Or Released: Review fire and explosion hazards and safety precautions before proceeding with cleanup. Use appropriate personal protective equipment. Dike the spill. Prevent liquid from entering sewers, waterways or low areas. Waste Ferricyanides should not exceed 2ppm in streams or lakes because irradiated solutions become toxic to fish. Soak up with sawdust, sand, or other absorbent material. Remove non-usable solid material and/or contaminated soil for disposal in an approved and permitted landfill. Discharge to sewer requires approval of permitting authority and may require pre-treatment.

7. HANDLING AND STORAGE

Precautions To Be Taken In Handling And Storage: Do not store in sunlight or near strong acids. Store in well ventilated area, keep container tightly closed. Do not store near heat. Do not store food, drink, or tobacco in area where they may become contaminated with this material.

Other Precautions: All labeled precautions must be observed when handling, storing and transporting empty containers due to product residues. Do not reuse containers. Triple rinse container before disposal. Dispose of in a licensed facility. Recommended crushing or other means to prevent re-use.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use of respiratory protection is generally not required. However, if use conditions generate vapors or fumes, use a NIOSH approved organic vapor respirator.
Ventilation: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination
Protective Gloves: Rubber or neoprene waterproof gloves are recommended.
Eye Protection: Safety glasses with side shields (or goggles)
Other Protective Clothing or Equipment: Rubber or plastic apron.
Work/Hygienic Practices: Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet.
Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Exposure Guidelines: See Section 2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Clear straw colored solution, faint almond odor.
Solubility In Water: Complete Vapor Pressure: 18 mm Hg@ 20 Degrees C
Specific Gravity: 1.10 Melting Point: Not applicable Freezing Point: N.E
Evaporation Rate: N.E. Vapor Density: N.E. Percent Volatile: 77.43

Ph: 4.4

Molecular Weight: Not applicable

Pounds Per Gallon: 9.16

V.O.C. is 4.04 g/L or 0.37% or .033 lb. / gal.

Boiling Point: 100°C

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions To Avoid: Extreme heat. Do not mix with hot or concentrated acids. Avoid sunlight.

Liberates hydrogen cyanide.

Incompatibility: Strong acids; oxidizers, and alkalis.

Hazardous Decomposition Or By Products: Ammonia, hydrogen cyanide, chlorine gas with chlorine bleach.

Hazardous Polymerization: Will Not Occur

Conditions To Avoid: Not applicable.

11. TOXICOLOGICAL INFORMATION

Toxic to fish and other water organisms

12. ECOLOGICAL INFORMATION**13. DISPOSAL CONSIDERATIONS**

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORT INFORMATION

DOT Class: NOT REGULATED

Hazard Class: NONE

UN No.: NOT APPLICABLE

Packing Group:

Guide No:

Ship Name:

15. REGULATORY INFORMATION

TSCA: All ingredients in this finished product are listed on the EPA TSCA INVENTORY.

SARA TITLE III: NONE

CALIF. PROP. 65: NONE

CARCINOGENICITY: NONE OF THE COMPONENTS IN THIS CHEMICAL IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

SCAQMD Rule 443.1

Photochemically Reactive: No

Maximum Grams of VOC per Liter: 4.0 g/L

Vapor Pressure: 18 mm Hg@ 20 Degrees C

16. OTHER INFORMATION (HMIS)

Health: 2

Flammability: 0

Reactivity: 0

Protective: C

OTHER ADDITIONAL INFORMATION: The information and recommendations contained herein are based on data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.