




## SDS – Tin Plating Pen PL-1012

### 1. Product and Company Identification

<b>Product Name</b>	Tin Plating Pen PL-1012
<b>Other Product Name(s)</b>	PL-1012 Tin Plating Pen
<b>Product Use</b>	Tin electroplating
<b>Manufacturer</b>	Hunter Products, Inc. 36 Madison Ave. Flemington NJ 08822 908-526-8440
<b>Emergency Telephone Number</b>	908-230-0800

### 2. Hazards Identification

**Emergency Overview:** Black pen-like dispenser of compound containing tin compound used for electroplating. Can cause skin and eye burns and skin allergic reactions and vapors are harmful causing several serious health effects

<b>OSHA Regulatory Status</b>	Hazardous
<b>OSHA Classification</b>	Skin Corrosion/Irritation: 1B Eye Damage/Irritation 1 Dermal Sensitization 1 Germ Cell Mutagenicity 2 STOT RE 1
<b>OSHA Signal Word</b>	DANGER
<b>OSHA Hazard Statements</b>	Causes severe skin burns and eye damage. May cause allergic skin reaction. May damage internal organs through long or repeated exposure. Suspected of causing genetic effects.
<b>OSHA Precautionary Statements</b>	Wear glasses or goggles and protective gloves (while handling). Do not breathe fumes or vapors (during use). Do not swallow. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. If swallowed, call a physician or Poison Control Center. Do not induce vomiting. If In Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor. If On Skin: Wash with plenty of water. If skin irritation, burns or rash occurs: Get medical advice/attention. For Respiratory Irritation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Get medical advice or attention. Store locked up. Dispose of in accordance with Federal, State and local regulations.
<b>OSHA Label Symbols</b>	
<b>Other Hazards Not Specified by OSHA</b>	Aquatic Toxicity Chronic 2

35% of product consists of ingredients with unknown oral toxicity.

### Potential Health Effects:

<b>Skin</b>	Causes irritation and may cause burn in the absence of prompt first aid. Tin may cause allergic skin reaction
<b>Eyes</b>	Causes irritation and possible permanent damage.
<b>Ingestions</b>	May cause stomach discomfort if swallowed.
<b>Inhalation</b>	No likely to cause immediate discomfort.
<b>Chronic Effects</b>	Long term exposure may cause organ damage to and potential genetic effects to future generations..

Ingredients found on established carcinogen lists:

<b>Ingredient</b>	<b>NTP Status</b>	<b>IARC Statue</b>	<b>OSHA List</b>
No ingredients on lists.	---	---	---

### 3. Composition / Information on Ingredients

<b>Chemical Name</b>	<b>CAS #</b>	<b>EC Number</b>	<b>Wt. %*</b>
Tin sulfate (Corrosive to metals 1 Acute toxicity, Inhalation 4 Skin irritation 2 Eye irritation 2A Skin sensitization1, Germ cell mutagenicity 2 STOT- SE 3, Respiratory system, STOT- RE 2 Cardio-vascular system, Chronic aquatic toxicity 1	7488-55-3	231-302-2	5 – 10
Ammonium hydroxide (Skin corrosion 1B)	1336-21-6	215-647-6	10 – 20
Citric acid (Eye damage/irritation) 2	77-92-2	201-069-1	10 – 20
Water (not hazardous)	7732-18-5	231-791-2	50 – 70

\* Exact percentages are trase secret.

### 4. First Aid Measures

<b>Skin</b>	If on skin wash with plenty of water. If skin irritation, burns or allergic reactions occurs: Get medical advice/attention.
<b>Eyes</b>	If in eyes: Rinse cautiously with water for up to 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor for burns or irritation.
<b>Ingestions</b>	Contact a poison control center ff irritation or other symptoms may occur.
<b>Inhalation</b>	Remove to fresh air..
<b>Advice to Physician</b>	Treat symptomatically.

### 5. Fire Fighting Measures

<b>Extinguishing Media:</b>	Use any agent suitable for surrounding fire (but do not allow runoff to enter sewers or natural waterway.)
<b>Fire/Explosion Hazards:</b>	None noted
<b>Fire Fighting Procedures:</b>	Wear normal turn-out gear. Avoid contact with skin and eyes. Wear self-contained respiratory protection.
<b>Flammable Limits:</b>	None
<b>Flash Point</b>	None
<b>Auto ignition Temperature:</b>	Not determined
<b>Hazardous Combustion Products:</b>	Toxic inorganic and organic compounds and metal (tin) fumes.

## 6. Accidental Release Measures

<b>Personal Precautions:</b>	Wear proper personal protective equipment indicated in Section 8.
<b>Containment:</b>	Pick up pen(s).from ground.or other surface
<b>Clean Up:</b>	Discharge of contents highly unlikely. In case of liquid spill, use absorbent like clay or kitty litter and place in container for disposal.
<b>Notification Requirements:</b>	None for this item size. (Also see section 15.)

## 7. Handling and Storage

<b>Handling:</b>	Wear proper personal protective equipment indicated in Section 8. Wash hands before eating or drinking.
<b>Storage:</b>	Should be stored in a dry location. Keep packages tightly closed to minimize product contamination. Keep out of the reach of children.

## 8. Exposure Controls / Personal Protection

<b>Engineering Controls:</b>	Appropriate ventilation for removal of all electroplating vapors should be used. Follow all recommended exposure guidelines found below.
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### Personal Protective Equipment:

<b>Eyes and Face:</b>	Wear safety glasses or chemical goggles to avoid accidental eye contact.
<b>Respiratory:</b>	Point ventilation to remove all electroplating vapors and fumes should be used.
<b>Hands, Arms, and Body:</b>	Use work gloves and aprons suitable for electroplating operations.
<b>Other</b>	Safety shower and an eyewash (or source of running water) should be available for emergency exposures.

### Exposure Guidelines:

Ingredient	ACGIH TLW	ACGIH STEL	OSHA PEL	OSHA STEL
Tin sulfate	2 mg/m <sup>3</sup>	---	2 mg/m <sup>3</sup>	---

## 9. Physical and Chemical Properties

<b>Appearance &amp; Physical State</b>	Black pen-like device containing colorless liquid ingredient
<b>Odor:</b>	None
<b>Odor Threshold:</b>	None
<b>pH</b>	Not determined
<b>Specific Gravity (Relative density):</b>	Not determined for liquid
<b>Initial Boiling Point &amp; Range:</b>	~ 212°F (100°C)
<b>Melting Point /Freezing Point:</b>	Less than water
<b>Evaporation Rate:</b>	Not determined
<b>Percent Volatile:</b>	Not determine
<b>Solubility in Water</b>	Completely soluble
<b>Vapor Density:</b>	Not determined
<b>Vapor Pressure:</b>	Not determined
<b>Upper/ Lower Flammable Limits:</b>	None
<b>Flash Point</b>	None

<b>Auto ignition Temperature:</b>	Not determined
<b>Flammability (solid, gas)</b>	Not applicable
<b>Octanol/water partition coefficient</b>	Not determined
<b>Decomposition temperature</b>	Not determined
<b>Viscosity</b>	Not determined

## 10. Stability and Reactivity

<b>Stability:</b>	Stable product
<b>Conditions to Avoid:</b>	None anticipated
<b>Materials to avoid</b>	Can react with strong oxidizers.
<b>Hazardous Polymerization:</b>	Will not occur
<b>Hazardous Decomposition Products</b>	Toxic tin and sulfur oxide fumes

## 11. Toxicological Information

<b>Eye:</b>	Causes eye irritation and/or corrosive burns
<b>Skin:</b>	May cause irritation, corrosive burns and allergic reactions
<b>Oral:</b>	Calculated toxicity is 2208 mg/kg. (Toxicity cat 5)
<b>Inhalation:</b>	Processing vapors may expose personnel to tin.
<b>Chronic:</b>	Tin may cause genetic damage and may damage cardiovascular system.

## 12. Ecological Information

<b>Acute ecotoxicity:</b>	May be toxic to aquatic species
<b>Chronic ecotoxicity</b>	Toxic to aquatic species
<b>Other information</b>	May persist in the environment

## 13. Disposal Considerations

<b>RCRA Status</b>	Not a hazardous waste if discarded
<b>Disposal Method:</b>	Conform with Federal, State and Local regulations.

## 14. Transportation Considerations

<b>DOT Proper Shipping Name:</b>	Not regulated for transport
<b>DOT Primary Hazard Class</b>	Not applicable
<b>DOT UN / NA Number:</b>	Not applicable
<b>DOT Packing Group</b>	Not applicable
<b>TDG (Canada)</b>	Not regulated for transport
<b>IMDG (International water)</b>	Not regulated for transport
<b>ICAO (Air transport)</b>	Not regulated for transport

## 15. Regulatory Information

### UNITED STATES:

#### Toxic Substances Control Act (TSCA)

<b>TSCA Inventory Status:</b>	Listed on TSCA Chemical Inventory
<b>Other TSCA Issues:</b>	None

#### SARA Title III/CERCLA

Ingredients with "Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs).

<b>Ingredient</b>	<b>SARA/CERCLA RQ (lb.)</b>	<b>SARA EHS TPQ (lb.)</b>
Ammonium Hydroxide	1000	---

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

<b>SARA 311 Hazard Class:</b>	Immediate, delayed
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#### SARA 313 Toxic Chemicals:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

<b>Ingredient</b>	<b>Comment</b>
Ammonium Hydroxide	Must be reported annually (EPCRA regulations)

#### State Right-To-Know

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<b>Ingredient</b>	<b>Weight %</b>	<b>Comment</b>
No additional chemicals listed		

<b>Additional Regulatory Information:</b>	None
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## 16. Other Information

- Keep out of the reach of children.

<b>Issue Date:</b>	November 21, 2015
<b>Previous Issue Date:</b>	January 1, 2008
<b>Changes from previous version:</b>	Revision of format to meet HCS 2012.

#### **National Fire Protection Assoc. (NFPA) Classification:**

4 = Severe; 3 = Serious; 2 = Moderate; 1 = Slight, 0 = Minimal

Health 3      Flammability 0      Reactivity 0

#### **Hazardous Materials Information Systems (HMIS):**

4 = Extreme; 3 = High; 2 = Moderate; 1 = Slight; 0 = Insignificant

Health 3\*      Flammability 0      Physical Hazard 0      \* = Chronic health risk