Phosphomolybdic-Phosphotungstic Acid Solution

1. Identification

Product Name: Phosphomolybdic-Phosphotungstic Acid Solution
Synonyms: N/A
Recommended Use: Special Stain
Restrictions on Use: N/A
Manufacturer/Supplier: Avantik Biogroup
32 Commerce Street
Springfield, NJ 07081
1-888-392-8411

In Case of Emergency:
Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):
- Skin Corrosion - Category 1A
- Eye Damage - Category 1
- Oxidizing Liquids - Category 3
Signal Word: Danger
Hazard Statement(s): Causes severe skin burns and eye damage. Causes serious eye damage. May intensify fire; oxidizer.
Pictogram(s):

Precautionary Statement(s):
Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection. Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles and/or incompatible materials. Wear protective gloves, eye protection, face protection. Wear flame resistant clothing.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store locked up.
Disposal: Dispose of contents/container in accordance with local regulations.

3. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS #</th>
<th>Concentration %</th>
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<tbody>
<tr>
<td>Phosphomolybdic Acid</td>
<td></td>
<td>51429-74-4</td>
<td>Trade Secret</td>
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<tr>
<td>Phosphotungstic Acid</td>
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<td>12501-23-4</td>
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<td>Water</td>
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<td>7732-18-5</td>
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4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention immediately.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention immediately.
Phosphomolybdic-Phosphotungstic Acid Solution

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention immediately.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness. Chemical burns or redness to skin.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

**5. Fire-Fighting Measures**

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**6. Accidental Release Measures**

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

**7. Handling and Storage**

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated, cool place. Keep lid tightly closed.

**8. Exposure Controls/Personal Protection**

**OSHA Permissible Exposure Limits (PELs):**

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<tr>
<th>Reagent</th>
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<th>OSHA PEL TWA</th>
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<tbody>
<tr>
<td>Phosphomolybdic Acid</td>
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<td>15mg/m3 (as Mo)</td>
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**ACGIH Threshold Limit Values (TLVs):**

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<th>CAS #</th>
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<tr>
<td>Phosphotungstic Acid</td>
<td>12501-23-4</td>
<td>5 mg/m3 (as W)</td>
<td>10mg/m3 (as W)</td>
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</table>

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

**9. Physical and Chemical Properties Section**

**Appearance:** Colorless, Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** 1.6-1.8

**Boiling Point and Boiling Range:** N/A

**Melting Point/Freezing Point:** N/A

**Flash Point:** N/A

**Specific Gravity/Relative Density:** 1.038
Phosphomolybdic-Phosphotungstic Acid Solution

**Odor:** N/A
**Odor Threshold:** N/A
**Color:** Colorless
**Flammability (solid/gas):** N/A
**Vapor Density:** N/A
**Upper/Lower flammability or explosive limits:** N/A
**Vapor Pressure:** N/A
**Evaporation Rate:** N/A
**Partition Coefficient: n-octanol/water:** N/A
**Viscosity:** N/A
**Auto-ignition temperature:** N/A
**Solubility:** N/A
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity
**Reactivity:** N/A
**Chemical Stability:** Stable
**Conditions of Stability/Instability:** N/A
**Stabilizers needed:** None
**Safety issue indicated by appearance change:** N/A
**Other:** N/A
**Hazardous Reactions:** N/A
**Hazardous Polymerization:** Does not occur
**Conditions to avoid:** N/A
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information
**Likely Routes of Exposure**
- **Eyes:** Corrosive solution. May cause permanent damage to cornea, redness and pain in eyes. May cause blindness.
- **Skin:** Corrosive solution. May cause permanent damage to skin, redness, pain. Causes chemical burns.
- **Inhalation:** Dizziness, headache. Corrosive solution. Inhalation may irritate or burn inside nostrils. May irritate respiratory.
- **Ingestion:** Corrosive solution. May chemically burn mouth, throat, stomach, and digestive tract. Do not swallow.

**Signs or Symptoms of Exposure:** Nausea, dermatitis, headaches.
**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** Phosphotungstic Acid: LD50(oral,rat)=3300 mg/kg

**Carcinogenicity (NTP, IARC, OSHA):** Does not contain any known carcinogen.

### 12. Ecological Information
**Ecotoxicity:** N/A
**Persistence and degradability:** N/A
**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A
**Mobility in the soil:** N/A
**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations
Phosphomolybdic-Phosphotungstic Acid Solution

**Recommended Disposal Containers:** Check with your local waste authorities.

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.

**Waste Stream:** Consult your local or regional authorities.

### 14. Transport Information

**UN Number:** UN3264

**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, n.o.s. (Phosphomolybdic Acid Hydrate)

**Transport Hazard Class(es):** 8

**Packing Group Number:** II

**Environmental Hazards (IMDG code):**
- Marine Pollutant: No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**
Phosphomolybdic-Phosphotungstic Acid Solution

16. Other Information

Revision Date: 03/20/2015

NFPA

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National Fire Protection Association (USA) NFPA

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HMIS

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Hazardous Material Information System HMIS

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