Periodic Acid, 0.5%

1. Identification

Product Name: Periodic Acid, 0.5%
Synonyms: N/A
Recommended Use: Stains
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 1B
Eye Damage - Category 1
Signal Word: Danger
Hazard Statement(s): Causes severe skin burns and eye damage. Causes serious eye damage.
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.

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

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A
Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS #</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>99.5</td>
</tr>
<tr>
<td>Periodic Acid</td>
<td></td>
<td>10450-60-9</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

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.

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.

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.

Symptoms: Severe burns to eyes and skin. Irritation nose, throat; headache, dizziness

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell or have been exposed to eyes or skin.
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. Corrosive material, may damage concrete, metal and other materials.

7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product. Avoid skin and eye contact. Wash thoroughly after handling.

**Storage:** Store locked up. Store in a cool, well-ventilated place, keep out of sunlight. Do not store near combustible materials. Keep away from heat, sparks or flame. Keep container closed.

8. Exposure Controls/Personal Protection

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

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>OSHA PEL TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ACGIH Threshold Limit Values (TLVs):**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>ACGIH PEL TLV</th>
<th>ACGIH STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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:** 2.0-2.1
**Boiling Point and Boiling Range:** 100°C
**Melting Point/Freezing Point:** N/A
**Flash Point:** N/A
**Specific Gravity/Relative Density:** N/A
**Odor:** Pungent
**Odor Threshold:** N/A
**Color:** Colorless
Periodic Acid, 0.5%

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: Soluble in water.
Decomposition Temperature: N/A

10. Stability and Reactivity
Reactivity:
Chemical Stability: Stable
Conditions of Stability/Instability: Avoid ignition sources.
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: Strong reducing agents, strong bases, dimethyl sulfoxide, finely powdered metals, tetraethylammonium hydroxide, dimethyl sulfoxide (DMSO).
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
Eye: Causes serious eye burns. May cause permanent corneal opacification.
Skin: Causes serious skin burns. May cause skin rash (in milder cases), and cold, clammy skin with cyanosis or pale color.
Inhalation: May cause irritation to the respiratory tract with burning pain in the nose and throat. Causes chemical burns to the respiratory tract.
Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal burns. May cause perforation of the digestive tract, swelling of the throat, convulsions, and possible coma. May cause nausea, diarrhea and vomiting.

Signs or Symptoms of Exposure: Nausea, changes in skin or eye to signal exposure.
Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.
Acute Toxicity (Numerical Measures): N/A
Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.

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

13. Disposal Considerations
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:**
- **UN Proper Shipping Name:**
- **Transport Hazard Class(es):**
- **Packing Group Number:**
- **Environmental Hazards (IMDG code):**
  - Marine Pollutan:
- **Transport in Bulk (IBC Code):**
- **Special Transport Precautions:**

### 15. Regulatory Information

- **OSHA:**
- **DOT:**
- **EPA:**
- **CPSC:**
16. Other Information

Revision Date: 12/10/2014

NFPA

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>COR</td>
</tr>
</tbody>
</table>

National Fire Protection Association (USA) NFPA

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>COR</td>
</tr>
</tbody>
</table>

HMIS

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazardous Material Information System HMIS

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>0</td>
</tr>
</tbody>
</table>

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.