SAFETY DATA SHEET: meta-PHOSPHORIC ACID

1. IDENTIFICATION

Product Name: meta-PHOSPHORIC ACID

Synonyms: Vitreous sodium acid metaphosphate

Formula and Formula Weight: Mixture 79.89

Integra numbers beginning with: P379.10

Recommended Use: Commercial/industrial use

Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification: Hazard Category: Hazard Statement:
Acute Toxicity - Oral 4 Harmful if swallowed.
Skin Corrosion/Irritation 1A Causes severe skin burns and eye damage.
Eye Damage/Irritation 1 Causes serious eye damage.

Signal Word: DANGER

Precautionary Statements

Prevention:
- Do not breathe dusts or mists.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves, protective clothing, 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.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a poison center, doctor.
- Specific treatment (see first aid section on this label)
- Wash contaminated clothing before reuse.

Storage
- Store locked up.

Disposal
- Dispose of contents, container in accordance with all governmental regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metaphosphate</td>
<td></td>
<td>10361-03-2</td>
<td>65</td>
</tr>
<tr>
<td>meta-Phosphoric acid</td>
<td></td>
<td>37267-86-0</td>
<td>35</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin Contact: Immediately remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek immediate medical attention.

Ingestion: Do not induce vomiting. If victim is conscious, rinse mouth, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional notes: Symptoms and effects include skin and eye burns and damage; respiratory, gastrointestinal irritation; nausea, vomiting; burns to mouth and throat; cough, shortness of breath; tooth erosion.

5. FIRE-FIGHTING MEASURES
**Physicochemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>0.03 mm Hg @20°C</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Odorless</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>2 for a 3% solution</td>
</tr>
<tr>
<td><strong>Partition Coefficient</strong></td>
<td>n-octanol/water</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>200 °C</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>White or glassy chips or powder</td>
</tr>
<tr>
<td><strong>Melting/Freezing Point</strong></td>
<td>600 °C</td>
</tr>
<tr>
<td><strong>Initial Boiling Point and Boiling Range</strong></td>
<td>600 °C</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Flammable or Explosive</strong></td>
<td>Upper: Not available</td>
</tr>
<tr>
<td><strong>Flammability Limits (% by volume in air)</strong></td>
<td>Lower: Not available</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>0.03 mm Hg @20°C</td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Relative Density</strong></td>
<td>2.0 g/cc</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>meta-Phosphoric acid is slowly soluble in cold water. Sodium metaphosphate is very soluble in water.</td>
</tr>
<tr>
<td><strong>Partition Coefficient</strong></td>
<td>n-octanol/water</td>
</tr>
<tr>
<td><strong>Auto-Ignition Temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Extinguishing Media:** Water spray, carbon dioxide, dry chemical or foam.

**Special Equipment and Precautions:** Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

**Specific Hazards:** None identified

**Hazardous combustion products:** Phosphorus oxides.

### 6. ACCIDENTAL RELEASE MEASURES

**Spill Procedures:** Prevent spread of spill. Wear suitable protective equipment. Sweep or scoop into clean, dry disposal container in a manner that does not generate dusts. Flush spill area with water.

### 7. HANDLING AND STORAGE

**Incompatible Materials:** Incompatible with strong bases. Metals, nitromethane, water

**Storage and Handling:** Store locked up in a cool, dry, well-ventilated corrosive materials storage area away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Minimize exposure to air and light. Protect from moisture.

- Do not breathe dusts or mists.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves, protective clothing, eye protection, face protection.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**OSHA & ACGIH Exposure Limits:**
- Sodium metaphosphate: None identified
- meta-Phosphoric acid: None identified

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep fume and/or dust levels as low as possible.

**Respiratory Protection:** A NIOSH approved respirator with a particulate filter should be worn at all times.

**Skin/Eye Protective Equipment:** Safety goggles, protective clothing and gloves appropriate for the risk of exposure.

Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** White or glassy chips or powder
- **Odor:** Odorless
- **Melting/Freezing Point:** 200 °C
- **Initial Boiling Point and Boiling Range:** 600 °C
- **Auto-Ignition Temperature:** Not available
- **Partition Coefficient:** n-octanol/water
- **Solubility:** meta-Phosphoric acid is slowly soluble in cold water. Sodium metaphosphate is very soluble in water.

### 10. STABILITY AND REACTIVITY

- **Stability:** Stable
- **Reactivity:** No information available
- **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur
- **Conditions to Avoid:** Moisture.
- **Incompatibles:** Incompatible with strong bases. Metals, nitromethane, water
- **Decomposition Products:** Phosphorus oxides.

### 11. TOXICOLOGICAL INFORMATION

**Effects of Over Exposure:**
- **Inhalation:** Inhalation may irritate the nose, throat and upper respiratory tract. May cause cough and shortness of breath.
- **Skin Contact:** Contact may cause irritation or burns.
- **Eye Contact:** Contact may burn or damage the eyes.
- **Ingestion:** Harmful if swallowed. Ingestion may cause nausea, vomiting and gastrointestinal irritation and burns to the mouth and throat.
Chronic Effects: Erosion of teeth may result from prolonged exposure to vapors from aqueous solutions.
Target Organs: None identified
Additional Effects: Those with skin disorders or respiratory conditions may be more susceptible to the effects of this material.
Reproductive Effects: None identified
Carcinogenicity: None identified

Toxicity Data:
- Sodium metaphosphate: LD50 (intraperitoneal, mouse) 803 mg/kg
- meta-Phosphoric acid: No information available

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data: Terrestrial Toxicity Data:
- Sodium metaphosphate: No information available No information available
- meta-Phosphoric acid: No information available No information available

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility in soil: No information available
Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is a regulated material for domestic ground transportation, per CFR Title 49.

- UN Number: UN1759
- Proper Shipping Name: Corrosive solid, nos
- Packing Group: III
- Hazard Class: 8
- Environmental hazards: No information available
- Special precautions: No information available
- Bulk transport: No information available

15. REGULATORY INFORMATION

Sodium metaphosphate is listed in the TSCA inventory.
meta-Phosphoric acid is listed in the TSCA inventory.

16. OTHER INFORMATION

OSHA SDS #: 26105 rev 101 3/31/2015

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****