1 Identification

· Product identifier
· Trade name: Phosphate
· Article number: IC-PP-10M

· Details of the supplier of the safety data sheet
· Manufacturer/Supplier:
  High-Purity Standards
  Address PO Box 41727 Charleston, SC 29423 United States
  Telephone +1-843-767-7900
  Fax +1-843-767-7906
  Website highpuritystandards.com
  Email info@highpuritystandards.com

· Information department: Product safety department
· Emergency telephone number:
  INFOTRAC
  Emergency telephone numbers: 1-800-535-5053
  Other emergency telephone numbers: 1-352-323-3500

2 Hazard(s) identification

· Classification of the substance or mixture
  The product is not classified, according to the Globally Harmonized System (GHS).

· Label elements
· GHS label elements Void
· Hazard pictograms Void
· Signal word Void
· Hazard statements Void
· Classification system:
· NFPA ratings (scale 0 - 4)
  Health = 0
  Fire = 0
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)
  HEALTH Health = 0
  FIRE Fire = 0
  REACTIVITY Reactivity = 0

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 2)
4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: If symptoms persist consult doctor.

- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- Protective Action Criteria for Chemicals

| PAC-1: | 7722-76-1 Ammonium dihydrogenphosphate | 17 mg/m³ |
| PAC-2: | 7722-76-1 Ammonium dihydrogenphosphate | 190 mg/m³ |
| PAC-3: | 7722-76-1 Ammonium dihydrogenphosphate | 1,100 mg/m³ |
Safety Data Sheet
acc. to OSHA HCS

Printing date 08/08/2019 Reviewed on 08/08/2019

Trade name: Phosphate

7 Handling and storage

· Handling:
· Precautions for safe handling: No special measures required.
· Information about protection against explosions and fires: No special measures required.
· Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: None.
· Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
· Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Additional information: The lists that were valid during the creation were used as basis.
· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
· Breathing equipment: Not required.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves:
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· Penetration time of glove material:
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  · Form: Liquid
  · Color: colorless

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Safety Data Sheet
acc. to OSHA HCS

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Reviewed on 08/08/2019

Trade name: Phosphate

(Contd. of page 3)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash point:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure at 20 °C (68 °F):</td>
<td>23 hPa (17.3 mm Hg)</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>1.001 g/cm³ (8.35334 lbs/gal)</td>
</tr>
<tr>
<td>Bulk density:</td>
<td>1,001 kg/m³</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Water:</td>
<td>99.0 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.00 %</td>
</tr>
<tr>
<td>0.0 g/l / 0.00 lb/gal</td>
<td></td>
</tr>
<tr>
<td>Solids content:</td>
<td>1.0 %</td>
</tr>
<tr>
<td>Other information:</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.

(Contd. on page 5)
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    - The product is not subject to classification according to internally approved calculation methods for preparations:
      - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - None of the ingredients is listed.
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    - None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Additional ecological information:
    - General notes: Not hazardous for water.
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.

(Contd. on page 6)
### 14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA: not regulated

- **UN proper shipping name**
  - DOT, ADR, IMDG, IATA: not regulated

- **Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: not regulated

- **Packing group**
  - DOT, ADR, IMDG, IATA: not regulated

- **Environmental hazards**: Not applicable.

- **Special precautions for user**: Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**: Not applicable.

- **UN "Model Regulation"**: not regulated

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Sara

  - **Section 355 (extremely hazardous substances)**:
    None of the ingredients is listed.

  - **Section 313 (Specific toxic chemical listings)**:
    None of the ingredients is listed.

  - **TSCA (Toxic Substances Control Act)**:
    All components have the value ACTIVE.

- **Hazardous Air Pollutants**
  None of the ingredients is listed.

- **Proposition 65**

  - **Chemicals known to cause cancer**:
    None of the ingredients is listed.

  - **Chemicals known to cause reproductive toxicity for females**:
    None of the ingredients is listed.

  - **Chemicals known to cause reproductive toxicity for males**:
    None of the ingredients is listed.
16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:**
  High-Purity Standards  
  Tel: 843-767-7900  
  Fax: 843-767-7906
- **Date of preparation / last revision** 08/08/2019 / -
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit