1 Identification

· Product identifier
  · Trade name: Phosphorus 1000 μg/mL in H2O
  · Article number: IC-KP-M

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    High-Purity Standards
    PO Box 41727 Charleston, SC 29423 United States
    Telephone: +1-843-767-7900
    Fax: +1-843-767-7906
    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.
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:**
    - 7778-77-0 potassium dihydrogenorthophosphate 9.6 mg/m³
  - **PAC-2:**
    - 7778-77-0 potassium dihydrogenorthophosphate 110 mg/m³
  - **PAC-3:**
    - 7778-77-0 potassium dihydrogenorthophosphate 630 mg/m³

(Contd. on page 3)
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
### Odor:
- **Odor**
  - Characteristic

### Odor threshold:
- **Odor threshold**
  - Not determined.

### pH-value:
- **pH-value**
  - Not determined.

### Change in condition:
- **Melting point/Melting range**
  - Undetermined.
- **Boiling point/Boiling range**
  - 100 °C (212 °F)

### Flash point:
- **Flash point**
  - Not applicable.

### Flammability (solid, gaseous):
- **Flammability (solid, gaseous)**
  - Not applicable.

### Decomposition temperature:
- **Decomposition temperature**
  - Not determined.

### Auto igniting:
- **Auto igniting**
  - Product is not selfigniting.

### Danger of explosion:
- **Danger of explosion**
  - Product does not present an explosion hazard.

### Explosion limits:
- **Lower**
  - Not determined.
- **Upper**
  - Not determined.

### Vapor pressure at 20 °C (68 °F):
- **Vapor pressure at 20 °C (68 °F)**
  - 23 hPa (17.3 mm Hg)

### Density at 20 °C (68 °F):
- **Density at 20 °C (68 °F)**
  - 1 g/cm³ (8.345 lbs/gal)

### Bulk density:
- **Bulk density**
  - 1,000 kg/m³

### Relative density:
- **Relative density**
  - Not determined.

### Vapor density:
- **Vapor density**
  - Not determined.

### Evaporation rate:
- **Evaporation rate**
  - Not determined.

### Solubility in / Miscibility with:
- **Water**
  - Not miscible or difficult to mix.

### Partition coefficient (n-octanol/water):
- **Partition coefficient (n-octanol/water)**
  - Not determined.

### Viscosity:
- **Dynamic**
  - Not determined.
- **Kinematic**
  - Not determined.

### Solvent content:
- **Water**
  - 99.9 %
- **VOC content**
  - 0.00 %
  - 0.0 g/l / 0.00 lb/gal

### Solids content:
- **Solids content**
  - 0.0 %

### Other information:
- **Other information**
  - No further relevant information available.

**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.
Trade name: Phosphorus 1000 μg/mL in H2O

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.
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
  - Class: **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.
Trade name: Phosphorus 1000 μg/mL in H2O

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

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.

- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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** 10/03/2019 / -
- **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
  - REL: Permissible Exposure Limit
  - PEL: Permissible Exposure Limit
  - US