1 Identification

- **Product identifier**
  - **Trade name:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
  - **Article number:** 26252-04
  - **CAS Number:** 7778-77-0
  - **EC number:** 231-913-4
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkck@aol.com
    www.emsdiasum.com
  - **Information department:** Product safety department
  - **Emergency telephone number:**
    ChemTrec 1-800-424-9300 Contract CCN7661
    1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - **GHS07**
  - Acute Tox. 4 H302 Harmful if swallowed.
  - Acute Tox. 4 H312 Harmful in contact with skin.
  - Acute Tox. 4 H332 Harmful if inhaled.
- **Label elements**
  - **GHS label elements:** The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**

- **Signal word** Warning
- **Hazard statements**
  Harmful if swallowed, in contact with skin or if inhaled.
  Causes eye irritation.
- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wear protective gloves / protective clothing.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.

(Contd. on page 2)
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

Use only outdoors or in a well-ventilated area.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If eye irritation persists: Get medical advice/attention.
Rinse mouth.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store in a dry place. Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    Health = 2
    Fire = 0
    Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  HEALTH
  Health = 2
  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: Substances
- CAS No. Description
  7778-77-0 potassium dihydrogenorthophosphate
- Identification number(s)
  - EC number: 231-913-4

4 First-aid measures

- Description of first aid measures
  - General information:
    Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact:
    Generally the product does not irritate the skin.
  - After eye contact:
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing:
    If symptoms persist consult doctor.
  - Information for doctor:
    - Most important symptoms and effects, both acute and delayed No further relevant information available.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
  - **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - **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:** Keep receptacle tightly sealed.
- **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:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.

- Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:
  Protective gloves

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 of the glove material. 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.

- Material of gloves
- 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:
  Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
  - Appearance:
    Form: Solid
    Color: Not determined.
    Odor: Characteristic
    Odor threshold: Not determined.
  - pH-value: Not determined.

- Change in condition
  Melting point/Melting range: Undetermined.
  Boiling point/Boiling range: Undetermined.

- Flash point: Not applicable.

- Flammability (solid, gaseous): Not flammable.

- Ignition temperature:
  Decomposition temperature: Not determined.
  Auto igniting: Not determined.

- Danger of explosion: Product does not present an explosion hazard.
## Safety Data Sheet
acc. to OSHA HCS

### Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<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:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>· Density at 20 °C (68 °F):</td>
<td>2.338 g/cm³ (19.511 lbs/gal)</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>Organic solvents:</td>
<td>0.0 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.0 g/l / 0.00 lb/gl</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.
  - **Hazardous decomposition products**: No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect**
  - **on the skin**: No irritant effect.
  - **on the eye**: Irritating effect.
- **Sensitization**: No sensitizing effects known.
- **Additional toxicological information**
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    Substance is not listed.
  - **NTP (National Toxicology Program)**
    Substance is not listed.

(Contd. on page 6)
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

OSHA-Ca (Occupational Safety Health Administration)
Substance is not 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:
      - Water hazard class 1 (Self-assessment): slightly hazardous for water
        Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - 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:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: Void

- UN proper shipping name
  - DOT, ADR, IMDG, IATA: Void

- Transport hazard class(es)
  - DOT, ADR, IMDG, IATA: Void
  - Class: Void

- Packing group
  - DOT, ADR, IMDG, IATA: Void

- 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.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):** Substance is not listed.
    - **Section 313 (Specific toxic chemical listings):** Substance is not listed.
  - **TSCA (Toxic Substances Control Act):** Substance is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
    - **Chemicals known to cause developmental toxicity:** Substance is not listed.
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)** Substance is not listed.
    - **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
  - **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS07

- **Signal word** Warning
- **Hazard statements**
  Harmful if swallowed, in contact with skin or if inhaled.
  Causes eye irritation.
- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wear protective gloves / protective clothing.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.

(Contd. on page 8)
Use only outdoors or in a well-ventilated area.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see on this label).
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If eye irritation persists: Get medical advice/attention.
Rinse mouth.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store in a dry place. Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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.

- **Date of preparation / last revision:** 06/17/2016 / -
- **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
  - 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
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

  · **Trade name:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
  · **Article number:** 26252-04
  · **CAS Number:** 7778-77-0
  · **EC number:** 231-913-4

· **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.

· **Application of the substance / the mixture**
  Laboratory chemicals

· **Details of the supplier of the safety data sheet**

  · **Manufacturer/Supplier:**
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkcck@aol.com
    www.emsdiasum.com

  ProSciTech Pty Ltd
  11 Carlton Street, Kirwan QLD 4817 Australia
  Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
  Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

  Emgrid Australia Pty. Ltd.
  P.O. Box 118
  The Patch VIC 3792
  Australia
  Tel: 03 9752 1785
  Fax: 03 9752 1784
  Website: www.emgrid.com.au

· **Further information obtainable from:**
  Product safety department
· **Emergency telephone number:**
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

2 Hazards identification

· **Classification of the substance or mixture**

  ![GHS07]

  Acute Tox. 4  H302  Harmful if swallowed.
  Acute Tox. 4  H312  Harmful in contact with skin.
  Acute Tox. 4  H332  Harmful if inhaled.
  Eye Irrit. 2  H319  Causes serious eye irritation.

· **Label elements**
  · **GHS label elements**
    The substance is classified and labelled according to the Globally Harmonised System (GHS).
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 17.06.2016  
Revision: 17.06.2016

Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

· Hazard pictograms

GHS07

· Signal word Warning
· Hazard statements
  Harmful if swallowed, in contact with skin or if inhaled.
  Causes serious eye irritation.
· Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves / protective clothing.
  Wear eye protection / face protection.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Specific treatment (see on this label).
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If eye irritation persists: Get medical advice/attention.
  Rinse mouth.
  IF ON SKIN: Wash with plenty of water.
  Take off contaminated clothing and wash it before reuse.
  Store in a dry place. Store in a closed container.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
· Other hazards
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterisation: Substances
· CAS No. Description
  7778-77-0 potassium dihydrogenorthophosphate
· Identification number(s)
· EC number: 231-913-4

4 First aid measures

· Description of first aid measures
· General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation:
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Generally the product does not irritate the skin.
Safety data sheet  
according to 1907/2006/EC, Article 31

Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- 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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
  - Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 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.

7 Handling and storage

- Handling:
- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about fire-and explosion protection: 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: Keep container tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**
  - **Personal protective equipment:**
  - **General protective and hygienic measures:**
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes.
    Avoid contact with the eyes and skin.

- **Respiratory protection:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**

  **Protective gloves**

  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.

- **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:**

  **Tightly sealed goggles**

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### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Solid
      - **Colour:** Not determined.
    - **Odour:** Characteristic
    - **Odour threshold:** Not determined.
    - **pH-value:** Not determined.
  
  - **Change in condition**
    - **Melting point/Melting range:** Undetermined.
    - **Boiling point/Boiling range:** Undetermined.
  
  - **Flash point:** Not applicable.
  
  - **Flammability (solid, gaseous):** Not applicable.
## 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.
  - **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
  - **Skin corrosion/irritation** No irritant effect.
  - **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - 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
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - ADG, ADN, IMDG, IATA: not regulated
- UN proper shipping name
  - ADG, ADN, IMDG, IATA: not regulated
- Transport hazard class(es)
  - ADG, ADN, IMDG, IATA: not regulated
- Packing group
  - ADG, IMDG, IATA: not regulated
- Environmental hazards:
  - Not applicable.
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of Marpol 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**
  - **Australian Inventory of Chemical Substances**
    - Substances is listed.
  - **Standard for the Uniform Scheduling of Medicines and Poisons**
    - Substances is not listed.

- **GHS label elements**
  The substance is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**

- **Signal word** Warning
- **Hazard statements**
  Harmful if swallowed, in contact with skin or if inhaled.
  Causes serious eye irritation.
- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves / protective clothing.
  Wear eye protection / face protection.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Specific treatment (see on this label).
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If eye irritation persists: Get medical advice/attention.
  Rinse mouth.
  IF ON SKIN: Wash with plenty of water.
  Take off contaminated clothing and wash it before reuse.
  Store in a dry place. Store in a closed container.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**
  - **Named dangerous substances** - ANNEX I Substances is not listed.
  - **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.

- **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
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
1 Identification

- **Product identifier**
  - **Trade name:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
  - **Article number:** 26252-04
  - **CAS Number:** 7778-77-0
  - **EC number:** 231-913-4

- **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400 Fax: 215-412-8450
    email: sgkck@aol.com
    www.emsdiasum.com

  - **Information department:** Product safety department

  - **Emergency telephone number:**
    ChemTrec 1-800-424-9300 Contract CCN7661
    1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS07
  
  Acute Toxicity (Dermal) – Category 4 H312 Harmful in contact with skin.

  Acute Toxicity (Inhalation) - Category 4 H332 Harmful if inhaled.

  Eye Irritation - Category 2B H320 Causes eye irritation.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  - GHS07

- **Signal word** Warning

- **Hazard statements**
  Harmful in contact with skin or if inhaled.
  Causes eye irritation.

- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific measures (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Wash contaminated clothing before reuse. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Store in a dry place. Store in a closed container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:

WHMIS-symbols:
D2B - Toxic material causing other toxic effects

Classification system:

NFPA ratings (scale 0 - 4)

Health = 2
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = 2
Fire = 0
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description
7778-77-0 potassium dihydrogenorthophosphate

Identification number(s)
EC number: 231-913-4

4 First-aid measures

Description of first aid measures

General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Generally the product does not irritate the skin.

After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- 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:
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- 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.

7 Handling and storage

- Handling:
  - Precautions for safe handling
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - 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: Keep receptacle tightly sealed.
  - 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: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
Safety Data Sheet
acc. to OSHA HCS

Printing date 06/17/2016
Reviewed on 06/17/2016

Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

(Contd. of page 3)

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.
· Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use
  respiratory protective device that is independent of circulating air.
· Protection of hands:

  Protective gloves

  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.
  · 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:

  Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  · Form: Solid
  · Color: Not determined.
· Odor:
  · Odor: Characteristic
  · Odor threshold: Not determined.
· pH-value:
  · pH-value: Not determined.
· Change in condition
  · Melting point/Melting range: Undetermined.
  · Boiling point/Boiling range: Undetermined.
· Flash point:
  · Flash point: Not applicable.
· Flammability (solid, gaseous):
  · Flammability (solid, gaseous): Not flammable.

(Contd. on page 5)
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Ignition temperature:
  Decomposition temperature: Not determined.
- Auto igniting: Not determined.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
- Vapor pressure: Not determined.
- Density at 20 °C: 2.338 g/cm³
- Relative density Not determined.
- Vapor density Not determined.
- Evaporation rate Not determined.
- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.
  Organic solvents: 0.0 %
- 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.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  Acute toxicity:
  Primary irritant effect:
    on the skin: No irritant effect.
    on the eye: Irritating effect.
  Sensitization: No sensitizing effects known.
- Additional toxicological information:
- Carcinogenic categories
  IARC (International Agency for Research on Cancer)
  Substance is not listed.
Safety Data Sheet
acc. to OSHA HCS

Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

<table>
<thead>
<tr>
<th>12 Ecological information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxicity</strong></td>
</tr>
<tr>
<td>Aquatic toxicity: No further relevant information available.</td>
</tr>
<tr>
<td>Persistence and degradability: No further relevant information available.</td>
</tr>
<tr>
<td>Behavior in environmental systems:</td>
</tr>
<tr>
<td>Bioaccumulative potential: No further relevant information available.</td>
</tr>
<tr>
<td>Mobility in soil: No further relevant information available.</td>
</tr>
<tr>
<td>Additional ecological information:</td>
</tr>
<tr>
<td>General notes:</td>
</tr>
<tr>
<td>Water hazard class 1 (Self-assessment): Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13 Disposal considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste treatment methods:</td>
</tr>
<tr>
<td>Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.</td>
</tr>
<tr>
<td>Uncleaned packagings:</td>
</tr>
<tr>
<td>Recommendation: Disposal must be made according to official regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14 Transport information</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number: Void</td>
</tr>
<tr>
<td>DOT, TDG, ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td>UN proper shipping name: Void</td>
</tr>
<tr>
<td>DOT, TDG, ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td>Transport hazard class(es):</td>
</tr>
<tr>
<td>DOT, TDG, ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td>Class: Void</td>
</tr>
<tr>
<td>Packing group: Void</td>
</tr>
<tr>
<td>DOT, TDG, IMDG, IATA: Void</td>
</tr>
<tr>
<td>Environmental hazards: Not applicable.</td>
</tr>
<tr>
<td>Special precautions for user: Not applicable.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.</td>
</tr>
</tbody>
</table>
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - Section 355 (extremely hazardous substances): Substance is not listed.
    - Section 313 (Specific toxic chemical listings): Substance is not listed.
  - **TSCA (Toxic Substances Control Act):** Substance is listed.
  - **Proposition 65**
    - Chemicals known to cause cancer: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for females: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for males: Substance is not listed.
    - Chemicals known to cause developmental toxicity: Substance is not listed.
  - **Carcinogenic categories**
    - EPA (Environmental Protection Agency) Substance is not listed.
    - TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
    - NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
  - **Canadian substance listings:**
    - Canadian Domestic Substances List (DSL) Substance is listed.
    - Canadian Ingredient Disclosure list (limit 0.1%) Substance is not listed.
    - Canadian Ingredient Disclosure list (limit 1%) Substance is not listed.
  - **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**

GHS07

- **Signal word** Warning
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- **Hazard statements**
  Harmful in contact with skin or if inhaled.
  Causes eye irritation.

- **Precautionary statements**
  Avoid breathing dust/fume/gas/mist/vapours/spray.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Specific measures (see on this label).
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Call a POISON CENTER/doctor if you feel unwell.
  Wash contaminated clothing before reuse.
  If eye irritation persists: Get medical advice/attention.
  IF ON SKIN: Wash with plenty of water.
  Store in a dry place. Store in a closed container.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **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.

- **Date of preparation / last revision** 06/17/2016 /
- **Abbreviations and acronyms:**
  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
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  WHMIS: Workplace Hazardous Materials Information System (Canada)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety  Health
  Acute Toxicity (Dermal) – Category 4: Acute toxicity, Hazard Category 4
  Eye Irritation - Category 2B: Serious eye damage/eye irritation, Hazard Category 2B
SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
· Article number: 26252-04
· CAS Number: 7778-77-0
· EC number: 231-913-4
· 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture Laboratory chemicals

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400  Fax: 215-412-8450
email: sgkcek@aol.com
www.emsdiasum.com

· Further information obtainable from: Product safety department

· 1.4 Emergency telephone number:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms

GHS07

· Signal word Warning
· Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P321 Specific treatment (see on this label).
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

SECTION 3: Composition/information on ingredients

• 3.1 Chemical characterisation: Substances
  • CAS No. Description
    7778-77-0 potassium dihydrogenorthophosphate
  • Identification number(s)
    • EC number: 231-913-4

SECTION 4: First aid measures

• 4.1 Description of first aid measures
  • General information:
    Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  • After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    In case of unconsciousness place patient stably in side position for transportation.
  • After skin contact:
    Generally the product does not irritate the skin.
  • After eye contact:
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  • After swallowing:
    If symptoms persist consult doctor.

• 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

• 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

• 5.1 Extinguishing media
  • Suitable extinguishing agents:
    CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

• 5.2 Special hazards arising from the substance or mixture No further relevant information available.

• 5.3 Advice for firefighters
  • Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Not required.

• 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

• 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

• 6.4 Reference to other sections
  See Section 7 for information on safe handling.
SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about fire - and explosion protection: No special measures required.
- 7.2 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: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
  - Ingredients with limit values that require monitoring at the workplace: Not required.
  - Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing
      Wash hands before breaks and at the end of work.
      Avoid contact with the eyes.
      Avoid contact with the eyes and skin.
    - Respiratory protection:
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
  - Protection of hands:
    Protective gloves

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.
- 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.
**Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0**

**Eye protection:**
- Tightly sealed goggles

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Solid
  - **Colour:** Not determined.
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.

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

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

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

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

- **Self-igniting:** Not determined.

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

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

- **Vapour pressure:** Not determined.

- **Density at 20 °C:** 2.338 g/cm³
  - **Relative density:** Not determined.
  - **Vapour density:** Not determined.
  - **Evaporation rate:** Not determined.

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

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

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

- **Solvent content:**
  - **Organic solvents:** 0.0 %
  - **VOC (EC):** 0.00 %

(Contd. on page 5)
SECTION 10: Stability and reactivity

- 10.1 Reactivity  No further relevant information available.
- 10.2 Chemical stability
- 10.3 Thermal decomposition / conditions to be avoided:  No decomposition if used according to specifications.
- 10.4 Conditions to avoid  No further relevant information available.
- 10.5 Incompatible materials:  No further relevant information available.
- 10.6 Hazardous decomposition products:  No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity  Harmful if swallowed, in contact with skin or if inhaled.
- Primary irritant effect:
- Skin corrosion/irritation  Based on available data, the classification criteria are not met.
- Serious eye damage/irritation  Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation  Based on available data, the classification criteria are not met.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity  Based on available data, the classification criteria are not met.
- Carcinogenicity  Based on available data, the classification criteria are not met.
- Reproductive toxicity  Based on available data, the classification criteria are not met.
- STOT-single exposure  Based on available data, the classification criteria are not met.
- STOT-repeated exposure  Based on available data, the classification criteria are not met.
- Aspiration hazard  Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:  No further relevant information available.
- 12.2 Persistence and degradability  No further relevant information available.
- 12.3 Bioaccumulative potential  No further relevant information available.
- 12.4 Mobility in soil  No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT:  Not applicable.
- vPvB:  Not applicable.
- 12.6 Other adverse effects  No further relevant information available.
Trade name: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
ADR, ADN, IMDG, IATA not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA not regulated

14.4 Packing group
ADR, IMDG, IATA not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of
Marpol and the IBC Code
Not applicable.

UN "Model Regulation": not regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

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
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

1.1 Productidentificatie
- Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
- Artikelnummer: 26252-04
- CAS-nummer: 7778-77-0
- EC-nummer: 231-913-4

1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik
Geen verdere relevante informatie verkrijgbaar.

1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad
- Fabrikant/leverancier:
  Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400  Fax: 215-412-8450
  email: sgkcck@aol.com
  www.emsdiasum.com
- Aurion
  Binnenhaven 5
  6709 PD Wageningen
  The Netherlands
  Tel: 31 317 415094
  Fax: 31 317 415955
  email: info@aurion.nl
- Inlichtingengevende sector: Product safety department
- Telefoonnummer voor noodgevallen:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

2.1 Indeling van de stof of het mengsel
- Indeling overeenkomstig Verordening (EG) nr. 1272/2008

  GHS07

  Acute Tox. 4  H302 Schadelijk bij instikken.
  Acute Tox. 4  H312 Schadelijk bij contact met de huid.
  Acute Tox. 4  H332 Schadelijk bij inademing.

2.2 Etiketteringselementen
- Etikettering overeenkomstig Verordening (EG) nr. 1272/2008
  De stof product is geclassificeerd en geëtiketeerd volgens de CLP-verordening.
- Gevarenpictogrammen

  GHS07
Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

· Signaalwoord Waarschuwing
· Gevarenaanduidingen
  H302+H312+H332 Schadelijk bij inslikken, bij contact met de huid en bij inademing.
· Veiligheidsaanbevelingen
  P261 Inademing van stof/rook/gas/nevel/damp/spuitnevel vermijden.
  P280 Beschermende handschoenen/beschermende kleding/ogebescherming/gelaatsbescherming dragen.
  P321 Specifieke behandeling vereist (zie op dit etiket).
  P301+P312 NA INSLIKKEN: bij onwel voelen een ANTIGIFCENTRUM/arts raadplegen.
  P304+P340 NA INADEMING: de persoon in de frisse lucht brengen en ervoor zorgen dat deze gemakkelijk kan ademen.
  P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

2.3 Andere gevaren
· Resultaten van PBT- en zPzB-beoordeling
  · PBT: Niet bruikbaar.
  · zPzB: Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen
  · CAS-Nr. omschrijving
    7778-77-0 kaliumdihydrogeenorthofosfaat
  · Identificatienummer(s)
  · EC-nummer: 231-913-4

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen
  · Algemene informatie:
    Het is mogelijk dat vergiftigingsymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
  · Na inademen:
  · Na huidcontact:
    Over het algemeen is het produkt niet prikkelend voor de huid
  · Na oogcontact:
    De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
  · Na inslikken:
    Als de klachten niet minderen, een arts raadplegen
· 4.2 Belangrijkste acute en uitgestelde symptomen en effecten
  Geen verdere relevante informatie verkrijgbaar.
· 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling
  Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

· 5.1 Blusmiddelen
  · Geschikte blusmiddelen:
    CO2, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
· 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt
  Geen verdere relevante informatie verkrijgbaar.
**Veiligheidsinformatieblad**

*Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0*

<table>
<thead>
<tr>
<th>Rubriek</th>
<th>Kanttekeningen</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3 Advies voor brandweerlieden</td>
<td>· Speciale beschermende kleding: Ademhalingstoestel aantrekken.</td>
</tr>
</tbody>
</table>

**RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel**

- 6.1 Persoonlijke voorzorgsmaatregelen, bescherende uitrusting en noodprocedures
  - Niet nodig.
- 6.2 Milieuvoorzorgsmaatregelen
  - Niet in de riolering/op de oppervlaktewater/op het grondwater laten terechtkomen.
- 6.3 Insluitings- en reinigingsmethoden en -materiaal:
  - Met vloeistofbindend materiaal (zand, bergmeel, zuurbinde, universele binders, zaagmeel) opnemen.
  - Besmet materiaal zoals afval volgens punt 13 verwijderen.
  - Voor voldoende ventilatie zorgen.
- 6.4 Verwijzing naar andere rubrieken
  - Informatie inzake veilig gebruik - zie hoofdstuk 7.
  - Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
  - Informatie inzake berging - zie hoofdstuk 13.

**RUBRIEK 7: Hantering en opslag**

- 7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel
  - Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
  - Aërosolvorming vermijden.
- 7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten
  - Opslag:
    - Eisen ten opzichte van opslagruimte en tanks: Geen bijzondere eisen.
    - Informatie m.b.t. brand- en ontploffingsgevaar: Geen bijzondere maatregelen noodzakelijk.
- 7.3 Specifiek eindgebruik
  - Geen verdere relevante informatie verkrijgbaar.

**RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming**

- Aanvullende gegevens m.b.t. de inrichting van technische installaties: Geen aanvullende gegevens. Zie 7.
- 8.1 Controleparameters
  - Bestanddelen met grenswaarden die m.b.t. de werkruiume in acht genomen moeten worden: Vervalt.
  - Aanvullende gegevens: Als basis dienden lijsten die bij opstelling geldig waren.
- 8.2 Maatregelen ter beheersing van blootstelling
  - Persoonlijke beschermingsvoorzieningen:
    - Algemene beschermings- en gezondheidsmaatregelen:
      - Verwijderd houden van eet- en drinkwaren.
      - Verontreinigde kleding onmiddellijk uittrekken.
      - Vóór de pauze en aan het einde van werktijd handen wassen.
      - Aanraking met de ogen vermijden.
      - Aanraking met de ogen en de huid vermijden.
  - Ademhalingsbescherming:
    - Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.

*(Vervolg op blz. 4)*
Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31

Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

• **Handbescherming:**

  Veiligheidshandschoenen


• **Handschoenmateriaal**

  De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.

• **Doordringingstijd van het handschoenmateriaal**

  De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

• **Oogbescherming:**

  Nauw aansluitende veiligheidsbril

---

**RUBRIEK 9: Fysische en chemische eigenschappen**

<table>
<thead>
<tr>
<th>9.1 Informatie over fysische en chemische basiseigenschappen</th>
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<table>
<thead>
<tr>
<th>Algemene gegevens</th>
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<th>Voorkomen:</th>
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<th>Vorm:</th>
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| Vast              |

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<tr>
<th>Kleur:</th>
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| Niet bepaald.     |

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<tr>
<th>Reuk:</th>
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| Karakteristiek     |

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<tr>
<th>Geurdrempelwaarde:</th>
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| Niet bepaald.     |

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<tr>
<th>pH-waarde:</th>
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| Niet bepaald.     |

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<tr>
<th>Toestandsverandering</th>
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<tr>
<th>Smeltpunt/smelbereik:</th>
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| Niet bepaald.        |

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<tr>
<th>Kookpunt/kookpuntebereik:</th>
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| Niet bepaald.        |

<table>
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<tr>
<th>Vlampunt:</th>
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| Niet bruikbaar.     |

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<tr>
<th>Ontvlambaarheid (vast, gasvormig):</th>
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| Niet bruikbaar. |

<table>
<thead>
<tr>
<th>Ontstekingstemperatuur:</th>
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| Niet bepaald. |

<table>
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<tr>
<th>Ontbindingstemperatuur:</th>
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| Niet bepaald. |

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<tr>
<th>Zelfonsteking:</th>
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| Niet bepaald. |

<table>
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<tr>
<th>Ontplofingsgevaar:</th>
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| Het produkt is niet ontplofingsgevaarlijk. |

<table>
<thead>
<tr>
<th>Ontplofingsgrenzen:</th>
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<table>
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<tr>
<th>Onderste:</th>
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| Niet bepaald. |

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<tr>
<th>Bovenste:</th>
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| Niet bepaald. |

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<tr>
<th>Dampspanning:</th>
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| Niet bepaald.     |

<table>
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<tr>
<th>Dichtheid bij 20 °C:</th>
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| 2.338 g/cm³        |

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<tr>
<th>Relatieve dichtheid</th>
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| Niet bepaald.     |

<table>
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<tr>
<th>Dampdichtheid</th>
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| Niet bepaald. |

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(Vervolg op blz. 5)
**Veiligheidsinformatieblad**  
volgens 1907/2006/EG, Artikel 31  
**Handelsnaam:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0  

---

**RUBRIEK 10: Stabiliteit en reactiviteit**

- **10.1 Reactiviteit**
  Geen verdere relevante informatie verkrijgbaar.

- **10.2 Chemische stabiliteit**

- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.

- **10.3 Mogelijke gevaarlijke reacties**
  Geen gevaarlijke reacties bekend.

- **10.4 Te vermijden omstandigheden**
  Geen verdere relevante informatie verkrijgbaar.

- **10.5 Chemisch op elkaar inwerkende materialen:**
  Geen verdere relevante informatie verkrijgbaar.

- **10.6 Gevaarlijke ontledingsproducten:**
  Geen gevaarlijke ontbindingsprodukten bekend.

---

**RUBRIEK 11: Toxicologische informatie**

- **11.1 Informatie over toxicologische effecten**
  **Acute toxiciteit**

  Schadelijk bij inslikken, bij contact met de huid en bij inademing.

  - **Primaire aandoening:**
    Huidcorrosie/-irritatie: Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **Ernstig oogletsel/oogirritatie:**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **Sensibilisatie van de luchtwegen/de huid**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**

  - **Mutageniteit in geslachtscellen**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **Kankerverwekkendheid**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **Giftigheid voor de voortplanting**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **STOT bij eenmalige blootstelling**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **STOT bij herhaalde blootstelling**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

  - **Gevaar bij inademing**
    Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

---

**RUBRIEK 12: Ecologische informatie**

- **12.1 Toxiciteit**

  **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.

  **12.2 Persistentie en afbreekbaarheid**
   Geen verdere relevante informatie verkrijgbaar.

  **12.3 Bioaccumulatie**
   Geen verdere relevante informatie verkrijgbaar.

  **12.4 Mobiliteit in de bodem**
   Geen verdere relevante informatie verkrijgbaar.
Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Verdere ecologische informatie:
- Algemene informatie:
  Waterbezwaarlijkheid (NL) 10: Kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken. Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein
  Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- 12.5 Resultaten van PBT- en zPzB-beoordeling
  - PBT: Niet bruikbaar.
  - zPzB: Niet bruikbaar.
- 12.6 Andere schadelijke effecten Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- 13.1 Afvalverwerkingsmethoden
  - Aanbeveling: Mag niet t easamen met huisvuil gestort worden of in de riolering terechtkomen.
  - Niet gereinigde verpakkingen:
  - Aanbeveling: Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- 14.1 VN-nummer
  - ADR, ADN, IMDG, IATA
  - Niet van toepassing
- 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN
  - ADR, ADN, IMDG, IATA
  - Niet van toepassing
- 14.3 Transportgevarenklasse(n)
  - ADR, ADN, IMDG, IATA
  - Klasse
  - Niet van toepassing
- 14.4 Verpakkingsgroep:
  - ADR, IMDG, IATA
  - Niet van toepassing
- 14.5 Milieugeva ren:
  - Niet bruikbaar.
- 14.6 Bijzondere voorzorgen voor de gebruiker
  - Niet bruikbaar.
- 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code
  - Niet bruikbaar.
- VN "Model Regulation":
  - Niet van toepassing

RUBRIEK 15: Regelgeving

- 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel
  - SZW-lijst van kankerverwekkende stoffen
    - De stof is niet aanwezig.
  - SZW-lijst van mutagene stoffen
    - De stof is niet aanwezig.
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid
    - De stof is niet aanwezig.
Handelsnaam: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

(Vervolg van blz. 6)

- NIET-limitatieve lijst van voor de voortplanting gifstige stoffen - Ontwikkeling
  De stof is niet aanwezig.

- NIET-limitatieve lijst van voor de voortplanting gifstige stoffen - Borstvoeding
  De stof is niet aanwezig.

- Richtlijn 2012/18/EU
  - Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I De stof is niet aanwezig.

- Nationale voorschriften:
  - Gevaarklasse v. water: Waterbezwaarlijkheid (NL) 10: Saneringsinspanning A
  - 15.2 Chemischeveiligheidsbeoordeling: Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

- Afkortingen en acroniemen:
  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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4
**RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise**

- **1.1 Identificateur de produit**
  - Nom du produit: **PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0**
  - Code du produit: 26252-04
  - No CAS: 7778-77-0
  - Numéro CE: 231-913-4
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
  Pas d’autres informations importantes disponibles.
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
  - Producteur/fournisseur: Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkcck@aol.com
    www.emsdiasum.com
  - Service chargé des renseignements: Product safety department
  - **1.4 Numéro d’appel d’urgence:**
    ChemTrec 1-800-424-9300 Contract CCN7661
    1-703-527-3887

**RUBRIQUE 2: Identification des dangers**

- **2.1 Classification de la substance ou du mélange**
  - Classification selon le règlement (CE) n° 1272/2008
    ! [GHS07]
    Acute Tox. 4 H302 Nocif en cas d’ingestion.
    Acute Tox. 4 H312 Nocif par contact cutané.
    Acute Tox. 4 H332 Nocif par inhalation.

- **2.2 Éléments d’étiquetage**
  - Étiquetage selon le règlement (CE) n° 1272/2008 La substance est classifiée et étiquetée selon le règlement CLP.
  - Pictogrammes de danger
    ! [GHS07]

- **Mention d’avertissement** Attention
- **Mentions de danger**
  H302+H312+H332 Nocif en cas d’ingestion, de contact cutané ou d’inhalation.
- **Conseils de prudence**
  P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.
  P280 Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
  P321 Traitement spécifique (voir sur cette étiquette).

(suite page 2)
Nom du produit: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

P301+P312 EN CAS D’INGESTION: Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.
P304+P340 EN CAS D’INHALATION: transporter la personne à l’extérieur et la maintenir dans une position où elle peut confortablement respirer.
P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

- 2.3 Autres dangers
  - Résultats des évaluations PBT et vPvB
  - PBT: Non applicable.
  - vPvB: Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

- 3.1 Caractérisation chimique: Substances
  - No CAS Désignation
    7778-77-0 dihydrogénoorthophosphate de potassium
  - Code(s) d'identification
    - Numéro CE: 231-913-4

RUBRIQUE 4: Premiers secours

- 4.1 Description des premiers secours
  - Remarques générales:
    Les symptômes d’intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
  - Après inhalation:
    Donner de l'air frais. Assistance respiratoire si nécessaire. Tenir le malade au chaud. Si les troubles persistent, consulter un médecin.
    En cas d'inconscience, coucher et transporter la personne en position latérale stable.
  - Après contact avec la peau:
    En règle générale, le produit n'irrite pas la peau.
  - Après contact avec les yeux:
    Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
  - Après ingestion:
    Si les troubles persistent, consulter un médecin.
- 4.2 Principaux symptômes et effets, aigus et différés Pas d'autres informations importantes disponibles.
- 4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires
  Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

- 5.1 Moyens d'extinction
  - Moyens d'extinction:
    CO2, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
  - 5.2 Dangers particuliers résultant de la substance ou du mélange
    Pas d'autres informations importantes disponibles.
- 5.3 Conseils aux pompiers
  - Équipement spécial de sécurité: Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- 6.1 Précautions individuelles, équipement de protection et procédures d'urgence Pas nécessaire.
**Fiche de données de sécurité**

**selon 1907/2006/CE, Article 31**

**Nom du produit**: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

### 6.2 Précautions pour la protection de l'environnement:

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

### 6.3 Méthodes et matériel de confinement et de nettoyage:

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Évacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

### 6.4 Référence à d'autres rubriques

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

---

**RUBRIQUE 7: Manipulation et stockage**

### 7.1 Précautions à prendre pour une manipulation sans danger

Veiller à une bonne ventilation/aspiration du poste de travail.

Éviter la formation d'aérosols.

### 7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités

**Stockage:**

- **Exigences concernant les lieux et conteneurs de stockage**: Aucune exigence particulière.
- **Indications concernant le stockage commun**: Pas nécessaire.
- **Autres indications sur les conditions de stockage**: Tenir les emballages hermétiquement fermés.

### 7.3 Utilisation(s) finale(s) particulière(s)

Pas d'autres informations importantes disponibles.

---

**RUBRIQUE 8: Contrôles de l'exposition/protection individuelle**

### 8.1 Paramètres de contrôle

- **Composants présentant des valeurs-seuil à surveiller par poste de travail**: Néant

### 8.2 Contrôles de l'exposition

- **Équipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
  - Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
  - Retirer immédiatement les vêtements souillés ou humectés.
  - Se laver les mains avant les pauses et en fin de travail.
  - Éviter tout contact avec les yeux.
  - Éviter tout contact avec les yeux et avec la peau.

- **Protection respiratoire:**
  - En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

- **Protection des mains:**

  Gants de protection
Nom du produit: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.
A cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· Matériau des gants
Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

· Temps de pénétration du matériau des gants
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· Protection des yeux:
   Lunettes de protection hermétiques

---

**RUBRIQUE 9: Propriétés physiques et chimiques**

- **9.1 Informations sur les propriétés physiques et chimiques essentielles**
- **Indications générales**
  - **Aspect:**
    - Forme: Solide
    - Couleur: Non déterminé.
  - **Odeur:** Caractéristique
  - **Seuil olfactif:** Non déterminé.
  - **valeur du pH:** Non déterminé.

- **Changement d'état**
  - **Point de fusion:** Non déterminé.
  - **Point d'ébullition:** Non déterminé.

- **Point d'éclair**
  - Non applicable.

- **Inflammabilité (solide, gazeux):**
  - Non applicable.

- **Température d'inflammation:**
  - Non déterminé.

- **Température de décomposition:**
  - Non déterminé.

- **Auto-inflammation:**
  - Non déterminé.

- **Danger d'explosion:**
  - Le produit n'est pas explosif.

- **Limites d'explosion:**
  - **Inférieure:** Non déterminé.
  - **Supérieure:** Non déterminé.

- **Pression de vapeur:**
  - Non déterminé.

- **Densité à 20 °C:**
  - 2.338 g/cm³
- **Densité relative**
  - Non déterminé.
- **Densité de vapeur:**
  - Non déterminé.
- **Vitesse d'évaporation**
  - Non déterminé.

- **Solubilité dans/miscibilité avec l’eau:**
  - Pas ou peu miscible

- **Coefficient de partage (n-octanol/eau):**
  - Non déterminé.
Fiche de données de sécurité
selon 1907/2006/CE, Article 31

Nom du produit: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

· Viscosité:
  Dynamique: Non déterminé.
  Cinématique: Non déterminé.

· Teneur en solvants:
  Solvants organiques: 0.0 %
  VOC (CE) 0,00 %

· 9.2 Autres informations
  Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

· 10.1 Réactivité
  Pas d'autres informations importantes disponibles.

· 10.2 Stabilité chimique
· Décomposition thermique/conditions à éviter: Pas de décomposition en cas d'usage conforme.

· 10.3 Possibilité de réactions dangereuses
  Aucune réaction dangereuse connue.

· 10.4 Conditions à éviter
  Pas d'autres informations importantes disponibles.

· 10.5 Matières incompatibles
  Pas d'autres informations importantes disponibles.

· 10.6 Produits de décomposition dangereux
  Pas de produits de décomposition dangereux connus

RUBRIQUE 11: Informations toxicologiques

· 11.1 Informations sur les effets toxicologiques
  · Toxicité aiguë
    Nocif en cas d’ingestion, de contact cutané ou d’inhalation.
  · Effet primaire d’irritation:
  · Corrosion cutanée/irritation cutanée
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Lésions oculaires graves/irritation oculaire
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Sensibilisation respiratoire ou cutanée
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Effets CMR (cancérogène, mutagène et toxique pour la reproduction)
  · Mutagénicité sur les cellules germinales
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Cancérogénicité
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Toxicité pour la reproduction
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Toxicité spécifique pour certains organes cibles - exposition unique
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Toxicité spécifique pour certains organes cibles - exposition répétée
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
  · Danger par aspiration
    Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

· 12.1 Toxicité
  · Toxicité aquatique: Pas d'autres informations importantes disponibles.

· 12.2 Persistance et dégradabilité
  · Persistance: Pas d'autres informations importantes disponibles.

· 12.3 Potentiel de bioaccumulation
  · Potentiel de bioaccumulation: Pas d'autres informations importantes disponibles.

· 12.4 Mobilité dans le sol
  · Mobilité dans le sol: Pas d'autres informations importantes disponibles.
**Nom du produit:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- **Autres indications écologiques:**
- **Indications générales:**
  - Catégorie de pollution des eaux 1 (D) (Classification propre): peu polluant
  - Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **12.5 Résultats des évaluations PBT et VPvB**
  - PBT: Non applicable.
  - VPvB: Non applicable.
- **12.6 Autres effets néfastes** Pas d’autres informations importantes disponibles.

**RUBRIQUE 13: Considérations relatives à l’élimination**

- **13.1 Méthodes de traitement des déchets**
  - **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
  - **Emballages non nettoyés:**
  - **Recommandation:** Evacuation conformément aux prescriptions légales.

**RUBRIQUE 14: Informations relatives au transport**

- **14.1 Numéro ONU**
  - ADR, ADN, IMDG, IATA: néant
- **14.2 Désignation officielle de transport de l’ONU**
  - ADR, ADN, IMDG, IATA: néant
- **14.3 Classe(s) de danger pour le transport**
  - ADR, ADN, IMDG, IATA: néant
- **14.4 Groupe d’emballage**
  - ADR, IMDG, IATA: néant
- **14.5 Dangers pour l’environnement:** Non applicable.
- **14.6 Précautions particulières à prendre par l’utilisateur** Non applicable.
- **14.7 Transport en vrac conformément à l’annexe II de la convention Marpol et au recueil IBC** Non applicable.
  - "Règlement type" de l’ONU: néant

**RUBRIQUE 15: Informations relatives à la réglementation**

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d’environnement**
  - Directive 2012/18/UE
  - Substances dangereuses désignées - ANNEXE I la substance n’est pas comprise
  - **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n’a pas été réalisée.
Nom du produit: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

**RUBRIQUE 16: Autres informations**

Ces indications sont fondées sur l’état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Acronymes et abréviations:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· 1.1 Produktidentifikator
  · Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
  · Artikelnummer: 26252-04
  · CAS-Nummer: 7778-77-0
  · EG-Nummer: 231-913-4
· 1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird
  Keine weiteren relevanten Informationen verfügbar.
· 1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt
  · Hersteller/Lieferant:
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkck@aol.com
    www.emsdiasum.com
  Science Services GmbH
  Unterhachinger Str. 75
  81737 München Germany
  Tel: +49(0)89 18 93 668-0
  safety@scienceservices.de

  24h Giftnotruf Munchen: +49 (0)89 19240
  Toxikologische Abteilung der II. Medizinischen Klinik
  rechts der Isar, Munchen. - www.toxinfo.org
· 1.4 Notrufnummer:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· 2.1 Einstufung des Stoffs oder Gemischs
  · Einstufung gemäß Verordnung (EG) Nr. 1272/2008

![GHS07]

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.
Acute Tox. 4 H312 Gesundheitsschädlich bei Hautkontakt.
Acute Tox. 4 H332 Gesundheitsschädlich bei Einatmen.

· 2.2 Kennzeichnungselemente
  · Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008
  Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Gefahrenpiktogramme

GHS07

- Signalwort Achtung
- Gefahrenhinweise
  H302+H312+H332 Gesundheitsschädlich bei Verschlucken, Hautkontakt oder Einatmen.
- Sicherheitshinweise
  P261 Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.
  P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
  P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
  P301+P312 BEI VERSCHLUCKEN: Bei Unwohlsein GIFTINFORMATIONSZENTRUM/Arzt anrufen.
  P304+P340 BEI EINATMEN: Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen.

- 2.3 Sonstige Gefahren
- Ergebnisse der PBT- und vPvB-Beurteilung
  - PBT: Nicht anwendbar.
  - vPvB: Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- 3.1 Chemische Charakterisierung: Stoffe
  - CAS-Nr. Bezeichnung
    7778-77-0 Kaliumbiphosphat
  - Identifikationsnummer(n)
  - EG-Nummer: 231-913-4

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- 4.1 Beschreibung der Erste-Hilfe-Maßnahmen
- Allgemeine Hinweise:
  Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
- Nach Einatmen:
  Frischluftzufuhr, gegebenenfalls Atemspende, Wärme. Bei anhaltenden Beschwerden Arzt konsultieren.
  Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- Nach Hautkontakt: Im allgemeinen ist das Produkt nicht hautreizend.
- Nach Augenkontakt:
  Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- Nach Verschlucken: Bei anhaltenden Beschwerden Arzt konsultieren.
- 4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen
  Keine weiteren relevanten Informationen verfügbar.
- 4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung
  Keine weiteren relevanten Informationen verfügbar.
ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- 5.1 Löschmittel
- Geeignete Löschmittel:
- 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren
  Keine weiteren relevanten Informationen verfügbar.
- 5.3 Hinweise für die Brandbekämpfung
  Besondere Schutzausrüstung: Atemschutzgerät anlegen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren
  Nicht erforderlich.
- 6.2 Umweltschutzmaßnahmen: Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- 6.3 Methoden und Material für Rückhaltung und Reinigung:
  Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
  Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
  Für ausreichende Lüftung sorgen.
- 6.4 Verweis auf andere Abschnitte
  Informationen zur sicheren Handhabung siehe Abschnitt 7.
  Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
  Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- 7.1 Schutzmaßnahmen zur sicheren Handhabung
  Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
  Aerosolbildung vermeiden.
- Hinweise zum Brand- und Explosionsschutz: Keine besonderen Maßnahmen erforderlich.
- 7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten
- Lagerung:
  Anforderung an Lagerräume und Behälter: Keine besonderen Anforderungen.
  Zusammenlagerungshinweise: Nicht erforderlich.
  Weitere Angaben zu den Lagerbedingungen: Behälter dicht geschlossen halten.
- Lagerklasse:
  Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):
- 7.3 Spezifische Endanwendungen Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- Zusätzliche Hinweise zur Gestaltung technischer Anlagen: Keine weiteren Angaben, siehe Abschnitt 7.
- 8.1 Zu überwachende Parameter
  Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten: Entfällt.
- Zusätzliche Hinweise: Als Grundlage dienten die bei der Erstellung gültigen Listen.
Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- 8.2 Begrenzung und Überwachung der Exposition
- Persönliche Schutzausrüstung:
  - Allgemeine Schutz- und Hygienemaßnahmen:
    - Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
    - Beschmutzte, getränkte Kleidung sofort ausziehen.
    - Vor den Pausen und bei Arbeitende Hände waschen.
    - Berührung mit den Augen vermeiden.
    - Berührung mit den Augen und der Haut vermeiden.
  - Atemschutz:
    - Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.
  - Handschutz:

  Schutzhandschuhe


- Handschuhmaterial
  - Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.
- Durchdringungszeit des Handschuhmaterials
  - Die genaue Durchbruchzeit ist beim Schutzhandschuhersteller zu erfahren und einzuhalten.
- Augenschutz:

  Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

- 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften
- Allgemeine Angaben
- Aussehen:
  - Form: Fest
  - Farbe: Nicht bestimmt.
  - Geruch: Charakteristisch
  - Geruchsschwelle: Nicht bestimmt.
- pH-Wert: Nicht bestimmt.
- Zustandsänderung
  - Schmelzpunkt/Schmelzbereich: Nicht bestimmt.
  - Siedepunkt/Siedebereich: Nicht bestimmt.
- Flammpunkt: Nicht anwendbar.
- Entzündlichkeit (fest, gasförmig): Nicht anwendbar.
Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Zündtemperatur: Nicht bestimmt.
- Zersetzungstemperatur: Nicht bestimmt.
- Selbstzündlichkeit: Nicht bestimmt.
- Explosionsgefahr: Das Produkt ist nicht explosionsgefährlich.
- Explosionsgrenzen: Unterer Wert: Nicht bestimmt.
   Oberer Wert: Nicht bestimmt.
- Dampfdruck: Nicht bestimmt.
- Dichte bei 20 °C: 2.338 g/cm³
- Relative Dichte: Nicht bestimmt.
- Verdampfungsgeschwindigkeit: Nicht bestimmt.
- Löslichkeit in Wasser: Nicht bzw. wenig mischbar.
- Verteilungskoeffizient (n-Octanol/Wasser): Nicht bestimmt.
- Viskosität: Dynamisch: Nicht bestimmt.
   Kinematisch: Nicht bestimmt.
- Lösemittelgehalt: Organische Lösemittel: 0.0 %
  VOC (EU): 0,00 %
- 9.2 Sonstige Angaben: Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- 10.1 Reaktivität: Keine weiteren relevanten Informationen verfügbar.
- 10.2 Chemische Stabilität
  - Thermische Zersetzung / zu vermeidende Bedingungen: Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- 10.3 Möglichkeit gefährlicher Reaktionen: Keine gefährlichen Reaktionen bekannt.
- 10.4 Zu vermeidende Bedingungen: Keine weiteren relevanten Informationen verfügbar.
- 10.5 Unverträgliche Materialien: Keine weiteren relevanten Informationen verfügbar.
- 10.6 Gefährliche Zersetzungsprodukte: Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- 11.1 Angaben zu toxikologischen Wirkungen
  - Akute Toxizität: Gesundheitsschädlich bei Verschlucken, Hautkontakt oder Einatmen.
  - Primäre Reizwirkung: Ätz-/Reizwirkung auf die Haut: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Schwere Augenschädigung/-reizung: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Sensibilisierung der Atemwege/Haut: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - CMR-Wirkungen: Keine CMR-Wirkungen bekannt.
  - Keimzell-Mutagenität: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Karzinogenität: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

<table>
<thead>
<tr>
<th>Reproduktionstoxizität</th>
<th>Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spezifische Zielorgan-Toxizität bei einmaliger Exposition</td>
<td>Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.</td>
</tr>
<tr>
<td>Spezifische Zielorgan-Toxizität bei wiederholter Exposition</td>
<td>Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.</td>
</tr>
<tr>
<td>Aspirationsgefahr</td>
<td>Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.</td>
</tr>
</tbody>
</table>

### ABSCHNITT 12: Umweltbezogene Angaben

- 12.1 Toxizität
- Aquatische Toxizität: Keine weiteren relevanten Informationen verfügbar.
- 12.2 Persistenz und Abbaubarkeit: Keine weiteren relevanten Informationen verfügbar.
- 12.3 Bioakkumulationspotenzial: Keine weiteren relevanten Informationen verfügbar.
- 12.4 Mobilität im Boden: Keine weiteren relevanten Informationen verfügbar.
- 12.5 Allgemeine Hinweise:
  - Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend
    Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
- 12.6 Ergebnisse der PBT- und vPvB-Beurteilung
  - PBT: Nicht anwendbar.
  - vPvB: Nicht anwendbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- 13.1 Verfahren der Abfallbehandlung

  - Ungereinigte Verpackungen:
    - Empfehlung: Entsorgung gemäß den behördlichen Vorschriften.

### ABSCHNITT 14: Angaben zum Transport

- 14.1 UN-Nummer
  - ADR, ADN, IMDG, IATA enstand

- 14.2 Ordnungsgemäße UN-Versandbezeichnung
  - ADR, ADN, IMDG, IATA enstand

- 14.3 Transportgefahrenklassen
  - ADR, ADN, IMDG, IATA enstand

- 14.4 Verpackungsgruppe
  - ADR, IMDG, IATA enstand

- 14.5 Umweltgefahr
  - Nicht anwendbar.

- 14.6 Besondere Vorsichtsmaßnahmen für den Verwender
  - Nicht anwendbar.
Handelsname: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0


UN "Model Regulation": entfällt

ABSCHNITT 15: Rechtsvorschriften

15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch

Richtlinie 2012/18/EU

Namentlich aufgeführte gefährliche Stoffe - ANHANG I Der Stoff ist nicht enthalten.

Nationale Vorschriften:

Wassergefährdungsklasse: WGK 1 (Selbsteinstufung): schwach wassergefährdend.

15.2 Stoffsicherheitsbeurteilung: Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

Abkürzungen und Akronymen:

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
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.06.2016
Revisione: 17.06.2016

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

1.1 Identificatore del prodotto

Denominazione commerciale: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
Articolo numero: 26252-04
Numero CAS: 7778-77-0
Numeri CE: 231-913-4

1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati

Non sono disponibili altre informazioni.

1.3 Informazioni sul fornitore della scheda di dati di sicurezza

Produttore/fornitore:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Societa Italiana Chimici
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com

Informazioni fornite da: Product safety department

1.4 Numero telefonico di emergenza:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

2.1 Classificazione della sostanza o della miscela

Classificazione secondo il regolamento (CE) n. 1272/2008

Acute Tox. 4 H302 Nocivo se ingerito.
Acute Tox. 4 H312 Nocivo per contatto con la pelle.
Acute Tox. 4 H332 Nocivo se inalato.

2.2 Elementi dell’etichetta

Etichettatura secondo il regolamento (CE) n. 1272/2008
La sostanza è classificata ed etichettata conformemente al regolamento CLP.

Pittogrammi di pericolo

Avvertenza Attenzione

(continua a pagina 2)
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.06.2016
Revisione: 17.06.2016

Denominazione commerciale: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

· Indicazioni di pericolo
  H302+H312+H332 Nocivo se ingerito, a contatto con la pelle o se inalato.
· Consigli di prudenza
  P261 Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.
  P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.
  P321 Trattamento specifico (vedere su questa etichetta).
  P301+P312 IN CASO DI INGESTIONE: contattare un CENTRO ANTIVELENI/un medico in caso di malessere.
  P304+P340 IN CASO DI INALAZIONE: trasportare l’infortunato all’aria aperta e mantenerlo a riposo in posizione che favorisca la respirazione.
  P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

· 2.3 Altri pericoli
  · Risultati della valutazione PBT e vPvB
  · PBT: Non applicabile.
  · vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· 3.1 Caratteristiche chimiche: Sostanze
  · Numero CAS
    7778-77-0 diidrogenoortofosfato di potassio
  · Numero/i di identificazione
    · Numeri CE: 231-913-4

SEZIONE 4: Misure di primo soccorso

· 4.1 Descrizione delle misure di primo soccorso
  · Indicazioni generali:
    I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all’incidente.
  · Inalazione:
    Portare in zona ben areata, praticare eventualmente la respirazione artificiale, tenere al caldo. Se i disturbi persistono consultare il medico.
    Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
  · Contatto con la pelle:
    Generalmente il prodotto non è irritante per la pelle.
  · Contatto con gli occhi:
    Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.
  · Ingestione:
    Se il dolore persiste consultare il medico.
  · 4.2 Principali sintomi ed effetti, sia acuti che ritardati
    Non sono disponibili altre informazioni.
  · 4.3 Indicazione dell’eventuale necessità di consultare immediatamente un medico e di trattamenti speciali
    Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

· 5.1 Mezzi di estinzione
  · Mezzi di estinzione idonei:
    CO2, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
  · 5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela
    Non sono disponibili altre informazioni.

(continua a pagina 3)
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.06.2016
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Denominazione commerciale: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

5.3 Raccomandazioni per gli addetti all’estinzione degli incendi
Mezzi protettivi specifici: Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza: Non necessario.
6.2 Precauzioni ambientali: Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
6.3 Metodi e materiali per il contenimento e per la bonifica:
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
Smaltimento del materiale contaminato conformemente al punto 13.
Provvedere ad una sufficiente areazione.
6.4 Riferimento ad altre sezioni
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

7.1 Precauzioni per la manipolazione sicura
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Evitare la formazione di aerosol.
Indicazioni in caso di incendio ed esplosione: Non sono richiesti provvedimenti particolari.
7.2 Condizioni per lo stoccaggio sicuro, comprese e ventuali incompatibilità
Stoccaggio:
Requisiti dei magazzini e dei recipienti: Non sono richiesti requisiti particolari.
Indicazioni sullo stoccaggio misto: Non necessario.
Ulteriori indicazioni relative alle condizioni di immagazzinamento: Mantenere i recipienti ermeticamente chiusi.
7.3 Usi finali particolari Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell’esposizione/protezione individuale

Ulteriori indicazioni sulla struttura di impianti tecnici: Nessun dato ulteriore, vedere punto 7.
8.1 Parametri di controllo
Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro: Non Necessario.
Ulteriori indicazioni: Le liste valide alla data di compilazione sono state usate come base.
8.2 Controlli dell’esposizione
Mezzi protettivi individuali:
Norme generali protettive e di igiene del lavoro:
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell’intervallo o a lavoro terminato.
Evitare il contatto con gli occhi.
Evitare il contatto con gli occhi e la pelle.
Maschera protettiva:
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l’autorespiratore.

(continua a pagina 4)
**Scheda di dati di sicurezza**
ai sensi del regolamento 1907/2006/CE, Articolo 31

**Denominazione commerciale:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

(Segue da pagina 3)

**· Guanti protettivi:**

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/la sostanza/la formulazione. A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto/la formulazione/la miscela di sostanze chimiche. Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

**· Materiale dei guanti**
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

**· Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

**· Occhiali protettivi:**

Occhiali protettivi a tenuta

---

**SEZIONE 9: Proprietà fisiche e chimiche**

<table>
<thead>
<tr>
<th>9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali</th>
<th>Indicazioni generali</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>· Aspetto:</strong></td>
<td><strong>Forma:</strong> Solido</td>
</tr>
<tr>
<td><strong>Colore:</strong></td>
<td>Non definito.</td>
</tr>
<tr>
<td><strong>Odore:</strong></td>
<td>Caratteristico</td>
</tr>
<tr>
<td><strong>Soglia olfattiva:</strong></td>
<td>Non definito.</td>
</tr>
<tr>
<td><strong>valori di pH:</strong></td>
<td>Non definito.</td>
</tr>
</tbody>
</table>

| **· Cambiamento di stato** |
| **Temperatura di fusione/ambito di fusione:** | Non definito. |
| **Temperatura di ebollizione/ambito di ebollizione:** | Non definito. |

| **· Punto di infiammabilità:** | Non applicabile. |
| **· Infiammabilità (solido, gassoso):** | Non applicabile. |
| **· Temperatura di accensione:** |
| **Temperatura di decomposizione:** | Non definito. |
| **· Autoaccensione:** | Non definito. |
| **· Pericolo di esplosione:** | Prodotto non esplosivo. |
| **· Limiti di infiammabilità:** |
| **Inferiore:** | Non definito. |
| **Superiore:** | Non definito. |
| **· Tensione di vapore:** | Non definito. |
| **· Densità a 20 °C:** | 2.338 g/cm³ |
| **· Densità relativa:** | Non definito. |

(continua a pagina 5)
Denominazione commerciale: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Densità del vapore: Non definito.
- Velocità di evaporazione: Non definito.
- Solubilità in/Miscibilità con acqua: Poco e/o non miscibile.
- Coefficiente di distribuzione (n-Octanol/acqua): Non definito.
- Viscosità:
  - Dinamica: Non definito.
  - Cinematica: Non definito.
- Tenore del solvente:
  - Solventi organici: 0.0 %
  - VOC (CE): 0.00 %
- 9.2 Altre informazioni: Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- 10.1 Reattività: Non sono disponibili altre informazioni.
- 10.2 Stabilità chimica
- 10.3 Possibilità di reazioni pericolose: Non sono note reazioni pericolose.
- 10.4 Condizioni da evitare: Non sono disponibili altre informazioni.
- 10.5 Materiali incompatibili: Non sono disponibili altre informazioni.
- 10.6 Prodotti di decomposizione pericolosi: Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- 11.1 Informazioni sugli effetti tossicologici
- Tossicità acuta: Nocivo se ingerito, a contatto con la pelle o se inalato.
- Irritabilità primaria:
  - Corrosione/irritazione cutanea: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
  - Lesioni oculari gravi/irritazioni oculari gravi: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Sensibilizzazione respiratoria o cutanea: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)
  - Mutagenicità delle cellule germinali: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Cancerogenicità: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Tossicità per la riproduzione: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Tossicità specifica per organi bersaglio (STOT) - esposizione singola: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- Pericolo in caso di aspirazione: Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

(continua a pagina 6)
SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
  - Tossicità acquatica: Non sono disponibili altre informazioni.
  - **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
  - **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
  - **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
  - Ulteriori indicazioni in materia ambientale:
    - Ulteriori indicazioni:
      - Pericolosità per le acque classe 1 (D) (Autoclassificazione): poco pericoloso
      - Non immettere nelle acque freatiche, nei corsi d’acqua o nelle fognature non diluito o in grandi quantità.
  - **12.5 Risultati della valutazione PBT e vPvB**
    - PBT: Non applicabile.
    - vPvB: Non applicabile.
  - **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
  - Consigli: Non smaltire il prodotto insieme ai rifiuti domestici. Non immettere nelle fognature.
  - Imballaggi non puliti:
    - Consigli: Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

- **14.1 Numero ONU**
  - ADR, ADN, IMDG, IATA: non applicabile
- **14.2 Nome di spedizione dell’ONU**
  - ADR, ADN, IMDG, IATA: non applicabile
- **14.3 Classi di pericolo connesso al trasporto**
  - ADR, ADN, IMDG, IATA: non applicabile
- **14.4 Gruppo di imballaggio**
  - ADR, IMDG, IATA: non applicabile
- **14.5 Pericoli per l'ambiente:**
  - Non applicabile.
- **14.6 Precauzioni speciali per gli utilizzatori**
  - Non applicabile.
- **14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC**
  - Non applicabile.
- **UN "Model Regulation"**:
  - Non applicabile.
SEZIONE 15: Informazioni sulla regolamentazione

- 15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela
- Direttiva 2012/18/UE
- Sostanze pericolose specificate - ALLEGATO I La sostanza non è contenuta
- 15.2 Valutazione della sicurezza chimica: Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

- Abbreviazioni e acronimi:
  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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4
1 화학제품과 회사에 관한 정보

- 제품 식별
- 제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
- 상품번호: 26252-04
- CAS-번호: 7778-77-0
- EC 의번호: 231-913-4
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험 실화 학품

안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400  Fax: 215-412-8450
e-mail: sgkcek@aol.com
www.emsdiasum.com
Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호: ChemTrec 1-800-424-9300 Contract  CCN7661
1-703-527-3887

2 유해성.위험성

- 순물질 또는 혼합물의 분류

![유해성 상표]

심한 눈 손상/자극성 구분2 H319 눈에 심한 자극을 일으킴

- 라벨표기 요소
- GHS 라벨 요소
본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- 그림문자

GHS07

- 신호어 경고
- 유해 위험 문구
눈에 심한 자극을 일으킴
- 예방조치 문구
(보호장갑/보호의 보안경/안면보호구)를(을) 착용하시오.
취급 후에는 취급 부위를 철저히 씻으십시오.

(2 쪽에계속)
제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

3 구성성분의 명칭 및 함유량

- 화학적 특성: 화학물질
- CAS-번호 표시: 7778-77-0 potassium dihydrogenorthophosphate
- 식별 번호: EC 의번호: 231-913-4

4 응급조치 요령

- 응급조치요령 내용
- 임반적 정보: 중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48시간 동안은 의료진의 관찰을 받아야 한다.
- 흡입했을 때: 신선한 공기를 쉬고, 필요할 경우에는 산 소호흡기의 도움을 받는다. 환자를 따뜻하게 하고, 중상이 지속될 경우에는 의료진의 도움을 구한다.
- 피부에 접촉했을 때: 일반적으로 이제품은 피부에 자극적이지 않다.
- 눈에 들어갔을 때: 화학물질에 눈을 끼얹은 경우, 안전한 자세에서 환자戽운반한다.
- 먹었을 때: 중상이 지속될 경우에는 의사와 상담한다.
- 기타 의사의 주의사항: 가장 중요한 급반응 증상 및 영향: 추가적인 정보가 존재하지 않습니다.
- 특정적인 의료조치 및 특별조치가 필요함을 시사하는 증후: 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- 소화제
  - 적절한 소화제: 이산화 탄소, 탄화수소, 화학적 소독제
  - 본 화학물질이나 혈액에서 발생하는 특별 유해성: 추가적인 정보가 존재하지 않습니다.
  - 소방관에 대한 주의사항: 화재 진압 시, 천연생물이나 화학물질에 보호복 및 예방조치: 화학물질 보호장비설치.

6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급조치 절차 필요없음.
- 환경 관련 예방조치: 하수도망/해수면위의물/지하하수로로도달하지않게한다.
- 밀폐 및 정화 방법과 소재: 액체가 혼합될 물질(물, 액상, 가스) 결합물, 일반 결합물, 톡발에 흡입되지 않도록 한다.
제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

<table>
<thead>
<tr>
<th>항목</th>
<th>내용</th>
</tr>
</thead>
<tbody>
<tr>
<td>항목 13에 따라 오염된 물질을 쓰레기로 처분한다.</td>
<td>충분한 환기가 되도록 한다.</td>
</tr>
<tr>
<td>타 석천 참조</td>
<td>안전 관리에 대한 정보는 제7 장을 참고하시오.</td>
</tr>
<tr>
<td>개인 보호 장비에 대한 정보는 제8 장을 참고하시오.</td>
<td>쓰레기 처리에 대한 정보는 제13 장을 참고하시오.</td>
</tr>
</tbody>
</table>

7 취급 및 저장방법

취급:
- 안전 취급을 위한 예방조치: 작업장에서는 통풍이 잘되고/습기제거가 잘되게 주의한다. 연무질이 형성되는 것을 피한다.
- 화재 및 특별 사고 예방대책에 관한 정보: 특별한 조치가 필요없음.
- 흡합위험성 등 안전 저장 조건
- 보관:
  - 안전한 저장 방법: 특별한 요구사항이 없음.
  - 하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음.
  - 보관 조건에 관한 추가적인 정보: 용기를 세지 않게 밀폐한 채보관한다.
  - 구체적 조절 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 철단시설 디자인에 대한 추가정보: 더 이상의 자료는 없음. 항목 7을 참고하시오.
- 통제 변수
- 화학물질의 노출기준, 생물학적 노출기준 등: 생략
- 추가 정보: 제조할 당시에 유 효한 목록을 기초로 사용했다.
- 노출 통제
- 개인보호구
- 일반적보호조치 및 위생조치: 식료품, 음료수와 사료로부터 멀리 벌어서 넓은 데서 식사한다. 더러워지거나 음료수 가루로 옷은 손은 무시한다. 화학 물질이 적절한 곳에서 작업이 끝나고야야 손을 써야 한다. 눈과 피부의 접촉은 피한다. 눈과 피부의 접촉은 피한다.
- 호흡기 보호: 단 시간 또는 경미한 오염의 경우에는 호흡여과 기를 사용한다. 심각한 또는 장기적 노출시에는 호흡보호장비를 사용한다.
- 손 보호: 보호용 장갑

장갑재질은 체크 / 원료 / 조제품투과시키지 않아야하고, 내구성이 있어야한다. 테스트를 하지 않았기 때문에 제품 / 제조 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다. 투과 시간, 접촉 용과 저장용을 고려해서 장갑 재료를 선택한다. 장갑의 사용: 적합한 장갑의 선정은 재질이 아닌지라 품질기준의 차이로 고려하여 사용해야 하고 제조업자에 따라서도 다르게 결정되어야 한다. 장 갑 재료의 투과시간 적합한 관통시간은 보호장갑제조자에 의하여 인지되고, 준수되어야한다.
안전지침서
제31조의 1907/2006/EC에 따라

제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- 눈 보호:
  괴조이눈보안경

9 물리화학적 특성

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<td>특발위험:</td>
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<td>아래로: 알맞지않다.</td>
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<td>밀도와의의 20 ℃: 2.338 g/cm³</td>
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<tr>
<td>용매내용물의 응성용매: 0.0 %</td>
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<tr>
<td>유기음매: 0.00 %</td>
</tr>
</tbody>
</table>

(3 복제본계속)
제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- 기타 정보
  추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성: 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
  - 화학적 안정성 및 유해 반응의 가능성 / 피해가 할 조건: 규정에 따라 사용할 경우 유해함이 없음.
  - 유해 반응 가능성이 위험한 반응으로는 알려지지 않았음.
  - 환경 급지 물질: 추가적인 정보가 존재하지 않습니다.
  - 유해 화학 물질: 위험성을 띠는 화합물은 알려지지 않았음.

11 특성에 관한 정보

- 독성학적 영향에 대한 정보
  - 급성 특성:
  - 일차적 자극 효과:
  - 피부 부식성 또는 자극성: 무자극
  - 심한 눈 손상 또는 자극성: 자극
  - 감각화: 민감한 영향이 없는 것으로 알려져 있음.

12 환경에 미치는 영향

- 독성
  - 수생특성: 추가적인 정보가 존재하지 않습니다.
  - 지속성 및 분해성: 추가적인 정보가 존재하지 않습니다.
  - 환경 시스템에서의 행동:
    - 생물농축 잠재성: 추가적인 정보가 존재하지 않습니다.
    - 생물농축 잠재성: 추가적인 정보가 존재하지 않습니다.
    - 추가적인 생태학 정보:
      - 일반 특성:
        - 수질오염등급 1 (자체동급분류): 약하게 수질오염이 된다.
        - PBT(장기적, 생물농축성, 독성 물질) 및 vPvB(고 전류성, 고 생물농축성 물질) 평가 결과
          - PBT(장기적, 생물농축성, 독성 물질): 해당사항 없음.
          - vPvB(고 전류성, 고 생물농축성 물질): 해당사항 없음.

13 폐기시 주의사항

- 폐기물 처리 방법
  - 권고: 생활쓰레기와 함께 처리되어야 합니다. 하수도로 유입되어서는 안 됩니다.
- 비위생적 포장
  - 권고: 당국의 지침에 의한 쓰레기 처리.
제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

**14 운송에 필요한 정보**

| · 유엔 번호 | ADR, ADN, IMDG, IATA | 누락된다 |
| · UN 적정 선적명 | ADR, ADN, IMDG, IATA | 누락된다 |
| · 교통 위험 클래스 | ADR, ADN, IMDG, IATA | 누락된다 |
| · 운송 등급 | ADR, IMDG, IATA | 누락된다 |
| · 환경적 유해물질 | 해당사항 없음. |
| · 이용자 특별 예방조치 | 해당사항 없음. |
| · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크 운송 | 해당사항 없음. |
| · UN "모범 규제": | 누락된다 |

**15 법적 규제현황**

- 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률
- Korean Existing Chemical Inventory
  - 7778-77-0 potassium dihydrogenorthophosphate
  - KE-28622
- GHS 라벨 요소
  - 본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- 그림문자
  - GHS07
  - 신호어 경고
  - 유해/위험 문구
    - 눈에 심한 자극을 일으킴
  - 예방조치 문구
    - (보호장갑: 보호의 보안경: 안면보호구)를(을) 착용하시오.
    - 취급 후에는 취급 부위를 철저히 씻으십시오.
    - 눈에 묻으면 몇 분간 물로 씻어내십시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으십시오.
    - 눈에 자극이 지속되면 의학적인 조치 조언을 구하시오.
    - 건초한 장소에 보관하시오. 면봉이 있는 용기에 보관하시오.
    - 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
    - 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

(7쪽에계속)
제품명: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

16 그 밖의 참고사항

이보고는 우리지식에 대한 오늘날의 상황에 대하여 평가하고 있다. 하지만 이 보고서는 생산특성에 관한 보증을 기술하지 않았으며, 계약적인 법률관계에 기반을 두고있지도 않다.

- 최초 작성일자: 2016.06.17
- 개정 횟수 및 최종 개정일자: 1 / 2016.06.17
- 약어와 두문자어:
  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
  IATA: International Air Transport Association
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative

심한 눈 손상/자극성 구분 2: Serious eye damage/eye irritation, Hazard Category 2
**SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa**

- **1.1 Identificador del producto**
  - Nombre comercial: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0
  - Número del artículo: 26252-04
  - Número CAS: 7778-77-0
  - Número CE: 231-913-4

- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**
  No existen más datos relevantes disponibles.

- **1.3 Datos del proveedor de la ficha de datos de seguridad**
  - Fabricante/distribuidor: Electron Microscopy Sciences
  - 1560 Industry Road
  - USA-Hatfield, PA 19440
  - Tel: 215-412-8400  Fax: 215-412-8450
  - email: sgkcck@aol.com
  - www.emsdiasum.com
  - Anname
  - C/ Perez Galdos no. 2
  - 28693 Quijorna
  - Madrid, Spain
  - Tel: +34.91.816.89.50
  - Fax: +34.91.816.85.94
  - email: ventas@aname.es
  - Área de información: Product safety department

- **1.4 Teléfono de emergencia:**
  - ChemTrec 1-800-424-9300 Contract  CCN7661
  - 1-703-527-3887

**SECCIÓN 2: Identificación de los peligros**

- **2.1 Clasificación de la sustancia o de la mezcla**
  - Clasificación con arreglo al Reglamento (CE) n° 1272/2008

  ![GHS07](image)

  Acute Tox. 4  H302  Nocivo en caso de ingestión.
  Acute Tox. 4  H312  Nocivo en contacto con la piel.
  Acute Tox. 4  H332  Nocivo en caso de inhalación.

- **2.2 Elementos de la etiqueta**
  - Etiquetado con arreglo al Reglamento (CE) n° 1272/2008
    - La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.
  - Pictogramas de peligro

![GHS07](image)

( se continua en página 2 )
SECCIÓN 3: Composición/información sobre los componentes

- 3.1 Caracterización química: Sustancias
- Denominación N° CAS
  7778-77-0 dihidrogenoortofosfato de potasio
- Número(s) de identificación
  - Número CE: 231-913-4

SECCIÓN 4: Primeros auxilios

- 4.1 Descripción de los primeros auxilios
- Instrucciones generales:
  Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.
- En caso de inhalación del producto:
  Suministrar aire fresco; eventualmente hacer respiración artificial, calor. Si los trastornos persisten, consultar al médico.
  Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
- En caso de contacto con la piel:
  Por regla general, el producto no irrita la piel.
- En caso de con los ojos:
  Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.
- En caso de ingestión:
  Consultar un médico si los trastornos persisten.
- 4.2 Principales síntomas y efectos, agudos y retardados: No existen más datos relevantes disponibles.
- 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente: No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- 5.1 Medios de extinción
- Sustancias extintoras apropiadas:
  CO2, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
**Nombre comercial:** PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
  
  **Equipo especial de protección:** Colocarse la protección respiratoria.

**SECCIÓN 6: Medidas en caso de vertido accidental**

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:**
  
  Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
  
  Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín). Desechar el material contaminado como vertido según item 13.
  
  Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**
  
  Ver capítulo 7 para mayor información sobre una manipulación segura.
  Ver capítulo 8 para mayor información sobre el equipo personal de protección.
  
  Para mayor información sobre cómo desechar el producto, ver capítulo 13.

**SECCIÓN 7: Manipulación y almacenamiento**

- **7.1 Precauciones para una manipulación segura**
  
  Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
  
  Evitar la formación de aerosoles.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
  
  **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
  
  Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

**SECCIÓN 8: Controles de exposición/protección individual**

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
  
  Sin datos adicionales, ver punto 7.
- **8.1 Parámetros de control**
- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:** Nulo.
- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.
- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
  
  Mantener alejado de alimentos, bebidas y alimentos para animales.
  
  Quitar de inmediato la ropa ensuciada o impregnada.
  
  Lavarse las manos antes de las pausas y al final del trabajo.
  
  Evitar el contacto con los ojos.
  
  Evitar el contacto con los ojos y la piel.
- **Protección respiratoria:**
  
  Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.
Nombre comercial: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Protección de manos:

  Guantes de protección

  El material del guante deberá ser impermeable y resistente al producto / substancia / preparado.
  Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de substancias químicas.
  Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

- Material de los guantes

  La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.

- Tiempo de penetración del material de los guantes

  El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

- Protección de ojos:

  Gafas de protección herméticas

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SECCIÓN 9: Propiedades físicas y químicas

- 9.1 Información sobre propiedades físicas y químicas básicas

  - Datos generales
    - Aspecto:
      - Forma: Sólido
      - Color: No determinado.
      - Olor: Característico
      - Umbral olfativo: No determinado.
  - Valor pH: No determinado.
  - Cambio de estado
    - Punto de fusión / campo de fusión: Indeterminado.
    - Punto de ebullición / campo de ebullición: Indeterminado.
  - Punto de inflamación: No aplicable.
  - Inflamabilidad (sólido, gaseiforme): No aplicable.
  - Temperatura de ignición:
    - Temperatura de descomposición: No determinado.
  - Autoinflamabilidad: No determinado.
  - Peligro de explosión: El producto no es explosivo.
  - Límites de explosión:
    - Inferior: No determinado.
    - Superior: No determinado.
  - Presión de vapor: No determinado.
  - Densidad a 20 °C: 2.338 g/cm³
  - Densidad relativa: No determinado.

( se continua en página 5 )
Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

Nombre comercial: PHOSPHATE BUFFER, 0.1M, pH 6.8-7.0

- Densidad de vapor: No determinado.
- Velocidad de evaporación: No determinado.
- Solubilidad en / miscibilidad con agua: Poco o no mezclable.
- Coeficiente de reparto (n-octanol/agua): No determinado.
- Viscosidad:
  - Dinámica: No determinado.
  - Cinemática: No determinado.
- Concentración del disolvente:
  - Disolventes orgánicos: 0.0 %
  - VOC (CE): 0.00 %
- 9.2 Otros datos: No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- 10.1 Reactividad: No existen más datos relevantes disponibles.
- 10.2 Estabilidad química
- 10.3 Descomposición térmica / condiciones que deben evitarse: No se descompone al emplearse adecuadamente.
- 10.4 Condiciones que deben evitarse: No existen más datos relevantes disponibles.
- 10.5 Materiales incompatibles: No existen más datos relevantes disponibles.
- 10.6 Productos de descomposición peligrosos: No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- 11.1 Información sobre los efectos toxicológicos
  - Toxicidad aguda
    Nocivo en caso de ingestión, contacto con la piel o inhalación.
  - Efecto estimulante primario:
  - Corrosión o irritación cutáneas: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Lesiones o irritación ocular graves: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Sensibilización respiratoria o cutánea: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)
    - Mutagenicidad en células germinales: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
    - Carcinogenicidad: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
    - Toxicidad para la reproducción: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Toxicidad específica en determinados órganos (STOT) – exposición única
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Toxicidad específica en determinados órganos (STOT) – exposición repetida
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Peligro de aspiración: A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

( se continua en página 6 )
### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
  - **Toxicidad acuática:** No existen más datos relevantes disponibles.
  - **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
  - **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
  - **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
  - **Indicaciones medioambientales adicionales:**
    - **Indicaciones generales:**
      - Nivel de riesgo para el agua 1 (autoclasificación): escasamente peligroso para el agua
      - En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
  - **12.5 Resultados de la valoración PBT y mPmB**
    - **PBT:** No aplicable.
    - **mPmB:** No aplicable.
  - **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
  - **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
  - **Embalajes sin limpiar:**
    - **Recomendación:** Eliminar conforme a las disposiciones oficiales.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
  - **ADR, ADN, IMDG, IATA** suprimido
- **14.2 Designación oficial de transporte de las Naciones Unidas**
  - **ADR, ADN, IMDG, IATA** suprimido
- **14.3 Clase(s) de peligro para el transporte**
  - **ADR, ADN, IMDG, IATA** suprimido
- **14.4 Grupo de embalaje**
  - **ADR, IMDG, IATA** suprimido
- **14.5 Peligros para el medio ambiente:** No aplicable.
- **14.6 Precauciones particulares para los usuarios** No aplicable.
- **14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC**
  - **No aplicable.**
- **"Reglamentación Modelo" de la UNECE:** suprimido
SECCIÓN 15: Información reglamentaria

· 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla
· Directiva 2012/18/UE
· Sustancias peligrosas nominadas - ANEXO I No contiene la sustancia.
· 15.2 Evaluación de la seguridad química: Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contratual.

· Abreviaturas y acrónimos:
  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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4