1. Identification

Product identifier

Product Name
Buffer Powder Pillows pH 7.00 ± 0.02 @ 25°C

Other means of identification

Product Code(s)
2227066

Recommended use of the chemical and restrictions on use

Recommended Use
Laboratory reagent. Buffer.

Details of the supplier of the safety data sheet

Manufacturer Address
Hach Company P.O.Box 389  Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

Emergency Telephone
+1(303) 623-5716 - 24 Hour Service

2. Hazards identification

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 5 - (H303)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2 - (H315)</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A - (H319)</td>
</tr>
</tbody>
</table>

Label elements

Signal word  - Warning

Hazard statements
H303 - May be harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Exclamation mark

Precautionary statements
P312 - Call a POISON CENTER or doctor if you feel unwell
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P332 + P313 - IF ON SKIN: Wash with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

Other Hazards Known
Not applicable

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Synonyms</th>
<th>Percent Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>7558-79-4</td>
<td>No information available</td>
<td>50 - 60%</td>
<td></td>
</tr>
<tr>
<td>Phosphoric acid, potassium salt (1:1)</td>
<td>7778-77-0</td>
<td>No information available</td>
<td>40 - 50%</td>
<td></td>
</tr>
<tr>
<td>2,4-Dinitrophenol</td>
<td>51-28-5</td>
<td>No information available</td>
<td>&lt;1%</td>
<td></td>
</tr>
</tbody>
</table>

4. First aid measures

Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.

Inhalation
Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

Skin contact
Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion
Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider
Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms
Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.
5. Fire-fighting measures

| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Specific hazards arising from the chemical | No information available. |
| Hazardous combustion products | Phosphorus oxides. |

**Explosion data**
- Sensitivity to mechanical impact: None.
- Sensitivity to static discharge: None.

**Special protective actions for fire-fighters**
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

| Personal precautions | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. |
| Other information | Refer to protective measures listed in Sections 7 and 8. |

**Environmental precautions**

| Environmental precautions | Prevent further leakage or spillage if safe to do so. |

**Methods and material for containment and cleaning up**

| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers. |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |

7. Handling and storage

**Precautions for safe handling**

| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. |

**Conditions for safe storage, including any incompatibilities**

| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. |

8. Exposure controls/personal protection
Control parameters

Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
If splashes are likely to occur, wear safety glasses with side-shields.

Hand protection
Wear suitable gloves. Impervious gloves.

Skin and body protection
Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations
Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>powder</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>light yellow</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7</td>
<td>15.8% Solution</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>~ 160 °C / 320 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Specific gravity (water = 1 / air = 1)</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>log $K_{ow}$ ~ 0</td>
<td></td>
</tr>
<tr>
<td>Soil Organic Carbon-Water Partition Coefficient</td>
<td>log $K_{oc}$ ~ 0</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
Dynamic viscosity: Not applicable
Kinematic viscosity: Not applicable

Solubility(ies)

Water solubility

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>

Solubility in other solvents

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Solubility classification</th>
<th>Solubility</th>
<th>Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>None reported</td>
<td>No information available</td>
<td>No data available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Other Information

Metal Corrosivity

- Steel Corrosion Rate: Not applicable
- Aluminum Corrosion Rate: Not applicable

Volatile Organic Compounds (VOC) Content

Not applicable

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Volatile organic compounds (VOC) content</th>
<th>CAA (Clean Air Act)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>7558-79-4</td>
<td>No data available</td>
<td>-</td>
</tr>
<tr>
<td>Phosphoric acid, potassium salt (1:1)</td>
<td>7778-77-0</td>
<td>No data available</td>
<td>-</td>
</tr>
<tr>
<td>2,4-Dinitrophenol</td>
<td>51-28-5</td>
<td>No data available</td>
<td>X</td>
</tr>
</tbody>
</table>

Explosive properties

- Upper explosion limit: No data available
- Lower explosion limit: No data available

Flammable properties

- Flash point: Not applicable

- Flammability Limit in Air
  - Upper flammability limit: No data available
  - Lower flammability limit: No data available

Oxidizing properties

- No data available.

Bulk density

- No data available.

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.
Conditions to avoid
None known based on information supplied.

Incompatible materials

Hazardous Decomposition Products
Phosphorus oxides.

11. Toxicological information

Information on Likely Routes of Exposure

Product Information

Inhalation
May cause irritation of respiratory tract.

Eye contact
Irritating to eyes. Causes serious eye irritation.

Skin contact
Causes skin irritation.

Ingestion
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms
Redness. May cause redness and tearing of the eyes.

Acute toxicity
May be harmful if swallowed

Product Acute Toxicity Data
No data available.

Ingredient Acute Toxicity Data
Test data reported below.

Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid, potassium salt (1:1) (40 - 50%) CAS#: 7778-77-0</td>
<td>Mouse LD50</td>
<td>1700 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>IUCLID (The International Uniform Chemical Information Database)</td>
</tr>
</tbody>
</table>

Dermal Exposure Route

Inhalation (Dust/Mist) Exposure Route

Unknown acute toxicity
0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document
### ATEmix (oral)
- 3,884.80

### ATEmix (dermal)
- No information available

### ATEmix (inhalation-dust/mist)
- 501.00

### ATEmix (inhalation-vapor)
- No information available

### ATEmix (inhalation-gas)
- No information available

#### Skin corrosion/irritation
Classification based on data available for ingredients. Irritating to skin.

#### Product Skin Corrosion/Irritation Data
No data available.

#### Ingredient Skin Corrosion/Irritation Data
Test data reported below.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>24 hours</td>
<td>Skin irritant</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>(50 - 60%) CAS#: 7558-79-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dinitrophenol (&lt;1%)</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>300 mg</td>
<td>4 weeks</td>
<td>Mild skin irritant</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Serious eye damage/eye irritation
Classification based on data available for ingredients. Irritating to eyes.

#### Product Serious Eye Damage/Eye Irritation Data
No data available.

#### Ingredient Eye Damage/Eye Irritation Data
Test data reported below.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>24 hours</td>
<td>Eye irritant</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>(50 - 60%) CAS#: 7558-79-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Respiratory or skin sensitization
Based on available data, the classification criteria are not met.

#### Product Sensitization Data
No data available.

#### Ingredient Sensitization Data
No data available.

#### STOT - single exposure
Based on available data, the classification criteria are not met.

#### Product Specific Target Organ Toxicity Single Exposure Data
No data available.

#### Ingredient Specific Target Organ Toxicity Single Exposure Data
Test data reported below.
### Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol</td>
<td>Human LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>36 mg/kg</td>
<td>None reported</td>
<td>Behavioral, Coma, Cardiac, Pulse rate increase without fall in BP, Nutritional and Gross Metabolic, Hyperthermia</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>(&lt;1%) CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dermal Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol</td>
<td>Guinea pig TD&lt;sub&gt;lo&lt;/sub&gt;</td>
<td>700 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>(&lt;1%) CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### STOT - repeated exposure
Based on available data, the classification criteria are not met.

### Product Specific Target Organ Toxicity Repeat Dose Data
No data available.

### Ingredient Specific Target Organ Toxicity Repeat Exposure Data
Test data reported below.

### Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol</td>
<td>Rat TD&lt;sub&gt;lo&lt;/sub&gt;</td>
<td>540 mg/kg</td>
<td>18 days</td>
<td>Behavioral, Somnolence (general depressed activity), Convulsions or effect on seizure threshold, Death</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>(&lt;1%) CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Carcinogenicity
Based on available data, the classification criteria are not met.

### Product Carcinogenicity Data
No data available.

### Ingredient Carcinogenicity Data
No data available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium phosphate dibasic</td>
<td>7558-79-4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Phosphoric acid, potassium salt (1:1)</td>
<td>7778-77-0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2,4-Dinitrophenol</td>
<td>51-28-5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Legend

ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply
---|---
IARC (International Agency for Research on Cancer) | Does not apply
NTP (National Toxicology Program) | Does not apply
Osha (Occupational Safety and Health Administration of the US Department of Labor) | Does not apply

Germ Cell Mutagenicity
Based on available data, the classification criteria are not met.

Product Germ Cell Mutagenicity invitro Data
No data available.

Ingredient Germ Cell Mutagenicity invitro Data
Test data reported below.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test</th>
<th>Cell Strain</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol (&lt;1%) CAS#: 51-28-5</td>
<td>DNA damage</td>
<td>Rat liver</td>
<td>0.1 mmol/L</td>
<td>None reported</td>
<td>Positive test result for mutagenicity</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

Product Germ Cell Mutagenicity invivo Data
No data available.

Ingredient Germ Cell Mutagenicity invivo Data
Test data reported below.

Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol (&lt;1%) CAS#: 51-28-5</td>
<td>DNA damage</td>
<td>Mouse</td>
<td>50 mg/L</td>
<td>3 hours</td>
<td>Positive test result for mutagenicity</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

Reproductive toxicity
Based on available data, the classification criteria are not met.

Product Reproductive Toxicity Data
No data available.

Ingredient Reproductive Toxicity Data
Test data reported below.

Oral Exposure Route

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol (&lt;1%) CAS#: 51-28-5</td>
<td>Rat TDLo</td>
<td>2040 mg/kg</td>
<td>21 days</td>
<td>Effects on Newborn Stillbirth Weaning or lactation index (e.g. # alive at weaning per # alive at day 4)</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

Aspiration hazard
Based on available data, the classification criteria are not met.

12. Ecological information
Ecotoxicity

Based on available data, the classification criteria are not met.

Unknown aquatic toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Product Ecological Data

Aquatic Acute Toxicity
No data available.

Aquatic Chronic Toxicity
No data available.

Ingredient Ecological Data

Aquatic Acute Toxicity
Test data reported below.

Fish

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol (&lt;1%)</td>
<td>96 hours</td>
<td>None reported</td>
<td>LC₅₀</td>
<td>0.39 mg/L</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrophenol (&lt;1%)</td>
<td>96 hours</td>
<td>None reported</td>
<td>EC₅₀</td>
<td>10.9 mg/L</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
<tr>
<td>CAS#: 51-28-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Aquatic Chronic Toxicity
No data available.

Persistence and degradability

Product Biodegradability Data
No data available.

Bioaccumulation

Product Bioaccumulation Data
No data available.

Partition Coefficient (n-octanol/water) \( \log K_{ow} \approx 0 \)

Mobility

Soil Organic Carbon-Water Partition Coefficient \( \log K_{oc} \approx 0 \)

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products
Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging  Do not reuse empty containers.

14. Transportation information

MEX  Not regulated

Note:  No special precautions necessary.

TDG  Not regulated

U.S. DOT  Not regulated

ICAO (air)  Not regulated

IATA  Not regulated

IMDG  Not regulated

RID  Not regulated

ADR  Not regulated

ADN  Not regulated

Additional information
There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.
If the item is not in a reagent set or kit, the classification given above applies.
If the item is part of a reagent set or kit the classification would change to the following:
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.
If the item is not regulated, the Chemical Kit classification does not apply.

15. Regulatory information

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer  Not applicable

The Stockholm Convention on Persistent Organic Pollutants  Not applicable

The Rotterdam Convention  Not applicable

International Inventories

TSCA  Complies.

DSL/NDSL  Complies.

EINECS/ELINCS  Complies.

ENCS  Complies.

IECSC  Complies.

KECL  Complies.

PICCS  Complies.

AICS  Complies.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
**16. Other information**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>2</th>
<th>Flammability</th>
<th>0</th>
<th>Instability</th>
<th>0</th>
<th>Physical and chemical properties</th>
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</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>2</td>
<td>Flammability</td>
<td>0</td>
<td>Physical hazards</td>
<td>0</td>
<td>Personal protection</td>
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</table>

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Legend</th>
<th>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>TWA (time-weighted average)</td>
</tr>
<tr>
<td>Ceiling</td>
<td>Maximum limit value</td>
</tr>
<tr>
<td>HMIS</td>
<td>SKN* (Skin designation)</td>
</tr>
<tr>
<td>STEL</td>
<td>STEL (Short Term Exposure Limit)</td>
</tr>
</tbody>
</table>

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGL(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- Japan GHS Classification
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- RTECS (Registry of Toxic Effects of Chemical Substances)
- World Health Organization

Prepared By: 
Hach Product Compliance Department.

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Revision Note: 
None

NOM-018-STPS-2015

The information is believed to be accurate, but it is not exhaustive and must be used only as guidance. It is based on the current state of knowledge of the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.
End of Safety Data Sheet