SECTION 1: Identification

1.1. Identification
Product form: Substance
Substance name: Sodium Phosphate Monobasic Monohydrate
CAS-No.: 10049-21-5
Formula: NaH₂PO₄ • H₂O

1.2. Recommended use and restrictions on use
Use of the substance/mixture: Oral Care; Pharmaceuticals
Laboratory Reagent
Buffering Agent

1.3. Supplier
Manufacturer
Jost Chemical Co.
8150 Lackland Rd.
Saint Louis, Missouri 63114
T 314-428-4300 - F 314-428-4366
sds@jostchemical.com - www.jostchemical.com

1.4. Emergency telephone number
Emergency number: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
United States and Canada: 1-800-424-9300 / +1 703-527-3887
Global: +1 703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Not classified

2.2. GHS Label elements, including precautionary statements
GHS-US labeling
No labeling applicable

2.3. Other hazards which do not result in classification
Other hazards not contributing to the classification: None to our knowledge.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Substance type: Mono-constituent

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Monobasic Monohydrate (Main constituent)</td>
<td>(CAS-No.) 10049-21-5</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures
First-aid measures general: If you feel unwell, seek medical advice.
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
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First-aid measures after skin contact: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists. Wash skin with plenty of water.

First-aid measures after eye contact: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.


4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin> 5000 mg/kg). Slightly irritant to skin. Slightly irritant to respiratory organs. Slightly irritant to eyes.

Symptoms/effects after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Slight irritation.

Symptoms/effects after skin contact: Unlikely to cause harmful effects.

Symptoms/effects after eye contact: Slight irritation.


4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


5.2. Specific hazards arising from the chemical

Fire hazard: DIRECT FIRE HAZARD: Non combustible.

Explosion hazard: No data available.

Reactivity: Reacts violently with (some) acids/bases. Reacts slowly on exposure to water (moisture) with (some) metals.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.

Firefighting instructions: Dilute toxic gases with water spray.


SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel


Emergency procedures: Ventilate spillage area. Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.

Measures in case of dust release: In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.

Methods for cleaning up: Mechanically recover the product. Stop dust cloud by humidifying. Scoop solid spill into closing containers. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

Other information: Dispose of materials or solid residues at an authorized site.
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6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Thoroughly clean/dry the installation before use.

Hygiene measures: Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store in a well-ventilated place. Keep cool.


Storage temperature: 20 °C

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage: KEEP SUBSTANCE AWAY FROM: (strong) acids. (strong) bases. metals. water/moisture.

Storage area: Store in a dry area. Keep container in a well-ventilated place. Store at room temperature. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.


SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Materials for protective clothing:
GIVE GOOD RESISTANCE: rubber. plastics

Hand protection:
Gloves

Eye protection:
Safety glasses. In case of dust production: protective goggles. Safety glasses

Skin and body protection:
Protective clothing

Respiratory protection:
Dust production: dust mask with filter type P1

Personal protective equipment symbol(s):
Sodium Phosphate Monobasic Monohydrate
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Granules.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless to white</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>4.1 - 4.5 (5 %)</td>
</tr>
<tr>
<td>Melting point</td>
<td>100 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>2</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>2040 kg/m³</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>137.99 g/mol</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td></td>
<td>Water: 60 g/100ml (0 °C)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>100 °C</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Non oxidizing material according to EC criteria.</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum ignition energy</td>
<td>Not applicable</td>
</tr>
<tr>
<td>VOC content</td>
<td>0 %</td>
</tr>
<tr>
<td>Other properties</td>
<td>Hygroscopic. Substance has acid reaction.</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with (some) acids/bases. Reacts slowly on exposure to water (moisture) with (some) metals.

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

None to our knowledge.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Sodium oxides. Phosphorous oxide. carbon oxides (CO and CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

<table>
<thead>
<tr>
<th>Sodium Phosphate Monobasic Monohydrate (10049-21-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>ATE US (oral)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitization : Not classified (Lack of data)
Germ cell mutagenicity : Not classified (Lack of data)
Carcinogenicity : Not classified (Lack of data)
Reproductive toxicity : Not classified (Lack of data)
Specific target organ toxicity – single exposure : Not classified (Lack of data)
Specific target organ toxicity – repeated exposure : Not classified (Lack of data)

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Likely routes of exposure : Skin and eye contact. Inhalation. Ingestion.

Potential Adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin> 5000 mg/kg). Slightly irritant to skin. Slightly irritant to respiratory organs. Slightly irritant to eyes.

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Slight irritation.
Symptoms/effects after skin contact : Unlikely to cause harmful effects.
Symptoms/effects after eye contact : Slight irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

<table>
<thead>
<tr>
<th>Sodium Phosphate Monobasic Monohydrate (10049-21-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>Additional ecotox information</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Sodium Phosphate Monobasic Monohydrate (10049-21-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
</tr>
<tr>
<td>ThOD</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>12.3. Bioaccumulative potential</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Monobasic Monohydrate (10049-21-5)</td>
<td>Bioaccumulative potential No bioaccumulation data available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.4. Mobility in soil</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.5. Other adverse effects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information available</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 13: Disposal considerations

<table>
<thead>
<tr>
<th>13.1. Disposal methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional legislation (waste)</td>
<td>LWCA (the Netherlands): KGA category 05.</td>
</tr>
<tr>
<td>Waste treatment methods</td>
<td>Dispose of contents/container in accordance with licensed collector's sorting instructions.</td>
</tr>
<tr>
<td>Product/Packaging disposal recommendations</td>
<td>Avoid discharge of large amounts into the sewer. Do not discharge into surface water. Remove waste in accordance with local and/or national regulations. Remove to an authorized dump (Class I). Precipitate/make insoluble.</td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Not regulated

**Transportation of Dangerous Goods**

Proper Shipping Name (Transportation of Dangerous Goods) : Not regulated for transport

**Transport by sea**

Proper Shipping Name (IMDG) : Not regulated for transport

**Air transport**

Proper Shipping Name (IATA) : Not regulated for transport

### SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>15.1. US Federal regulations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Monobasic Monohydrate (10049-21-5)</td>
<td>Not listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| Sodium Phosphate Monobasic Monohydrate | CAS-No. 10049-21-5 | 100% |

<table>
<thead>
<tr>
<th>15.2. International regulations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CANADA</td>
<td>No additional information available</td>
</tr>
</tbody>
</table>

**EU-Regulations**

No additional information available

**National regulations**

No additional information available
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15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

NFPA health hazard: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity: 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating
Health: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability: 0 Minimal Hazard - Materials that will not burn
Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (HazCom 2012)
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.