**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. **Product identifier**

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance name</td>
<td>Sodium Phosphate Dibasic Dihydrate</td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-448-7</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>10028-24-7</td>
</tr>
<tr>
<td>Formula</td>
<td>Na2HPO4 • 2H2O</td>
</tr>
</tbody>
</table>

1.2. **Relevant identified uses of the substance or mixture and uses advised against**

1.2.1. **Relevant identified uses**

| Use of the substance/mixture | Pharmaceuticals Buffering Agent |

1.2.2. **Uses advised against**

No additional information available

1.3. **Details of the supplier of the safety data sheet**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Jost Chemical Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8150 Lackland Rd.</td>
<td></td>
</tr>
<tr>
<td>63114 Saint Louis, Missouri</td>
<td></td>
</tr>
<tr>
<td>T 314-428-4300 - F 314-428-4366</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:sds@jostchemical.com">sds@jostchemical.com</a> - <a href="http://www.jostchemical.com">www.jostchemical.com</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distributor</th>
<th>JOST CHEMICAL EUROPE SPRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>rue du Bois Portal n° 30/1-3</td>
<td></td>
</tr>
<tr>
<td>B - 5300 Andenne - BELGIQUE</td>
<td></td>
</tr>
<tr>
<td>T +32 85-552655 - F +32 85-552654</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:info@jostchemical.com">info@jostchemical.com</a></td>
<td></td>
</tr>
</tbody>
</table>

1.4. **Emergency telephone number**

<table>
<thead>
<tr>
<th>Emergency number</th>
<th>For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call CHEMTREC Day or Night</td>
<td>United States and Canada: 1-800-424-9300 / +1 703-527-3887</td>
</tr>
<tr>
<td>Global: +1 703-741-5970</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 2: Hazards identification**

2.1. **Classification of the substance or mixture**


Not classified

**Adverse physicochemical, human health and environmental effects**

No additional information available

2.2. **Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. **Other hazards**

Other hazards not contributing to the classification: None to our knowledge.

PBT: not yet assessed

vPvB: not yet assessed

**SECTION 3: Composition/information on ingredients**

3.1. **Substances**

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Mono-constituent</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Dibasic Dihydrate</td>
<td>(CAS-No.) 10028-24-7</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 231-448-7</td>
<td></td>
</tr>
</tbody>
</table>

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.

First-aid measures after skin contact: Wash skin with plenty of water.

First-aid measures after eye contact: Rinse eyes with water as a precaution.
First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects: (see section(s): Section 2.2.
- Symptoms/effects after inhalation: Coughing.
- Symptoms/effects after skin contact: Slight irritation.
- Symptoms/effects after eye contact: Slight irritation.
- Chronic symptoms: Red skin. Dry skin. Itching.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
5.2. Special hazards arising from the substance or mixture
Fire hazard: Non combustible.
Explosion hazard: Not applicable.
Hazardous decomposition products in case of fire: Toxic gases are released. Sodium oxides. Phosphorus oxides.
5.3. Advice for firefighters
Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions: Dilute toxic gases with water spray.
Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General measures: Avoid dust formation. Avoid breathing dust, mist or spray.
6.1.1. For non-emergency personnel
Emergency procedures: Ventilate spillage area.
Measures in case of dust release: In case of dust production: keep upwind. Dust production: have neighbourhood 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.
Other information: Dispose of materials or solid residues at an authorized site.
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.
Hygiene measures: 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: Does not require any specific or particular technical measures.
Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store in a well-ventilated place. Keep cool.
Incompatible materials: Strong oxidizing agents. Strong acids.
Heat and ignition sources: heat sources.
Information on mixed storage: (strong) acids. water/moisture.
Sodium Phosphate Dibasic Dihydrate
Safety Data Sheet
according to Regulation (EC) No. 453/2010

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

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>DNEL/DMEL (Workers)</th>
<th>DNEL/DMEL (General population)</th>
<th>PNEC (Water)</th>
<th>PNEC (STP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Dibasic Dihydrate (10028-24-7)</td>
<td>Long-term - systemic effects, inhalation: 4.07 mg/m³</td>
<td>Long-term - systemic effects, inhalation: 3.04 mg/m³</td>
<td>PNEC aqua (freshwater): 0.05 mg/l</td>
<td>PNEC sewage treatment plant: 50 mg/l</td>
</tr>
<tr>
<td></td>
<td>PNEC aqua (marine water): 0.005 mg/l</td>
<td>PNEC aqua (intermittent, freshwater): 0.5 mg/l</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

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

Personal protective equipment:

Materials for protective clothing:
Wear suitable protective clothing, gloves and eye/face protection

Hand protection:
Impermeable protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Protective clothing

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

Personal protective equipment symbol(s):

Environmental exposure controls:
Avoid release to the environment.

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>Molecular mass</td>
<td>177.99 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to white.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>9 (1 %)</td>
</tr>
</tbody>
</table>
Sodium Phosphate Dibasic Dihydrate
Safety Data Sheet
according to Regulation (EC) No. 453/2010

Relative evaporation rate (butylacetate=1): No data available
Melting point: 240 °C
Freezing point: Not applicable
Boiling point: Not applicable
Flash point: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: 240 °C
Flammability (solid, gas): Non flammable.
Vapour pressure: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C: Not applicable
Relative density: Not applicable
Solubility: Soluble in water.
Water: 12 g/100ml
Log Pow: -5.8 (Published data)
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: Not explosive.
Oxidising properties: Non oxidizing material according to EC criteria.
Explosive limits: Not applicable

9.2. Other information
Minimum ignition energy: Not applicable
SADT: Not applicable
VOC content: 0 %
Other properties: Hygroscopic. Substance has basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts violently with (some) acids.

10.2. Chemical stability
Hygroscopic.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None to our knowledge.

10.5. Incompatible materials
Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products
On thermal decomposition (pyrolysis), releases: Sodium oxides, Phosphorus oxides.

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

**Sodium Phosphate Dibasic Dihydrate (10028-24-7)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>17000 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 7940 mg/kg (Rat)</td>
</tr>
</tbody>
</table>

Causes serious eye damage.

Additional information: (equivalent or similar to OECD Guideline 404) (Published data)

Serious eye damage/irritation:

pH: 9 (1 %)

Additional information: (equivalent or similar to OECD Guideline (0)) 405 (Published data)

Respiratory or skin sensitisation:

Additional information: (OECD 429 method) (results obtained by read-across) (Published data)
### Sodium Phosphate Dibasic Dihydrate Safety Data Sheet

#### Germ cell mutagenicity
- Not classified (Based on available data, the classification criteria are not met)

#### Additional information
- Bacterial mutation test: Negative (Published data)

#### Carcinogenicity
- Not classified (Lack of data)

#### Reproductive toxicity
- Not classified (Based on available data, the classification criteria are not met)

#### Additional information
- NOAEL (oral, rat): > 410 mg/kg/d (results obtained by read-across) (Published data)

#### STOT—single exposure
- Not classified (Lack of data)

#### STOT—repeated exposure
- Not classified (Lack of data)

#### Aspiration hazard
- Not classified (Not applicable)

#### 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 harmful by inhalation. Slightly irritant to respiratory organs. Slightly irritant to eyes.

### SECTION 12: Ecological information

#### 12.1. Toxicity

| Ecology - general | Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with. |
| Ecology - air | Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). |
| Dangerous for the environment | Not classified |
| Chronic aquatic toxicity | Not classified |

### Sodium Phosphate Dibasic Dihydrate (10028-24-7)

| LC50 fish 1 | > 2400 mg/l (OECD 203: Fish, Acute Toxicity Test, 48 h, Leuciscus idus) |
| EC50 Daphnia 1 | 126 mg/l (TLm; 72 h) |

#### 12.2. Persistence and degradability

| Sodium Phosphate Dibasic Dihydrate (10028-24-7) | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

#### 12.3. Bioaccumulative potential

| Sodium Phosphate Dibasic Dihydrate (10028-24-7) | Log Pow -5.8 (Published data) |
| Bioaccumulative potential | Not bioaccumulative. |

#### 12.4. Mobility in soil

- No additional information available

#### 12.5. Results of PBT and vPvB assessment

| Sodium Phosphate Dibasic Dihydrate (10028-24-7) | PBT: not yet assessed |
| vPvB: not yet assessed | |

#### 12.6. Other adverse effects

- No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

| Waste treatment methods | Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Product/Packaging disposal recommendations | 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. |
**SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA

**14.1. UN number**

- UN-No. (ADR) : Not applicable
- UN-No. (IMDG) : Not applicable
- UN-No. (IATA) : Not applicable

**14.2. UN proper shipping name**

- Proper Shipping Name (ADR) : Not regulated for transport
- Proper Shipping Name (IMDG) : Not regulated for transport
- Proper Shipping Name (IATA) : Not regulated for transport

**14.3. Transport hazard class(es)**

- ADR : Not applicable
- IMDG : Not applicable
- IATA : Not applicable

**14.4. Packing group**

- Packing group (ADR) : Not applicable
- Packing group (IMDG) : Not applicable
- Packing group (IATA) : Not applicable

**14.5. Environmental hazards**

- Dangerous for the environment : No
- Marine pollutant : No
- Other information : Not applicable.

**14.6. Special precautions for user**

- Overland transport : Transport regulations (ADR) : Not subject
- Transport by sea : Transport regulations (IMDG) : Not subject
- Air transport : Transport regulations (IATA) : Not subject

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No applicable

**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

- No REACH Annex XVII restrictions
- Sodium Phosphate Dibasic Dihydrate is not on the REACH Candidate List
- Sodium Phosphate Dibasic Dihydrate is not on the REACH Annex XIV List
- VOC content : 0 %

- Directive 2012/18/EU (SEVESO III)

**15.1.2. National regulations**

- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on INSQ (Mexican National Inventory of Chemical Substances)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

The anhydrous form of this material is listed on the United States TSCA (Toxic Substance Control Act) inventory

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

**SECTION 16: Other information**

**Indication of changes:**

This sheet was updated (refer to the date at the top of this page).
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.