Sodium Phosphate Dibasic Heptahydrate
Safety Data Sheet
according to Regulation (EC) No. 453/2010
Date of issue: 7/2/2015 Revision date: 6/11/2018 Supersedes: 11/12/2015 Version: 3.0

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

1.1. Product identifier
Product form : Substance
Substance name : Sodium Phosphate Dibasic Heptahydrate
EC-No. : 231-448-7
CAS-No. : 7782-85-6
Formula : Na₂HPO₄ • 7H₂O

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

Distributor: JOST CHEMICAL EUROPE SPRL
rue du Bois Portal n° 30/1-3
B - 5300 Andenne - BELGIQUE
T +32 85-552655 - F +32 85-552654
info@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: Hazards identification

2.1. Classification of the substance or mixture
Not classified

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
Substance type : Mono-constituent

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Phosphate Dibasic Heptahydrate</td>
<td>(CAS-No.) 7782-85-6 (EC-No.) 231-448-7</td>
<td>100</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**

**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.

**First-aid measures after skin contact**
- Rinse with water. 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. Take victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.

**First-aid measures after ingestion**
- Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Victim is fully conscious: immediately induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/effects after skin contact**
- Slight irritation.

**Symptoms/effects after eye contact**
- Slight irritation.

**Symptoms/effects after ingestion**

**Chronic symptoms**
- ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin.

#### 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**
- DIRECT FIRE HAZARD: Non combustible.

**Explosion hazard**
- Not applicable.

**Hazardous decomposition products in case of fire**
- On burning: release of toxic and corrosive gases/vapours (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**

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

**Emergency procedures**
- Ventilate spillage area. Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames.

**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. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

**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.
Sodium Phosphate Dibasic Heptahydrate
Safety Data Sheet
according to Regulation (EC) No. 453/2010

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. 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:
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:
KEEP SUBSTANCE AWAY FROM: heat sources.

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

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

Packaging materials:
SUITABLE MATERIAL: paper. textile. synthetic material. MATERIAL TO AVOID: aluminium. iron.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Sodium Phosphate Dibasic Heptahydrate (7782-85-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL/DMEL (Workers)</td>
</tr>
<tr>
<td>Long-term - systemic effects, inhalation</td>
</tr>
<tr>
<td>DNEL/DMEL (General population)</td>
</tr>
<tr>
<td>Long-term - systemic effects, inhalation</td>
</tr>
<tr>
<td>PNEC (Water)</td>
</tr>
<tr>
<td>PNEC aqua (freshwater)</td>
</tr>
<tr>
<td>PNEC aqua (marine water)</td>
</tr>
<tr>
<td>PNEC aqua (intermittent, freshwater)</td>
</tr>
<tr>
<td>PNEC (STP)</td>
</tr>
<tr>
<td>PNEC sewage treatment plant</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:
GIVE GOOD RESISTANCE: neoprene. PVC

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
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>Granular solid</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>268.07 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless or 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>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</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>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 48 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.7</td>
</tr>
<tr>
<td>Density</td>
<td>1680 kg/m³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</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>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

Minimum ignition energy: 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
None to our knowledge.

10.4. Conditions to avoid
None to our knowledge.

10.5. Incompatible materials
Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products
On thermal decomposition (pyrolysis), releases: Phosphorus oxides, Sodium 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)
Sodium Phosphate Dibasic Heptahydrate
Safety Data Sheet
according to Regulation (EC) No. 453/2010

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 Heptahydrate (7782-85-6)

LD50 oral rat 12930 mg/kg (Rat)
LD50 dermal rat > 2000 mg/kg (Rat)

Causes serious eye damage.
Additional information: Not classified (Based on available data, the classification criteria are not met)
pH: 9 (1 %)

Serious eye damage/irritation:
Additional information: Not classified (Based on available data, the classification criteria are not met)
pH: 9 (1 %)

Respiratory or skin sensitisation:
Additional information: Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity:
Additional information: Bacterial mutation test: Negative, (Published data)

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

STOT-single exposure:
STOT-repeated exposure:
Aspiration hazard:
Potential adverse human health effects and symptoms:

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general:
Ecology - air:
Ecology - water:
Germ cell mutagenicity:
Carcinogenicity:
Reproductive toxicity:

12.2. Persistence and degradability
Sodium Phosphate Dibasic Heptahydrate (7782-85-6)

Persistence and degradability: 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 Heptahydrate (7782-85-6)

Bioaccumulative potential: Not bioaccumulative.

12.4. Mobility in soil
No additional information available
12.5. Results of PBT and vPvB assessment

Sodium Phosphate Dibasic Heptahydrate (7782-85-6)

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 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
Transport hazard class(es) (ADR): Not applicable

IMDG
Transport hazard class(es) (IMDG): Not applicable

IATA
Transport hazard class(es) (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

Not 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 Heptahydrate is not on the REACH Candidate List
Sodium Phosphate Dibasic Heptahydrate 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 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.