Sodium Phosphate Monobasic Monohydrate
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 10/16/2018  Supersedes: 7/2/2015  Version: 2.0

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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Name</td>
<td>Phosphoric acid, monosodium salt, monohydrate</td>
</tr>
<tr>
<td>Trade name</td>
<td>Sodium Phosphate Monobasic Monohydrate</td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-449-2</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>10049-21-5</td>
</tr>
<tr>
<td>REACH registration No</td>
<td>01-2119489796-13-0047</td>
</tr>
<tr>
<td>Formula</td>
<td>NaH₂PO₄ • H₂O</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 : Food-stuff industry

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
P.O. Box MO 63114
Saint Louis - USA
T +1 314-428-4300 - F +1 314-428-4366
sds@jostchemical.com

Distributor: JOST CHEMICAL EUROPE SPRL
Rue du Bois Portal 30/1-3
5300 Andenne - BELGIQUE
T +32 85 552 655 - F +32 85 552 654
info@josteurope.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

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation/Company</th>
<th>Address</th>
<th>Emergency number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>National Poisons Information Centre, Beaumont Hospital</td>
<td>PO Box 1297, Beaumont Road, 9 Dublin</td>
<td>+353 1 809 2566 (Healthcare professionals-24/7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+353 1 809 2166 (public, 8am - 10pm, 7/7)</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

Signal word (CLP) : None

Hazard statements (CLP) : None.

Precautionary statements (CLP) : None.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid, monosodium salt, monohydrate</td>
<td>(CAS-No.) 10049-21-5 (EC-No.) 231-449-2 (REACH-no) 01-2119489796-13-0047</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air.
First-aid measures after skin contact : Remove all contaminated clothing and footwear. Rinse with plenty of water.
First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). If irritation persists, consult an eye specialist.
First-aid measures after ingestion : Rinse mouth out with water. Give water to drink. Induce vomiting. If necessary seek medical advice.

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


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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing agents can be used.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible.
Hazardous decomposition products in case of fire : On thermal decomposition (pyrolysis), releases : Sodium oxides. Phosphorus oxides.

5.3. Advice for firefighters

Firefighting instructions : Do not dispose of fire-fighting water in the environment. Cool down the containers exposed to heat with a water spray.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes. Do not breathe dust.

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

Do not allow product to spread into the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

For containment : Sweep up or vacuum up the product. Avoid creating or spreading dust.
Methods for cleaning up : Wash contaminated area with large amounts of water.
Other information : Dispose of contaminated materials in accordance with current regulations.

6.4. Reference to other sections

For further information refer to section 13.

10/16/2018 EN (English)
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Dust extraction (suction). Avoid contact with skin and eyes. Avoid the formation or spread of dust in the atmosphere.
Hygiene measures: Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Does not require any specific or particular technical measures.
Storage conditions: Keep container tightly closed and dry. Protect from light. Store in a cool, well-ventilated place.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Phosphoric acid, monosodium salt, monohydrate (10049-21-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland Local name</td>
</tr>
<tr>
<td>Ireland OEL (8 hours ref) (mg/m³)</td>
</tr>
<tr>
<td>Ireland Regulatory reference</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls:
Ensure good ventilation of the work station. Extraction to remove dust at its source.

Hand protection:
Nitrile-rubber protective gloves. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374. Breakthrough time: refer to the recommendations of the supplier

Eye protection:
Safety goggles

Respiratory protection:
In case of dust formation use respirator with filter: P1 / FFP1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | Solid |
| Appearance | Granulate |
| Molecular mass | 137.99 g/mol |
| Colour | White |
| Odour | Odourless |
| Odour threshold | No data available |
| pH | 4.5 |
| pH solution | 50 g/l Aqueous solution |
| Relative evaporation rate (butylacetate=1) | No data available |
| Melting point | 450 °C (anhydrous product) |
| Freezing point | Not applicable |
| Boiling point | Not applicable |
| Flash point | Not applicable |
| Auto-ignition temperature | Not combustible |
| Decomposition temperature | No data available |
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Flammability (solid, gas) : Not flammable
Vapour pressure : Not applicable
Relative vapour density at 20 °C : No data available
Relative density : 2.04
Solubility : Water: 50.2 - 52 % (anhydrous product - 20°C - pH = 3.6-4)
Log Pow : Not applicable
Viscosity, kinematic : Not applicable
Viscosity, dynamic : No data available
Explosive properties : Not explosive.
Oxidising properties : Non oxidizing material.
Explosive limits : Not applicable

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
To our knowledge, the product does not present any particular risk.

10.2. Chemical stability
Stable at ambient temperature and under normal conditions of use.

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
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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)

Phosphoric acid, monosodium salt, monohydrate (10049-21-5)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 2000 mg/kg (OECD 420 method) (anhydrous product)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg (OECD 402 method) (anhydrous product)</td>
</tr>
<tr>
<td>LC50 inhalation rat (Dust/Mist - mg/l/4h)</td>
<td>&gt; 0.83 mg/l/4h (OECD 403 method) (anhydrous product)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
  pH: 4.5

Additional information : Not irritating to rabbits on cutaneous application
  (OECD 404 method) (anhydrous product)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
  pH: 4.5

Additional information : Not irritating to rabbits on ocular application
  (anhydrous product)

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

Additional information : Did not cause sensitisation
  (method B.42) (anhydrous product)

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

Additional information : In vitro Mammalian Cell Gene Mutation Test : negative
  (OECD 490 method) (anhydrous product)

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

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
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Additional information: NOAEL (oral, mouse): > 370 mg/kg/d (anhydrous product)

STOT - single exposure: Not classified (Based on available data, the classification criteria are not met)

Additional information: Dust from this product may cause irritation to the respiratory tract

STOT - repeated exposure: Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard: Not classified (Technical impossibility to obtain the data)

SECTION 12: Ecological information

12.1. Toxicity

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

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

Phosphoric acid, monosodium salt, monohydrate (10049-21-5)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish</td>
<td>&gt; 100 mg/l/96h Oncorhynchus mykiss (Rainbow trout)(OECD 203 method)(Results obtained on a similar product)</td>
</tr>
<tr>
<td>EC50 Daphnia</td>
<td>&gt; 100 mg/l/48 h (Daphnia magna)(OECD 202 method)(Results obtained on a similar product)</td>
</tr>
<tr>
<td>ErC50 (algae)</td>
<td>&gt; 100 mg/l/72 h (Desmodesmus subspicatus)(OECD 201 method)(Results obtained on a similar product)</td>
</tr>
<tr>
<td>NOEC chronic algae</td>
<td>(Desmodesmus subspicatus)(OECD 201 method)(Results obtained on a similar product)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Phosphoric acid, monosodium salt, monohydrate (10049-21-5)

Persistence and degradability: Not applicable (inorganic substance).

12.3. Bioaccumulative potential

Phosphoric acid, monosodium salt, monohydrate (10049-21-5)

Log Pow: Not applicable

Bioaccumulative potential: Not applicable (inorganic substance).

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Phosphoric acid, monosodium salt, monohydrate (10049-21-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods: Dispose of in accordance with relevant local regulations.

Product/Packaging disposal recommendations: Destroy at an authorised site.

Additional information: The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1.</td>
<td>UN number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2.</td>
<td>UN proper shipping name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3.</td>
<td>Transport hazard class(es)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4.</td>
<td>Packing group</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5.</td>
<td>Environmental hazards</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Dangerous for the environment: No

Marine pollutant: No

Not applicable.
14.6. Special precautions for user
- Overland transport
  No data available
- Transport by sea
  No data available
- Air transport
  No data available

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
  Phosphoric acid, monosodium salt, monohydrate is not on the REACH Candidate List
  Phosphoric acid, monosodium salt, monohydrate is not on the REACH Annex XIV List

15.1.2. National regulations
  No additional information available

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). SDS changed sections : 4-8-9-11-12.

Data sources : REACH registration.
Other information : This product must not be used for other applications that mentioned in §1. Safety data sheet established by : LISAM SERVICES - TELEGIS
                   17 rue de la Couture F-60400 Passel

SDS EU (REACH Annex II)

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 therefore be construed as guaranteeing any specific property of the product.