SAFETY DATA SHEET
Phosphoric Acid 75%

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

Date issued 12.11.2012

1.1. Product identifier
Product name Phosphoric Acid 75%
Synonyms Fosforsyre 75%
REACH Reg No 01-2119485924-24
CAS no. 7664-38-2
EC no. 231-633-2

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/preparation
Water treatment. Cleaning of process equipment for food production.

1.3. Details of the supplier of the safety data sheet
Distributor
Company name Acinor AS
Office address Titangt. 13, NO-1630 Gamle Fredrikstad
Postal address Titangaten 13
Postcode 1630
City Gamle Fredrikstad
Country Norway
Tel 69384082
Fax 69384084
E-mail post@acinor.no
Website http://www.acinor.no
Enterprise no. NO 984 648 324 MVA
Contact person Rolf Egil de Flon

1.4. Emergency telephone number
Emergency telephone Toxic Information: 22 59 13 00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to 67/548/EEC or 1999/45/EC C; R34
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Skin Corr 1B; H314;
Substance / mixture hazardous properties Causes severe skin burns and eye damage.

2.2. Label elements
Hazard Pictograms (CLP)
Composition on the label

Orthophosphoric acid ...%: 70 - 85 %

Signal word

Danger

Hazard statements

H314 Causes Severe skin burns and eye damage.

Precautionary statements

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P101 If medical advice is needed, have product container or label at hand.
P273 Avoid release to the environment.

2.3. Other hazards

PBT / vPvB

PBT/vPvB assessment has not been performed.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Component name</th>
<th>Identification</th>
<th>Classification</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthophosphoric acid ...%</td>
<td>CAS no.: 7664-38-2</td>
<td>C; R34</td>
<td>70 - 85 %</td>
</tr>
<tr>
<td></td>
<td>EC no.: 231-633-2</td>
<td>Skin Corr. 1B; H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index no.: 015-011-00-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synonyms: Orthophosphoric acid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>CAS no.: 7732-18-5</td>
<td></td>
<td>15 - 30 %</td>
</tr>
<tr>
<td></td>
<td>EC no.: 231-791-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component comments

See section 16 for explanation of H- and R-phrases listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General

If in doubt, seek medical advice.

Inhalation

Fresh air and rest. Rinse nose and mouth with water. Get medical attention if any discomfort continues. For breathing difficulties oxygen may be necessary.

Skin contact

Remove contaminated clothing. Flush skin thoroughly with water. Important to remove the substance from the skin immediately. Get medical attention. Chemical burns must be treated by a physician. Wash contaminated clothes before reuse.

Eye contact

Promptly rinse eyes with plenty of water (tempered at 20-30°C) for at least 15 minutes. Remove contact lenses and open eyes wide apart. Immediately consult a doctor. Transport to physician. Keep on flushing during transport.

Ingestion

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Drink a few glasses of water or milk. Do not give victim anything to drink if he is unconscious. Immediately consult a doctor. Transport to hospital. Bring the safety data sheet.

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

Information for health personnel

Treat Symptomatically.

Acute symptoms and effects

Corrosive. Forms blisters and can cause ulceration.
Corrosive to the eyes, danger of vision impairment / blindness, burning nose, chemical burns to the skin.
Causes burns if swallowed. Causes burning sensation in the mouth, throat and esophagus. May cause serious permanent damage.
Inhalation: May cause chemical burns to the respiratory tract.

Delayed symptoms and effects

Langvarig eller gjentatt påvirknings kan gi varige skader.

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

Other Information

Splashes in the eyes and ingestion of more than an insignificant amount requires immediate medical attention. Chemical burns of the skin must be treated as burns.
SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Dry-powder, carbon dioxide (CO2), water mist, foam.

Improper extinguishing media: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards: The product is not classified as flammable.

Hazardous combustion products: Oxides of phosphorous (POx). Phosphoric acid mist.

5.3. Advice for firefighters

Personal protective equipment: Use fresh air equipment when the product is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.

Other Information: Containers close to fire should be removed immediately or cooled with water. Spill water from fire fighting may be strongly caustic. Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Use protective equipment as referred to in section 8. Provide adequate ventilation. Avoid inhalation of spray mist and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions: Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Methods for cleaning: Absorb in vermiculite, dry sand or earth and place into containers. Collect in a suitable container and dispose as hazardous waste according to section 13.

6.4. Reference to other sections

Other instructions: See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling: Use protective equipment as referred to in section 8. Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid direct contact. Never pour water into acid/base. Dilute by slowly pouring the product into water while stirring. Be aware of the risk of exothermic reactions. Immediately change contaminated clothes.

Protective Measures

Advice on general occupational hygiene: Wash hands at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke during work.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Store in a tightly closed container in a cool, well-ventilated room, protected from direct sunlight. Store in a dry place. Corrosive storage.

Hints on storage assembly: Keep away from: Bases.

7.3. Specific end use(s)

Specific use(s): See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

<table>
<thead>
<tr>
<th>Component name</th>
<th>Identification</th>
<th>Value</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>CAS no.: 7664-38-2</td>
<td>8 h.: 1 mg/m3</td>
<td>2007</td>
</tr>
</tbody>
</table>
### 8.2. Exposure controls

**Occupational exposure controls**
Provide adequate ventilation. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Respiratory protection**
In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type B2/P2).

**Hand protection**
Use chemical resistant gloves.

**Suitable gloves type**

**Breakthrough time**
Penetration time is not known. The recommended material of gloves is recommended after a study of the single components in the product.

**Eye / face protection**
Use approved safety goggles or face shield.

**Skin protection**
Wear appropriate clothing to prevent any possibility of skin contact.

**Additional skin protection measures**
Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated.

**Other Information**
Eye wash facilities and emergency shower should be available when handling this product. The listed protective equipment is a recommendation. A risk assessment of the actual risk may lead to other requirements.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Viscous liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Colourless</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>No characteristic odour</td>
</tr>
<tr>
<td><strong>pH (as supplied)</strong></td>
<td>Value: &lt; 1</td>
</tr>
<tr>
<td><strong>Comments, pH (as supplied)</strong></td>
<td>Concentrated solution</td>
</tr>
<tr>
<td><strong>Melting point / melting range</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Boiling point / boiling range</strong></td>
<td>Value: 140 °C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not known</td>
</tr>
<tr>
<td>** Explosion limit**</td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Specific gravity</strong></td>
<td>Value: 1.63 g/cm³</td>
</tr>
<tr>
<td><strong>Solubility in water</strong></td>
<td>Soluble</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol / water</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Spontaneous combustability</strong></td>
<td>Not known</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not known</td>
</tr>
</tbody>
</table>
Phosphoric Acid 75%

Comments, Viscosity
Not known.

Physical hazards
Explosive properties
Not known.
Oxidising properties
Not known.

9.2. Other information

Other physical and chemical properties
Physical and chemical properties
Freezing point: -15°C.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
Reactive with the materials listed in Section 10.5.

10.2. Chemical stability
Stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
Arise in contact with incompatible materials (section 10.5) and inappropriate conditions (section 10.4).

10.4. Conditions to avoid
Conditions to avoid
Do not add water directly to the product. It may cause a violent reaction. Generates heat upon contact with water.

10.5. Incompatible materials
Materials to avoid
Bases, alkalis (organic). Bases, alkalis (inorganic).

10.6. Hazardous decomposition products
Hazardous decomposition products
None under normal conditions. See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological Information:

<table>
<thead>
<tr>
<th>Toxicological Information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral</td>
</tr>
<tr>
<td>Value: 1530 mg/kg</td>
</tr>
<tr>
<td>Test animal species: Rat</td>
</tr>
<tr>
<td>Comments: (25%)</td>
</tr>
<tr>
<td>LD50 dermal</td>
</tr>
<tr>
<td>Value: 2740 mg/kg</td>
</tr>
<tr>
<td>Test animal species: Rabbit</td>
</tr>
</tbody>
</table>

Other information regarding health hazards
General
This substance is corrosive.

Potential acute effects

<table>
<thead>
<tr>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapours are corrosive. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema.</td>
</tr>
<tr>
<td>Skin contact</td>
</tr>
<tr>
<td>Corrosive. Prolonged contact causes serious tissue damage. Cause blisters and burns.</td>
</tr>
<tr>
<td>Eye contact</td>
</tr>
<tr>
<td>Corrosive. Immediate first aid is necessary. Risk of serious damage to eyes. Risk of permanent corneal damage, loss of sight and blindness</td>
</tr>
<tr>
<td>Ingestion</td>
</tr>
<tr>
<td>Causes burns if swallowed. Causes burning sensation in the mouth, throat and esophagus. May cause serious permanent damage. Risk of perforation of the stomach if there has been swallowed large amounts.</td>
</tr>
</tbody>
</table>

Delay / Repeating

<table>
<thead>
<tr>
<th>Sensitisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the substances mentioned in section 3 is considered to have sensitizing effects according to current labelling rules.</td>
</tr>
</tbody>
</table>

Carcinogenic, Mutagenic or Reprotoxic

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the substances mentioned in section 3 is considered as carcinogenic according to current labelling rules.</td>
</tr>
</tbody>
</table>
None of the substances mentioned in section 3 are considered to have mutagenic or pro-mutagenic effects.

None of the substances mentioned in section 3 are considered to cause harm to the unborn child.

None of the substances mentioned in section 3 are considered to have genotoxic effects.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecotoxicity: The product is not classified as dangerous for the environment. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms. Evaluate the necessity of neutralization.

#### 12.2. Persistence and degradability

Persistence and degradability: The product contains inorganic compounds that are not biodegradable.

#### 12.3. Bioaccumulative potential

Bioaccumulative potential: Product is not expected to be bioaccumulative.

#### 12.4. Mobility in soil

Mobility: The product is miscible with water. May spread in water systems.

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

PBT assessment results: PBT assessment has not been performed.

vPvB evaluation results: vPvB assessment has not been performed.

#### 12.6. Other adverse effects

Other adverse effects / Remarks: Acids cause decreased pH values in the water. A low pH value harms aquatic organisms. Do not allow to enter into sewer, water system or soil.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Specify the appropriate methods of disposal: Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intended as a guide. The code must be chosen by the user, if the use differs from the one mentioned above.

Product classified as hazardous waste: Yes

EWC waste code: EWC: *06 01 04 phosphoric and phosphorous acid

NORSAS: 7131 Acids, inorganic.

### SECTION 14: Transport information

#### 14.1. UN number

| ADR | 1805 |
| RID | 1805 |
| IMDG | 1805 |
| ICAO/IATA | 1805 |

#### 14.2. UN proper shipping name

| ADR | PHOSPHORIC ACID, SOLUTION |
| RID | PHOSPHORIC ACID, SOLUTION |
| IMDG | PHOSPHORIC ACID SOLUTION |
| ICAO/IATA | PHOSPHORIC ACID, SOLUTION |

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

| ADR | 8 |
| Hazard no. | 80 |
| RID | 8 |
| IMDG | 8 |
**14.4. Packing group**

<table>
<thead>
<tr>
<th>ICAO/IATA</th>
<th>ADR</th>
<th>RID</th>
<th>IMDG</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

**14.5. Environmental hazards**

IMDG Marine pollutant: No

**14.6. Special precautions for user**

ADR Other applicable information: Classification code: C1

EmS: F-A, S-B

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Other applicable information: Not relevant.

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**SECTION 15: Regulatory information**

**EC no.** 231-633-2

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

**References (laws/regulations)**

- Regulation on classification, labeling and packaging of substances and mixtures (CLP) dated 16.06.2012.
- Administrative norms for pollution of the atmosphere, the latest edition, from Norwegian labour inspection authority
- Dangerous Goods regulations

**Declaration no.** 93941

**15.2. Chemical safety assessment**

Chemical safety assessment has been carried out: No

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**SECTION 16: Other information**

**Supplier's notes**

The information contained in this SDS must be made available to all those who handle the product.

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

Skin Corr 1B; H314;

**List of relevant R phrases (under headings 2 and 3).**

R34 Causes burns.

**List of relevant H-phrases (Section 2 and 3).**

H314 Causes Severe skin burns and eye damage.

**Abbreviations and acronyms used**

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

**Sources of key data used to compile the safety data sheet**

| Information which has been added, deleted or revised | New Safety Data Sheet. |
| Checking quality of information | This SDS is quality controlled by National Institute of Technology in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2008. |
| Responsible for safety data sheet | Acinor AS |
| Prepared by | National Institute of Technology as, Norway v/ Camilla M. Ormset |