1. **IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1 **Product identifiers**
   - **Product name**: Phosphate buffered saline
   - **Product Number**: 79382
   - **Brand**: Sigma

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
   - Identified uses: Laboratory chemicals, Manufacture of substances

1.3 **Details of the supplier of the safety data sheet**
   - **Company**: Sigma-Aldrich Chemie BV
     - Stationsplein 4
     - 3331 LL ZWIJNDRECHT
     - NETHERLANDS
   - **Telephone**: +31 78-620-5411
   - **Fax**: +31 78-620-5421
   - **E-mail address**: eurtechserv@sial.com

1.4 **Emergency telephone number**
   - **Emergency Phone #**: 112

2. **HAZARDS IDENTIFICATION**

2.1 **Classification of the substance or mixture**
   - Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
   - Not a hazardous substance or mixture according to EC directives 67/548/EEC or 1999/45/EC.

2.2 **Label elements**
   - The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 **Other hazards** - none

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

3.2 **Mixtures**
   - **Synonyms**: PBS
   - No components need to be disclosed according to the applicable regulations.

4. **FIRST AID MEASURES**

4.1 **Description of first aid measures**
   - **General advice**
     - Consult a physician. Show this safety data sheet to the doctor in attendance.
   - **If inhaled**
     - If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
   - **In case of skin contact**
     - Wash off with soap and plenty of water. Consult a physician.
   - **In case of eye contact**
     - Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture
Oxides of phosphorus, Hydrogen chloride gas, Potassium oxides, Sodium oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses
No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment

**Eye/face protection**
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a)</strong> Appearance</td>
<td>Form: tablet</td>
</tr>
<tr>
<td><strong>b)</strong> Odour</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>c)</strong> Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>d)</strong> pH</td>
<td>7.2 - 7.6 at 25 °C - (as aqueous solution)</td>
</tr>
<tr>
<td><strong>e)</strong> Melting/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>f)</strong> Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>g)</strong> Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td><strong>h)</strong> Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>i)</strong> Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>j)</strong> Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>k)</strong> Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>l)</strong> Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>m)</strong> Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>n)</strong> Water solubility</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>o)</strong> Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>p)</strong> Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>q)</strong> Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>r)</strong> Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td><strong>s)</strong> Explosive properties</td>
<td>no data available</td>
</tr>
</tbody>
</table>
9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Strong acids, Strong oxidizing agents

10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION
12.1 Toxicity
no data available
12.2 Persistence and degradability
no data available
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
no data available
12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION
14.1 UN number
ADR/RID: - IMDG: - IATA: -
14.2 UN proper shipping name
ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
14.4 Packaging group
ADR/RID: - IMDG: - IATA: -
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
no data available
16. OTHER INFORMATION

Further information
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