SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: PHOSPHORIC ACID 75%

Recommended use of the chemical and restrictions on use

Recommended use: Industrial chemical

Manufacturer or supplier's details

Company: Univar Solutions USA, Inc.
Address: 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)

Emergency telephone number:
Transport North America: CHEMTREC (1-800-424-9300)
CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information:
Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals: Category 1
Acute toxicity (Oral): Category 4
Skin corrosion: Category 1B
Serious eye damage: Category 1

GHS label elements

Hazard pictograms:

\[ \text{Diagram of hazard pictograms} \]

Signal word: Danger

Hazard statements:
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
Precautionary statements:

Prevention:
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous components:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2</td>
<td>Phosphoric acid</td>
<td>75 - 85</td>
</tr>
</tbody>
</table>

Any Concentration shown as a range is due to batch variation.
SECTION 4. FIRST AID MEASURES

General advice
- Move out of dangerous area.
- Consult a physician.
- Show this safety data sheet to the doctor in attendance.
- Do not leave the victim unattended.

If inhaled
- If unconscious, place in recovery position and seek medical advice.
- If symptoms persist, call a physician.

In case of skin contact
- Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- Take victim immediately to hospital.
- If on skin, rinse well with water.
- If on clothes, remove clothes.

In case of eye contact
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Continue rinsing eyes during transport to hospital.
- Keep eye wide open while rinsing.
- If eye irritation persists, consult a specialist.
- Take victim immediately to hospital.

If swallowed
- Clean mouth with water and drink afterwards plenty of water.
- Keep respiratory tract clear.
- Do NOT induce vomiting.
- Never give anything by mouth to an unconscious person.
- If symptoms persist, call a physician.
- Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media
- Dry powder
- Water may be ineffective.
- Water mist

Unsuitable extinguishing media
- High volume water jet

Specific hazards during firefighting
- Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products
- Phosphorous oxides
- Toxic fumes

Specific extinguishing methods
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Use water spray to cool unopened containers.
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Further information: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Neutralize with chalk, alkali solution or ammonia. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Advice on safe handling: Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid: Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
PHOSPHORIC ACID 75%

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
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</thead>
<tbody>
<tr>
<td>7664-38-2</td>
<td>Phosphoric acid</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>3 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 mg/m3</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

**Personal protective equipment**

- **Respiratory protection**: No personal respiratory protective equipment normally required.
- **Hand protection**
  - **Remarks**: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- **Eye protection**: Eye wash bottle with pure water, Tightly fitting safety goggles, Wear face-shield and protective suit for abnormal processing problems.
- **Skin and body protection**: Impervious clothing, Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- **Hygiene measures**: When using do not eat or drink, When using do not smoke, Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- **Appearance**: viscous
- **Colour**: clear, colorless
- **Odour**: odorless
- **Odour Threshold**: No data available
- **pH**: 1 @ 75 - 85 %
- **Freezing Point (Melting point/freezing point)**: -20 - 42.35 °C (-4 - 108.23 °F)
- **Boiling Point (Boiling point/boiling range)**: 135 - 158 °C (275 - 316 °F)
- **Flash point**: Not applicable
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Vapour pressure : 0.0285 mmHg @ 20 °C (68 °F)
Relative vapour density : 0.670AIR=1
Relative density : 1.692Reference substance: (water = 1)
Density : 1.63 g/cm³
Solubility(ies) 
Water solubility : soluble
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : Not applicable
Thermal decomposition : No data available
Viscosity 
Viscosity, dynamic : 23 mPa.s @ 40 °C (104 °F)
Viscosity, kinematic : 23 mm²/s @ 25 °C (77 °F)

SECTION 10. STABILITY AND REACTIVITY
Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.
Conditions to avoid : Extremes of temperature and direct sunlight.
Incompatible materials : Metals 
Bases 
Alcohols 
Aldehydes 
Ketones 
phenols 
Esters
SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity: Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity: Assessment: The component/mixture is minimally toxic after single contact with skin.

Skin corrosion/irritation

Product:
Remarks: Extremely corrosive and destructive to tissue.

Components:
7664-38-2:
Species: Rabbit
Result: Causes burns.

Serious eye damage/eye irritation

Product:
Remarks: May cause irreversible eye damage.

Components:
7664-38-2:
Result: Risk of serious damage to eyes.
Remarks: 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.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.
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NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Aspiration toxicity

Product:
Corrosive to the respiratory tract.

Further information

Product:
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-909-4897

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation): UN1805, PHOSPHORIC ACID SOLUTION, 8, III

IATA (International Air Transport Association): UN1805, PHOSPHORIC ACID SOLUTION, 8, III

IMDG (International Maritime Dangerous Goods): UN1805, PHOSPHORIC ACID SOLUTION, 8, III

SECTION 15. REGULATORY INFORMATION

WHMIS Classification: D1A: Very Toxic Material Causing Immediate and Serious Toxic Effects E: Corrosive Material

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Corrosive to metals
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Safety Data Sheet
PHOSPHORIC ACID 75%

Version 1.1 Revision Date: 02/11/2020

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
7664-38-2 Phosphoric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
7664-38-2 Phosphoric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know
7664-38-2 Phosphoric acid 75 - 85 %

Pennsylvania Right To Know
7664-38-2 Phosphoric acid 75 - 85 %
7732-18-5 Water 15 - 25 %

New Jersey Right To Know
7664-38-2 Phosphoric acid 75 - 85 %
7732-18-5 Water 15 - 25 %

California Prop 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
DSL: All components of this product are on the Canadian DSL
AICS: On the inventory, or in compliance with the inventory
NZIoC: On the inventory, or in compliance with the inventory
ENCS: On the inventory, or in compliance with the inventory
KECI: On the inventory, or in compliance with the inventory
PHIL: On the inventory, or in compliance with the inventory
IECSC: On the inventory, or in compliance with the inventory

SDS Number: 100000054299 10 / 12 PHOSPHORIC ACID 75%
SECTION 16. OTHER INFORMATION

NFPA:

- Health: 00
- Flammability: 01
- Special hazard:

HMIS III:

- HEALTH: 3
- FLAMMABILITY: 0
- PHYSICAL HAZARD: 0

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date: 02/11/2020

Material number:
16159617, 16145304, 16145291, 16142016, 16140707, 16140387, 16142350

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
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<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
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<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>-------------</td>
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<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
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<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
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<td>TWA</td>
<td>Time Weighted Average</td>
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<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
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<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
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<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
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<td>&lt;=</td>
<td>Less Than or Equal To</td>
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<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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