

SAFETY DATA SHEET

according to the Hazardous Products Regulations



PHOSPHORIC ACID 85%

Version	Revision Date:	SDS Number:	Date of last issue: 11/05/2022
1.4	03/18/2026	100000003916	Date of first issue: 10/22/2019

SECTION 1. IDENTIFICATION

Product Identifier : PHOSPHORIC ACID 85%
Product code : 00000000016174988
Synonyms : No data available
Other means of identification : No data available

Manufacturer or supplier's details

Company : Univar Solutions Canada Ltd.
Address : 64 Arrow Road
North York, ON, M9M 2L9
Canada

Emergency telephone number:

Local Emergency Contact : During Office hours Monday-Friday, 8.00 am - 4.30 pm (Pacific Standard Time) : 1-866-686-4827

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

Recommended use of the chemical and restrictions on use

Recommended use : Plating agents and metal surface treating agents
Acid.
Biocide_01
Industrial chemical

SECTION 2. HAZARD IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

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

GHS label elements

Hazard pictograms :



Signal word : Danger

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

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Precautionary statements

:

Prevention:

P234 Keep only in original packaging.
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:

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.
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.

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

CAS-No.	Synonyms	Chemical name	Weight percent
7664-38-2	orthophosphoric acid	Phosphoric acid	60 - 80

Actual concentration or concentration range is withheld as a trade secret
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.

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		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.
If swallowed	:	Take victim immediately to hospital. 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.
Most important symptoms and effects, both acute and delayed	:	Take victim immediately to hospital. None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Dry powder Water may be ineffective. Water mist
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire-fighting	:	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.
Further information	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment and precautions for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

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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.
- Precautions for 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.
- Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7664-38-2	Phosphoric acid	TWA	1 mg/m ³	CA AB OEL

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		STEL	3 mg/m3	CA AB OEL
		TWA	1 mg/m3	CA BC OEL
		STEL	3 mg/m3	CA BC OEL
		TWAEV	1 mg/m3	CA QC OEL
		STEV	3 mg/m3	CA QC OEL

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

- Physical State : viscous
- Colour : clear, colourless
- Odour : odourless
- 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 : No data available
- Density : No data available
- Solubility(ies) : soluble
- Water solubility : soluble
- Solubility in other solvents : No data available

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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 mm ² /s @ 25 °C (77 °F)
Particle characteristics	: No data available

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 halogenated hydrocarbons Amines Cyanides sulfides fluorides Alkalis
Hazardous decomposition products	: phosphine Oxides of phosphorus

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.

Components:

7664-38-2:

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

Skin corrosion/irritation

Product:

Result : Corrosive to skin

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

Aspiration toxicity

Product:

Corrosive to the respiratory tract.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

7664-38-2:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 3 - 3.25 pH
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates
Exposure time: 48 h
Test Type: static test

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Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

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 Univar Solutions ChemCare: 1-800-637-7922

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

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 1805
Proper shipping name : Phosphoric acid, solution
Class : 8
Packing group : III
Labels : Corrosive
Packing instruction (cargo aircraft) : 856
Packing instruction (passenger aircraft) : 852

IMDG-Code

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UN number	: UN 1805
Proper shipping name	: PHOSPHORIC ACID SOLUTION
Class	: 8
Packing group	: III
Labels	: 8
EmS Code	: F-A, S-B
Marine pollutant	: no

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

Not applicable for product as supplied.

National Regulations

TDG_ROAD

UN number	: UN 1805
Proper shipping name	: PHOSPHORIC ACID SOLUTION
Class	: 8
Packing group	: III
Labels	: 8
ERG Code	: 154
Marine pollutant	: no

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
CA. DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: not determined

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Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA QC OEL / TWA EV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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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 EHS Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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