



TOROS TARIM SAFETY DATA SHEET

Phosphoric acid

Commission Regulation (EU) 2020/878 of 18 June 2020 amending

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	Phosphoric acid
CAS No	7664-38-2
EC No	231-633-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses It is used in agricultural phosphorous fertilizer production, food industry, dentistry, pesticide production, floriculture, production of phosphate salts, tanning and polishing processes in leather, steel industry and oil industry.

1.3. Details of the supplier of the safety data sheet

Supplier	Toros Tarım Sanayi ve Ticaret A.Ş. Tekfen Tower Büyükdere Cad. No:209 34394 4. Levent Şişli / İstanbul T: +90 212 357 02 02 F: +90 212 357 02 31 www.toros.com.tr
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1.4. Emergency telephone number

Samsun Production Facilities: +90 362 256 09 80

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Corr. 1B - H314; Eye Dam. 1 - H318
Environment	Not classified.

The Full Text for all Hazard Statements are Displayed in Section 16.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

CAS No	7664-38-2
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Signal Word	Danger
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Hazard Statements

H314	Causes severe skin burns and eye damage.
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Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.



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P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

Inhalation	Acid vapours may cause irritation in throat and lungs
Skin contact	Contact with skin may cause skin burns, irritation.
Eye contact	Causes severe burns and serious damage to the eyes.
Ingestion	When ingested, it immediately causes corrosion and damage to the digestive tract.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Name	EC No.	CAS No.	Content	Classification (EC 1272/2008)
Orthophosphoric acid	231-633-2	7664-38-2	75-85 %	Skin Corr. 1B - H314

The Full Text for all Hazard Statements are Displayed in Section 16.

Composition Comments

- The data shown are in accordance with the latest EC Directives.
- Exposure limits are displayed in section 8.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Remove affected person from source of contamination. Chemical burns should be treated by a doctor. Show this safety data sheet.

Inhalation

Remove affected person from source of contamination. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Call doctor immediately.

Ingestion

DO NOT INDUCE VOMITING AND DO NOT GIVE ANYTHING TO DRINK TO AN UNCONCIOUS PERSON. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.

Skin contact

Remove affected person from source of contamination. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Get medical attention if symptoms occur.

Eye contact

Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse get medical attention.

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

Inhalation	Upper respiratory tract irritation.
Ingestion	Nausea, vomiting. Chemical burns in throat.
Skin contact	Serious irritation. Redness. May cause skin burns.



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Eye contact Blurred vision. Irritation, serious eye damage.

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

This product is not flammable. Use fire- extinguishing media suitable for the surrounding fire.

Unsuitable fire extinguishers:

No data available.

5.2. Special hazards arising from the substance or mixture

Specific hazards

In case of fire, toxic gases may be formed. Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen. Hydrogen fluoride. Fluorine compounds.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Clear fire area of all non-emergency personnel. Move container from fire area if it can be done without risk. Dike and collect extinguishing water. Dispose residues of extinguishing water in accordance with local regulations.

Protective equipment for fire-fighters

In case of fire, wear self-contained breathing apparatus and full protective clothing. Face mask, protective gloves and safety helmet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours. Avoid contact with eyes. Provide adequate ventilation. Pay attention to slippery bases and surfaces in case of spillage.

6.2. Environmental precautions

Avoid discharge into water courses or onto the ground. In case of spills or discharges to the water source, it is necessary to apply to the relevant environmental agency or other appropriate inspection centres immediately.

6.3. Methods and material for containment and cleaning up

DO NOT TOUCH THE SPILLAGES.

Large Spillages: Wear protective equipment. Stop leakage if there is no safety risk. It should be neutralized with lime or carbonate. Place in containers by absorbing vermiculite, dry sand or soil. Wash with plenty of water to clean the spillage.

Small Spillages: Absorb spillage into a non-flammable absorbent material. Transfer to a container for disposal.

6.4. Reference to other sections

For personal protection, see section 8.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.



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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid inhalation of vapours. Avoid contact with eyes. Wash hands and contaminated areas before leaving the workplace. Good personal hygiene is necessary. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices. Containers should be stored tightly closed. Avoid direct sunlight. Avoid contact with bases.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry, cool place in tightly closed original packaging. It should be stored away from combustible materials, alkalis, metals and strong bases. Storage must be grounded. Do not use glass, high density polyethylene and AISI 316 L stainless steel containers. Keep away from food, drink and animal feeding. Protect from direct sunlight.

Store away from: Strong alkalis.

Unsuitable containers: Metals.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
Phosphoric acid	TLV	---	1 mg/m ³	---	3 mg/m ³	ACGIH

TLV: Threshold Limit Value

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash, quick drench.

Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

No special equipment required under normal conditions. If vapour concentration is higher than the exposure limit, proper respiratory protective equipment should be used.

Hand protection

Wear suitable protective gloves when there is a risk of skin contact. Neoprin, nitrile, polyethylene or PVC.

The most appropriate glove should be selected in consultation with the glove supplier. The glove supplier will be able to provide information about the permeability / deterioration time of the glove material.

Eye protection

Appropriate safety goggles (EN 166) should be used if there is a risk of contact with eyes.

Hygiene measures

Wash hands after contact. Change work clothing daily before leaving work place.

Wash contaminated clothing before reuse. When using do not eat, drink or smoke.



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Skin protection

Use proper protective gloves when there is risk of skin contact (PVC).

Environmental Exposure Controls

Please act in accordance with local and national laws.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid
Colour	White, clear
Odour	Weak acid smell
Solubility	Soluble in water.
Melting Point	103.4 °C (% 75 H ₃ PO ₄), 4.6°C (% 80 H ₃ PO ₄), 21°C (% 85 H ₃ PO ₄), 42.4 °C (% 100 H ₃ PO ₄)
Initial boiling point and range	133 °C 1013 hPa (% 75 H ₃ PO ₄)
Flash point	No data available
Evaporation rate	No data available
Vapor pressure @ 20 ° C	3,8 Pa
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Bulk density	No data available
Density	1,57 g/cm ³ (% 75 H ₃ PO ₄), 1,63 g/cm ³ (% 80 H ₃ PO ₄), 1,69 g/cm ³ (% 85 H ₃ PO ₄)
pH-Value	<1(undiluted)
Oxidative properties	No data available
Explosive properties	Not explosive.

Not used as product specification.

9.2. Other information

No information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Exothermic reaction occurs when reacts with water.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid exposure to high temperatures or direct sunlight.



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10.5. Incompatible materials

Bases, aluminum, copper, brass, bronze, metal oxides and metal alloys.

10.6. Hazardous decomposition products

Fluoride compounds are released from heating of the wet process acid, phosphorus oxides are released from thermal decomposition and hydrogen gas is released from reaction with metals.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Oral (rat) : LD 50 1530 mg /kg b.w

Dermal (rabbit) : LD 50 2740 mg /kg b.w

Skin corrosion/irritation

Causes severe skin burns.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation:

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

STOT-single exposure

Based on available data the classification criteria are not met.

STOT-repeated exposure

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Reproductive Toxicity

Based on available data the classification criteria are not met.

Aspiration Toxicity

Based on available data the classification criteria are not met.

11.2. Information on other hazards

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Based on available data the classification criteria are not met. The product may affect the acidity (pH value) of the aquatic environment so there is risk of danger to aquatic organisms.

12.2. Persistence and degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

It causes eutrophication by surrounding surface water.

12.4. Mobility in soil

Soluble in water. High mobility in soil.



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12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Avoid access to water sources and channels. The product packaging must be completely emptied and must be disposed of within the framework of legislation.

SECTION 14: TRANSPORT INFORMATION

General

This substance/mixture may be classified as hazardous. However, it may be dispatched as non-hazardous substance in cases when the packaging is under limited / exceptional quantity. Please follow the relevant regulations.

14.1. UN number or ID number

UN No. (ADR/RID/ADN)	1805
UN No. (IMDG)	1805
UN No. (ICAO)	1805

14.2. UN proper shipping name

Proper Shipping Name PHOSPHORIC ACID, SOLUTION

14.3. Transport hazard class(es)

ADR/RID/ADN Class	8
ADR/RID/ADN Class	Class 8: Corrosive substances
ADR Label No.	8
IMDG Class	8
ICAO/IATA Class	8
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO/ IATA Packing group	III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.



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14.6. Special precautions for user

Limited Quantities	5L
EMS	F-A, S-B
Emergency Action Code	2R
Hazard No. (ADR)	80
Tunnel Restriction Code	(E)

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

- Commission Regulation (EU) 2020/878 of 18 June 2020.
- Health and Safety at Work etc. Act 1974 (as amended).
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Restrictions (Annex XVII Regulation 1907/2006)

There are no known restrictions on the use of this product.

Seveso Directive - Control of major accident hazards

Not relevant.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

EC No: European Community number

CAS: Chemical Abstracts Service.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Persistent and Very Bioaccumulative.

SEA: Classification, labeling, packaging regulation

BHOT: Specific Target Organ Toxicity

Information Sources

This SDS is written based on the information received from rawmaterial supplier.

European Chemicals Agency (ECHA)



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Revision Comments

Revised in compliance with current regulations.

Hazard Statements in Full

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Issued By

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Issued Note

This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect prepared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product owner

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