

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

1.1. Product identifier

Product form	: Mixture
Product name	: Phosphoric acid 85%
EC Index-No.	: 015-011-00-6
EC-No.	: 231-633-2
CAS-No.	: 7664-38-2
Type of product	: Solution
Formula	: H ₃ PO ₄
Synonyms	: DESOXYDEEN / orthophosphoric acid, conc=75%, aqueous solution

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Water treatment

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Bredox B.V.
Wetering 19
6002 SM Weert - Netherlands
T +31 495 457901 - F +31 495 457970
sales@bredox.nl - www.bredox.nl

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1B H314

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

CLP Signal word

: Danger

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P260 - Do not breathe mist.
P280 - Wear protective gloves, eye protection, face protection, protective clothing.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.htm). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Do not give chemical antidote.

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

Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of lung oedema.
Symptoms/effects after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/effects after eye contact	: Corrosion of the eye tissue.
Symptoms/effects after ingestion	: Burns to the gastric/intestinal mucosa. Nausea. Abdominal pain. Blood in vomit. AFTER INGESTION OF HIGH QUANTITIES: Shock.
Chronic symptoms	: No effects known.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Non-flammable. INDIRECT FIRE HAZARD: Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire	: On burning: release of toxic and corrosive gases/vapours (phosphorus oxides).

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Face-shield. Corrosion-proof suit. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit.
Emergency procedures	: Mark the danger area. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

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6.3. Methods and material for containment and cleaning up

For containment

: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain. Heat exposure: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

Methods for cleaning up

: Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Neutralize leftovers with slaked lime or soda ash. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain.

Hygiene measures

: Observe strict hygiene. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature

: 0 - 35 °C

Heat and ignition sources

: KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage

: KEEP SUBSTANCE AWAY FROM: (strong) bases, oxidizing agents.

Storage area

: Store in a dark area. Keep locked up. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements.

Special rules on packaging

: SPECIAL REQUIREMENTS: closing, clean, correctly labelled, meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials

: MATERIAL TO AVOID: metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Materials for protective clothing:

GIVE GOOD RESISTANCE: nitrile rubber, PVC

Hand protection:

Gloves

Eye protection:

Face shield

Skin and body protection:

Corrosion-proof clothing

Respiratory protection:

Full face mask with filter type B at conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Liquid

Appearance

: Liquid.

Molecular mass

: 98 g/mol

Colour

: Light green.

Odour

: Odourless.

Odour threshold

: No data available

pH

: 0 - 0.5 (20 °C)

Relative evaporation rate (butylacetate=1)

: No data available

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.5 (20 °C)
Density	: 1500 kg/m ³ (20 °C)
Solubility	: Soluble in water. Water: complete
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Minimum ignition energy	: Not applicable
VOC content	: Not applicable (inorganic)
Other properties	: Clear. Acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with many compounds e.g.: with (some) bases and with (strong) oxidizers.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Reacts on exposure to temperature rise with (some) metals: release of highly flammable gases/vapours (hydrogen).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
ATE CLP (oral)	4400 mg/kg bodyweight
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 0 - 0.5 (20 °C)
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 0 - 0.5 (20 °C)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Causes severe skin burns. Causes serious eye damage.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Slightly harmful to crustacea. Slightly harmful to fishes. May cause eutrophication. Slightly harmful to algae. pH shift.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

Phosphoric acid 85% (7664-38-2)

Persistence and degradability	Biodegradability: not applicable.
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12.3. Bioaccumulative potential

Phosphoric acid 85% (7664-38-2)

Bioaccumulative potential	No test data of component(s) available.
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12.4. Mobility in soil

Phosphoric acid 85% (7664-38-2)

Ecology - soil	Highly mobile in soil.
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12.5. Results of PBT and vPvB assessment

Phosphoric acid 85% (7664-38-2)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	: 15 01 10* - packaging containing residues of or contaminated by dangerous substances 06 01 04* - phosphoric and phosphorous acid

SECTION 14: Transport information






In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1805	1805	1805	1805	1805
14.2. UN proper shipping name				
Phosphoric acid, solution	phosphoric acid solution	Phosphoric acid, solution	Phosphoric acid, solution	Phosphoric acid, solution
Transport document description				
UN 1805 Phosphoric acid, solution, 8, III, (E)	UN 1805 phosphoric acid solution, 8, III	UN 1805 Phosphoric acid, solution, 8, III	UN 1805 Phosphoric acid, solution, 8, III	UN 1805 Phosphoric acid, solution, 8, III
14.3. Transport hazard class(es)				
8	8	8	8	8

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14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Subject
 Classification code (ADR) : C1
 Hazard identification number (Kemler No.) : 80
 Orange plates :



Tunnel restriction code (ADR) : E

Transport by sea

Transport regulations (IMDG) : Subject
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-B

Air transport

Transport regulations (IATA) : Subject to the provisions

Inland waterway transport

Classification code (ADN) : C1
 Carriage permitted (ADN) : T

Rail transport

Transport regulations (RID) : Subject
 Classification code (RID) : C1

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
 Contains no substance on the REACH candidate list
 Contains no REACH Annex XIV substances

VOC content : Not applicable (inorganic)
 Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

H314	Causes severe skin burns and eye damage.
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SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.