

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Product name : PHOS
 Product code : 508
 Type of product : Acids
 Product group : Mixture

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

Main use category : Industrial use, Professional use
 Industrial/Professional use spec : Industrial
 For professional use only
 Use of the substance/mixture : Descaler

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Clover Chemicals Ltd
 Clover House
 Macclesfield Road
 SK23 7DQ Whaley Bridge - United Kingdom
 T 01663 733114 - F 01663 733115
info@cloverchemicals.com - www.cloverchemicals.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1B H314

Full text of hazard classes and 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

Hazardous ingredients

: Phosphoric Acid

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

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Precautionary statements (CLP) : P102 - Keep out of reach of children.
P280 - Wear eye protection, protective gloves.
P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
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.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing.

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

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric Acid	(CAS-no) 7664-38-2 (Einecs nr) 231-633-2 (EG annex nr) 015-011-00-6	10 – 30	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Phosphoric Acid	(CAS-no) 7664-38-2 (Einecs nr) 231-633-2 (EG annex nr) 015-011-00-6	(10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) Skin Irrit. 2, H315 (25 ≤ C < 100) Skin Corr. 1B, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Acute effects inhalation : May cause shortness of breath, tightness of the chest, a sore throat and cough.

Acute effects skin : Causes severe burns.

Acute effects eyes : Causes serious eye burns. Risk of serious damage to eyes.

Acute effects oral route : Burns of the upper digestive and respiratory tracts. Blood in vomit.

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 : Water.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.
Incompatible products : Strong bases.
Incompatible materials : Direct sunlight.
Packaging materials : polyethylene.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric Acid (7664-38-2)

EU - Occupational Exposure Limits

Local name	Orthophosphoric acid
IOELV TWA (mg/m ³)	1 mg/m ³
IOELV STEL (mg/m ³)	2 mg/m ³

United Kingdom - Occupational Exposure Limits

Local name	Orthophosphoric acid
WEL TWA (mg/m ³)	1 mg/m ³
WEL STEL (mg/m ³)	2 mg/m ³

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Safety glasses. Chemical goggles or safety glasses

Protective equipment:

Acid resistant clothing

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Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Physical state/form	: Liquid.
Colour	: Colourless.
Odour	: slight.
Odour threshold	: No data available
pH	: 1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point/range	: -1 °C
Freezing point	: No data available
Boiling point/Boiling range	: 102 °C
Flash point	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.143 – 1.155
Solubility	: Soluble in water.
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

VOC content	: 0 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases.

10.6. Hazardous decomposition products

fume.

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

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Phosphoric Acid (7664-38-2)

LD50 oral rat	1530 mg/kg
ATE CLP (oral)	1530 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns. pH: 1
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 1
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

PHOS

Persistence and degradability	Biodegradable.
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12.3. Bioaccumulative potential

PHOS

Bioaccumulative potential	No bioaccumulation.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

PHOS

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

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products : Avoid release to the environment.




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SECTION 14: Transport information

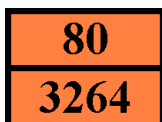
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
14.1. UN number		
UN 3264	UN 3264	UN 3264
14.2. UN proper shipping name		
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	Corrosive liquid, acidic, inorganic, n.o.s.
Transport document description		
UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric Acid 25%), 8, III, (E)	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric Acid 25%), 8, III	UN 3264 Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric Acid 25%), 8, III
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group		
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
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C1
Special provisions (ADR) : 274
Limited quantities (ADR) : 5I
Packing instructions (ADR) : P001, IBC03, LP01, R001
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP1, TP28
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel code : E
EAC code : 2X
APP code : B

Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03

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Air transport

PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3, A803

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

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Corr. 1B	H314	Calculation method
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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.