

*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$**

Version 6.1

Print Date 2020/01/15

Revision date / valid from 2020/01/15

**MSDS code: MPHA679**

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

**1.1. Product identifier**

Trade name : PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$   
 Substance name : phosphoric acid  
 Index-No. : 015-011-00-6  
 CAS-No. : 7664-38-2  
 EC-No. : 231-633-2  
 EU REACH-Reg. No. : 01-2119485924-24-xxxx

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

Use of the Substance/Mixture : Identified use: See table in front of appendix for a complete overview of identified uses.  
 Uses advised against : At this moment we have not identified any uses advised against

**1.3. Details of the supplier of the safety data sheet**

Company : Brenntag UK Limited  
 Alpha House, Lawnswood Business Park  
 GB LS16 6QY Leeds  
 Telephone : +44 (0) 113 3879 200  
 Telefax : +44 (0) 113 3879 280  
 E-mail address : msds@brenntag.co.uk

**1.4. Emergency telephone number**

Emergency telephone number : Emergency only telephone number (open 24 hours):  
 +44 (0) 1865 407333 (N.C.E.C. Culham)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Corrosive to metals	Category 1	---	H290

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Acute toxicity (Oral)	Category 4	---	H302
Skin corrosion	Sub-category 1B	---	H314
Serious eye damage	Category 1	---	H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Most important adverse effects**

Human Health : See section 11 for toxicological information.  
 Physical and chemical hazards : See section 9/10 for physicochemical information.  
 Potential environmental effects : See section 12 for environmental information.

**2.2. Label elements****Labelling according to Regulation (EC) No 1272/2008**

Hazard symbols : 

Signal word : Danger

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

Precautionary statements

Prevention : P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response : 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.  
 P390 Absorb spillage to prevent material damage.

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### Hazardous components which must be listed on the label:

- phosphoric acid

### 2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Chemical nature : Aqueous solution

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
<b>phosphoric acid</b>			
Index-No. : 015-011-00-6	$\geq 25 - \leq 100$	Met. Corr.1	H290
CAS-No. : 7664-38-2		Acute Tox.4	H302
EC-No. : 231-633-2		Skin Corr.1B	H314
EU REACH-Reg. No. : 01-2119485924-24-xxxx		Eye Dam.1	H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General advice : Take off all contaminated clothing immediately. If symptoms call a physician.
- If inhaled : In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- In case of skin contact : Wash off immediately with soap and plenty of water. Call a physician immediately.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
Effects	: Extremely corrosive and destructive to tissue. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. See Section 11 for more detailed information on health effects and symptoms.

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

Treatment	: Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media	: Water spray, foam, dry powder or CO <sub>2</sub> .
Unsuitable extinguishing media	: High volume water jet

**5.2. Special hazards arising from the substance or mixture**

Specific hazards during firefighting	: Gives off hydrogen by reaction with metals. Risk of explosion. Decomposes on heating.
Hazardous combustion products	: Oxides of phosphorus, phosphine, The formation of caustic fumes is possible.

**5.3. Advice for firefighters**

Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
Specific extinguishing methods	: Control smoke with water spray.
Further advice	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	: Keep away unprotected persons. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.
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### 6.2. Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

### 6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal.

Further information : Treat recovered material as described in the section "Disposal considerations".

### 6.4. Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on personal protective equipment.  
See Section 13 for waste treatment information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol are released. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in an area equipped with acid resistant flooring. Store in original container. Suitable materials for containers: Polypropylene; polyethylene; Unsuitable materials for containers: Metals

Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection. Gives off hydrogen by reaction with metals. Risk of explosion.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Keep in a well-ventilated place. Avoid moisture. Product is hygroscopic.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Incompatible with bases.

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### 7.3. Specific end use(s)

Specific use(s) : Identified use: See table in front of appendix for a complete overview of identified uses.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Component:	phosphoric acid	CAS-No. 7664-38-2
<b>Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)</b>		

DNEL		
Workers, Acute - local effects, Inhalation	:	2 mg/m <sup>3</sup>
DNEL		
Workers, Long-term - local effects, Inhalation	:	1 mg/m <sup>3</sup>
DNEL		
Workers, Long-term - systemic effects, Inhalation	:	10.7 mg/m <sup>3</sup>
DNEL		
Consumers, Long-term - local effects, Inhalation	:	0.36 mg/m <sup>3</sup>
DNEL		
Consumers, Long-term - systemic effects, Inhalation	:	4.57 mg/m <sup>3</sup>
DNEL		
Consumers, Long-term - systemic effects, Skin contact	:	0.1 mg/kg bw/day

#### Predicted No Effect Concentration (PNEC)

No PNEC value was derived. :

#### Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), as amended, Short Term Exposure Limit (STEL):  
2 mg/m<sup>3</sup>

UK. EH40 Workplace Exposure Limits (WELs), as amended, Time Weighted Average (TWA):  
1 mg/m<sup>3</sup>

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Time Weighted Average (TWA):

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1 mg/m<sup>3</sup>  
Indicative

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Short Term Exposure Limit (STEL):

2 mg/m<sup>3</sup>  
Indicative

ELV (IE), Time Weighted Average (TWA):

1 mg/m<sup>3</sup>  
Indicative OELV

ELV (IE), Short Term Exposure Limit (STEL):

2 mg/m<sup>3</sup>, (15 minutes)  
Indicative OELV

## 8.2. Exposure controls

### Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

### Personal protective equipment

#### *Respiratory protection*

Advice : Required, if exposure limit is exceeded (e.g. OEL).  
Respiratory protection complying with EN 141.  
Recommended Filter type:  
Combination filter: B-P2

#### *Hand protection*

Advice : Protective gloves complying with EN 374.  
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.  
Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Protective gloves should be replaced at first signs of wear.

Material : Natural Rubber  
Break through time :  $\geq 8$  h  
Glove thickness : 0.5 mm

Material : polychloroprene  
Break through time :  $\geq 8$  h  
Glove thickness : 0.5 mm

Material : Nitrile rubber

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Break through time :  $\geq 8$  h  
Glove thickness : 0.35 mm

Material : butyl-rubber  
Break through time :  $\geq 8$  h  
Glove thickness : 0.5 mm

Material : Fluorinated rubber  
Break through time :  $\geq 8$  h  
Glove thickness : 0.4 mm

Material : Polyvinylchloride  
Break through time :  $\geq 8$  h  
Glove thickness : 0.5 mm

*Eye protection*

Advice : Tightly fitting safety goggles  
Face-shield

*Skin and body protection*

Advice : Acid resistant protective clothing.

**Environmental exposure controls**

General advice : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
If material reaches soil inform authorities responsible for such cases.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Form : liquid  
Colour : colourless  
Odour : odourless  
Odour Threshold : Not applicable  
pH :  $< 1$  ( 20 °C)  
Freezing point/range : -11.8 °C 30% solution  
-41.9 °C 50% solution  
-20 °C 75% solution



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	4 °C 80% solution 7 °C 81.5% solution 21 °C 85% solution
Boiling point/boiling range	: 101.8 °C 30% solution 108 °C 50% solution 135 °C 75% solution 150 °C 80% solution 152 °C 81.5% solution 158 °C 85% solution
Flash point	: Not applicable
Evaporation rate	: not determined
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: 0.04 hPa (20 °C) applies to anhydrous substance
Relative vapour density	: no data available
Density	: 1.17 g/cm <sup>3</sup> (20 °C) 30% solution 1.33 g/cm <sup>3</sup> (20 °C) 50% solution 1.57 g/cm <sup>3</sup> (20 °C) 75% solution 1.68 g/cm <sup>3</sup> (20 °C) 85% solution
Water solubility	: completely miscible
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: 2.0 - 32 mPa.s (30 °C)
Viscosity, kinematic	: no data available
Explosive properties	: EU legislation: Not explosive
Explosivity	: May release hydrogen by reaction with metals.
Oxidizing properties	: no data available

**9.2. Other information**

Corrosion to metals	: Corrosive to metals
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**SECTION 10: Stability and reactivity**

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$** **10.1. Reactivity**

Advice : No decomposition if used as directed.

**10.2. Chemical stability**

Advice : Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous reactions : Gives off hydrogen by reaction with metals. Risk of explosion.

**10.4. Conditions to avoid**

Conditions to avoid : Heat, flames and sparks.

Thermal decomposition : no data available

**10.5. Incompatible materials**

Materials to avoid : Strong oxidizing agents, alkalis, Metals, Bases

**10.6. Hazardous decomposition products**

Hazardous decomposition products : Fire may cause evolution of: phosphine, Oxides of phosphorus, Combustion produces caustic fumes.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Data for the product****Acute toxicity****Oral**

Acute toxicity estimate : 500 - 2000 mg/kg ) (Calculation method) Classified based on the calculation method according to CLP regulation.

**Inhalation**

Not classified based on the calculation method according to CLP regulation.

**Dermal**

Not classified based on the calculation method according to CLP regulation.

**Irritation****Skin**

Result : Classified based on the calculation method according to CLP regulation.

**Eyes**

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Result : Classified based on the calculation method according to CLP regulation.

**Sensitisation**

Result : Not classified based on the calculation method according to CLP regulation.

**CMR effects****CMR Properties**

Carcinogenicity : Not classified based on the calculation method according to CLP regulation.

Mutagenicity : Not classified based on the calculation method according to CLP regulation.

Reproductive toxicity : Not classified based on the calculation method according to CLP regulation.

**Specific Target Organ Toxicity****Single exposure**

Remarks : Not classified based on the calculation method according to CLP regulation.

**Repeated exposure**

Remarks : Not classified based on the calculation method according to CLP regulation.

**Other toxic properties****Repeated dose toxicity**

no data available

**Aspiration hazard**

Not applicable,

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Acute toxicity****Oral**

No valid data available.

**Inhalation**

LC50 : 850 mg/l (Rat; 2 h)

**Dermal**

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LD50 : 2740 mg/kg (Rabbit)

**Irritation****Skin**

Result : corrosive effects (Rabbit; 24 h)

**Eyes**

Result : corrosive effects (Rabbit)

**Sensitisation**

Result : no data available

**CMR effects****CMR Properties**

Carcinogenicity : It is not considered carcinogenic.  
 Mutagenicity : In vitro tests did not show mutagenic effects  
 Teratogenicity : Did not show teratogenic effects in animal experiments.  
 Reproductive toxicity : Animal testing did not show any effects on fertility.

**Genotoxicity in vitro**

Result : negative (Bacterial Reverse Mutation Test; Salmonella typhimurium; with and without metabolic activation) (OECD Test Guideline 471)  
 negative (Bacterial Reverse Mutation Test; Escherichia coli; with and without metabolic activation) (OECD Test Guideline 471)  
 negative (Chromosome aberration test in vitro; Human lymphocytes; with and without metabolic activation) (OECD Test Guideline 473)  
 negative (In vitro gene mutation study in mammalian cells; mouse lymphoma cells; with and without metabolic activation) (OECD Test Guideline 476)

**Teratogenicity**

NOAEL :  $\geq 410$  mg/kg bw/day  
 Maternal NOAEL :  $\geq 410$  mg/kg bw/day  
 Develop. (Rat, wistar)(Oral; 4.1, 19.0, 88.3, 410.0 mg/kg)(OECD Test Guideline 414)No adverse effectsRead-across (Analogy)

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$** **Reproductive toxicity**

NOAEL F1 :  $\geq 500$  mg/kg bw/day  
(Rat, Sprague-Dawley, male and female)(Oral; 0, 125, 250, 500 mg/kg bw/day)(OECD Test Guideline 422)

**Specific Target Organ Toxicity****Single exposure**

Remarks : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Repeated exposure**

Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Other toxic properties****Repeated dose toxicity**

NOAEL : 250 mg/kg bw/day  
(Rat)(Oral; 90-day) (OECD Test Guideline 422)

**Aspiration hazard**

Not applicable,

**SECTION 12: Ecological information****12.1. Toxicity**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Acute toxicity****Fish**

LC50 : 3 - 3.25 mg/l (Lepomis macrochirus; 96 h)

**Toxicity to daphnia and other aquatic invertebrates**

EC50 :  $> 100$  mg/l (Daphnia magna (Water flea); 48 h) (static test; OECD

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Test Guideline 202)

**algae**

NOEC : 100 mg/l (Desmodesmus subspicatus; 72 h) (static test; End point: Growth rate; OECD Test Guideline 201)  
 EC50 : > 100 mg/l (Desmodesmus subspicatus; 72 h) (static test; End point: Growth rate; OECD Test Guideline 201)

**Bacteria**

EC50 : > 1000 mg/l (activated sludge; 3 h) (OECD Test Guideline 209)

**12.2. Persistence and degradability**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Persistence and degradability****Persistence**

Result : (Related to: Water) Inorganic product which is not removable from water by biological processes.

**Biodegradability**

Result : The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Bioaccumulation**

Result : Not relevant

**12.4. Mobility in soil**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Mobility**

Water : The product is water soluble.  
 Air : Low volatile liquid

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**12.5. Results of PBT and vPvB assessment**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Results of PBT and vPvB assessment**

Result : The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

**12.6. Other adverse effects**

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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**Additional ecological information**

Result : Harmful effects to aquatic organisms also due to pH-shift. Solutions with low pH-value must be neutralized before discharge.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

**SECTION 14: Transport information**
**14.1. UN number**

1805

**14.2. UN proper shipping name**

**ADR** : PHOSPHORIC ACID, SOLUTION  
**RID** : PHOSPHORIC ACID, SOLUTION  
**IMDG** : PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es)**

ADR-Class : 8  
 (Labels; Classification Code; Hazard 8; C1; 80; (E)

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Identification Number; Tunnel restriction code)  
 RID-Class : 8  
 (Labels; Classification Code; Hazard Identification Number) : 8; C1; 80  
 IMDG-Class : 8  
 (Labels; EmS) : 8; F-A, S-B

### 14.4. Packaging group

ADR : III  
 RID : III  
 IMDG : III

### 14.5. Environmental hazards

Environmentally hazardous according to ADR : no  
 Environmentally hazardous according to RID : no  
 Marine Pollutant according to IMDG-Code : no

### 14.6. Special precautions for user

Not applicable.

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

IMDG : Not applicable.

## SECTION 15: Regulatory information

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

#### Data for the product

EU. REACH, Annex XVII, : Point Nos.: , 3; Listed  
 Marketing and Use  
 Restrictions (Regulation  
 1907/2006/EC)

<b>Component:</b>	<b>phosphoric acid</b>	<b>CAS-No. 7664-38-2</b>
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EU. Regulation EU No. : ; The substance/mixture does not fall under this legislation.  
 649/2012 concerning the  
 export and import of  
 dangerous chemicals

EU. REACH, Annex XVII, : Point Nos.: , 3; Listed  
 Marketing and Use  
 Restrictions (Regulation



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EU. Regulation No : EC Number: , 231-633-2; Listed  
1451/2007 [Biocides],  
Annex I, OJ (L 325)

EU. Directive : ; The substance/mixture does not fall under this legislation.  
2012/18/EU (SEVESO  
III) Annex I

**Notification status  
phosphoric acid:**

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
EINECS	YES	231-633-2
ENCS (JP)	YES	(1)-422
IECSC	YES	
ISHL (JP)	YES	(1)-422
KECI (KR)	YES	KE-27427
NZIOC	YES	HSR001545
NZIOC	YES	HSR001571
PICCS (PH)	YES	
TSCA	YES	

**15.2. Chemical safety assessment**

A Chemical Safety Assessment has been carried out for this substance.

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

**Abbreviations and Acronyms**

<b>BCF</b>	bioconcentration factor
<b>BOD</b>	biochemical oxygen demand
<b>CAS</b>	Chemical Abstracts Service
<b>CLP</b>	Classification, Labelling and Packaging

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<b>CMR</b>	carcinogenic, mutagenic or toxic to reproduction
<b>COD</b>	chemical oxygen demand
<b>DNEL</b>	derived no-effect level
<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances
<b>ELINCS</b>	European List of Notified Chemical Substances
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>LC50</b>	median lethal concentration
<b>LOAEC</b>	lowest observed adverse effect concentration
<b>LOAEL</b>	lowest observed adverse effect level
<b>LOEL</b>	lowest observed effect level
<b>NLP</b>	no-longer polymer
<b>NOAEC</b>	no observed adverse effect concentration
<b>NOAEL</b>	no observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	occupational exposure limit
<b>PBT</b>	persistent, bioaccumulative and toxic
<b>REACH Auth. No.:</b>	REACH Authorisation Number
<b>REACH AuthAppC. No.</b>	REACH Authorisation Application Consultation Number
<b>PNEC</b>	predicted no-effect concentration
<b>STOT</b>	specific target organ toxicity
<b>SVHC</b>	substance of very high concern
<b>UVCB</b>	substance of unknown or variable composition, complex reaction products or biological materials
<b>vPvB</b>	very persistent and very bioaccumulative

**Further information**

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and

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does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.

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No.	Short title	Main User Group (SU)	Sector of Use (SU)	Product Category (PC)	Process Category (PROC)	Environmental Release Category (ERC)	Article Category (AC)	Specified
1	Industrial use	3	NA	NA	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 14, 15	2, 3, 4, 6a, 6b, 6d	NA	ES1460
2	Professional use	22	NA	9a, 9b, 12, 14, 15, 31, 35, 37, 38	8a, 8b, 9, 10, 11, 13, 15, 19	8a, 8b, 8c, 8e	NA	ES1470
3	Consumer use	21	NA	12, 31, 35, 38, 39	NA	8a, 8b, 8d, 8e	NA	ES1513

## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

### 1. Short title of Exposure Scenario 1: Industrial use

Main User Groups	SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Process categories	<p>PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions</p> <p>PROC2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition</p> <p>PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)</p> <p>PROC7: Industrial spraying</p> <p>PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities</p> <p>PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities</p> <p>PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC10: Roller application or brushing</p> <p>PROC13: Treatment of articles by dipping and pouring</p> <p>PROC14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC15: Use as laboratory reagent</p>
Environmental Release Categories	<p>ERC2: Formulation of preparations</p> <p>ERC3: Formulation in materials</p> <p>ERC4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC6b: Industrial use of reactive processing aids</p> <p>ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>
Activity	Note: this Exposure Scenario is only relevant for an appropriated use according to the quality grade of the substance delivered

### 2.1 Contributing scenario controlling environmental exposure for: ERC2, ERC3, ERC4, ERC6a, ERC6b, ERC6d

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 %.
Technical conditions and measures at process level to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Soil	Install a retention tank
		Prevent environmental discharge consistent with regulatory requirements. Council Directive 96/61/EC concerning integrated pollution prevention and control and national regulations concerning phosphates in industrial wastewater have to be followed to minimise the risk of eutrophication due to phosphate releases Provide regular control of specimens / pH May cause eutrophication at very low concentration
Conditions and measures related to external treatment of waste for disposal	Waste treatment	Neutralize contaminated cleaning water prior to disposal (pH 6 to 9)

### 2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC5, PROC14, PROC15

Product characteristics	Concentration of the Substance in	Covers concentrations more than 25%
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**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$**

	Mixture/Article	
	Physical Form (at time of use)	liquid
Frequency and duration of use	Frequency of use	> 4 hours/day
Other operational conditions affecting workers exposure	Indoor use	
Technical conditions and measures to control dispersion from source towards the worker	Use in semi-automated and predominantly enclosed filling lines. Drain down and flush system prior to equipment opening or maintenance. Avoid mist, vapours and spray production	
	Provide local exhaust ventilation (LEV). (Efficiency: > 90 %)(PROC2, PROC3, PROC4, PROC5, PROC14, PROC15)	
Organisational measures to prevent /limit releases, dispersion and exposure	Ensure that eyewash stations and safety showers are close to the workstation location. Employees must be trained in the proper use of PPE, and when to use it	
Conditions and measures related to personal protection, hygiene and health evaluation	Chemical resistant goggles must be worn. or Safety glasses with side shields conforming to EN166 Wear chemically resistant gloves. Respiratory protection is not necessary if room is well ventilated. If no adequate ventilation is available: Respiratory protection complying with EN 141. Wear a half mask respirator according to standard EN 405 Protective clothing Impervious footwear must be worn	
	Wear respiratory protection. (Efficiency: > 75 %)(PROC3, PROC4, PROC5, PROC14, PROC15)	

**2.3 Contributing scenario controlling worker exposure for: PROC7, PROC8a, PROC8b, PROC10, PROC13**

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 %.
	Physical Form (at time of use)	liquid
Frequency and duration of use	Frequency of use	> 4 hours/day
Other operational conditions affecting workers exposure	Indoor use	
Technical conditions and measures to control dispersion from source towards the worker	Use in semi-automated and predominantly enclosed filling lines. Drain down and flush system prior to equipment opening or maintenance. Avoid mist, vapours and spray production	
	Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure. (Efficiency: 99 %)(PROC7)	
	Provide local exhaust ventilation (LEV). (Efficiency: > 50 %)(PROC8a, PROC8b, PROC10)	
Organisational measures to prevent /limit releases, dispersion and exposure	Ensure that eyewash stations and safety showers are close to the workstation location. Employees must be trained in the proper use of PPE, and when to use it	
Conditions and measures related to personal protection, hygiene and health evaluation	Chemical resistant goggles must be worn. or Safety glasses with side shields conforming to EN166 Wear chemically resistant gloves. Respiratory protection is not necessary if room is well ventilated. If no adequate ventilation is available: Respiratory protection complying with EN 141. Wear a half mask respirator according to standard EN 405 Protective clothing Impervious footwear must be worn	

## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

### 3. Exposure estimation and reference to its source

#### Environment

No exposure assessment presented for the environment.

#### Workers

PROC3, PROC4, PROC5, PROC14, PROC15: Tier 1 MEASE

PROC1, PROC2, PROC7, PROC8a, PROC8b, PROC10, PROC13: Advanced REACH Tool (ART model)

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC1	---	Inhalation worker exposure	0.04mg/m <sup>3</sup>	0.04
PROC1	---	Dermal worker exposure	---	0.04
PROC2	---	Inhalation worker exposure	0.401mg/m <sup>3</sup>	0.401
PROC2	---	Dermal worker exposure	---	0.401
PROC3	---	Inhalation worker exposure	0.301mg/m <sup>3</sup>	0.301
PROC3	---	Dermal worker exposure	---	0.301
PROC4, PROC5, PROC14, PROC15	---	Inhalation worker exposure	0.501mg/m <sup>3</sup>	0.501
PROC4, PROC5, PROC14, PROC15	---	Dermal worker exposure	---	0.501
PROC7	---	Inhalation worker exposure	0.68mg/m <sup>3</sup>	0.68
PROC7	---	Dermal worker exposure	---	0.68
PROC8a, PROC8b	---	Inhalation worker exposure	0.77mg/m <sup>3</sup>	0.77
PROC8a, PROC8b	---	Dermal worker exposure	---	0.77
PROC10	---	Inhalation worker exposure	0.86mg/m <sup>3</sup>	0.86
PROC10	---	Dermal worker exposure	---	0.86
PROC13	---	Inhalation worker exposure	0.017mg/m <sup>3</sup>	0.017
PROC13	---	Dermal worker exposure	---	0.017

Dermal exposure is limited due to the corrosive property of the substance.

### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Guidance is based on assumed operating conditions which may not be applicable to all sites. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Only properly trained persons shall make use of scaling methods while checking whether the OC and RMM are within the boundaries set by the ES

For further information on the assessment method, see: <http://www.ebrc.de/mease.html>

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$**

**Additional good practice advice beyond the REACH Chemical Safety Assessment**

Assumes a good basic standard of occupational hygiene is implemented.



## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

### 1. Short title of Exposure Scenario 2: Professional use

Main User Groups	SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Chemical product category	PC9a: Coatings and paints, thinners, paint removers PC9b: Fillers, putties, plasters, modelling clay PC12: Fertilizers PC14: Metal surface treatment products, including galvanic and electroplating products PC15: Non-metal-surface treatment products PC31: Polishes and wax blends PC35: Washing and cleaning products PC37: Water treatment chemicals PC38: Welding and soldering products (with flux coatings or flux cores.), flux products
Process categories	PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC11: Non industrial spraying PROC13: Treatment of articles by dipping and pouring PROC15: Use as laboratory reagent PROC19: Hand-mixing with intimate contact and only PPE available
Environmental Release Categories	ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems ERC8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC8e: Wide dispersive outdoor use of reactive substances in open systems
Activity	Note: this Exposure Scenario is only relevant for an appropriated use according to the quality grade of the substance delivered

### 2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8c, ERC8e

Product characteristics	Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 100 %.
Technical conditions and measures at process level to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	Soil	Install a retention tank Prevent environmental discharge consistent with regulatory requirements. Council Directive 96/61/EC concerning integrated pollution prevention and control and national regulations concerning phosphates in industrial wastewater have to be followed to minimise the risk of eutrophication due to phosphate releases Provide regular control of specimens / pH May cause eutrophication at very low concentration
Conditions and measures related to external treatment of waste for disposal	Waste treatment	Neutralize contaminated cleaning water prior to disposal (pH 6 to 9)

### 2.2 Contributing scenario controlling worker exposure for: PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15

Product characteristics	Concentration of the Substance in Mixture/Article	Concentration of substance in product: 5% - 25%
	Physical Form (at time of use)	liquid
Frequency and duration of use	Exposure duration per day	> 4 h

## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

Other operational conditions affecting workers exposure	Indoor use
Technical conditions and measures to control dispersion from source towards the worker	Use in semi-automated and predominantly enclosed filling lines. Drain down and flush system prior to equipment opening or maintenance. Avoid mist, vapours and spray production
Organisational measures to prevent /limit releases, dispersion and exposure	Ensure that eyewash stations and safety showers are close to the workstation location. Employees must be trained in the proper use of PPE, and when to use it
Conditions and measures related to personal protection, hygiene and health evaluation	Chemical resistant goggles must be worn. or Use eye protection according to EN 166. Wear chemically resistant gloves. Respiratory protection is not necessary if room is well ventilated. If no adequate ventilation is available: Respiratory protection complying with EN 141. Wear a half mask respirator according to standard EN 405 Protective clothing Impervious footwear must be worn
	Wear respiratory protection. (Efficiency: > 95 %)

### 2.3 Contributing scenario controlling worker exposure for: PROC8a, PROC8b, PROC9, PROC15, PROC19

Product characteristics	Concentration of the Substance in Mixture/Article	Covers concentrations more than 25%
	Physical Form (at time of use)	liquid
Frequency and duration of use	Exposure duration per day	> 4 h
Other operational conditions affecting workers exposure	Indoor use	
Technical conditions and measures to control dispersion from source towards the worker	Use in semi-automated and predominantly enclosed filling lines. Drain down and flush system prior to equipment opening or maintenance. Avoid mist, vapours and spray production	
	Provide local exhaust ventilation (LEV). (Efficiency: > 50 %)(PROC8a)	
	Provide local exhaust ventilation (LEV). (Efficiency: > 97 %)(PROC8b)	
	Provide local exhaust ventilation (LEV). (Efficiency: > 90 %)(PROC9, PROC15)	
Organisational measures to prevent /limit releases, dispersion and exposure	Ensure that eyewash stations and safety showers are close to the workstation location. Employees must be trained in the proper use of PPE, and when to use it	
Conditions and measures related to personal protection, hygiene and health evaluation	Chemical resistant goggles must be worn. or Use eye protection according to EN 166. Wear chemically resistant gloves. Respiratory protection is not necessary if room is well ventilated. If no adequate ventilation is available: Respiratory protection complying with EN 141. Wear a half mask respirator according to standard EN 405 Protective clothing Impervious footwear must be worn	
	Wear respiratory protection. (Efficiency: > 95 %)	
	Wear respiratory protection. (Efficiency: > 75 %)(PROC8b, PROC15)	
	Wear respiratory protection. (Efficiency: > 80 %)(PROC9)	

### 3. Exposure estimation and reference to its source

#### Environment

No exposure assessment presented for the environment.

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$** 
**Workers**

PROC8b, PROC9, PROC11, PROC15, PROC19: Tier 1 MEASE

PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15: Advanced REACH Tool (ART model)

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
PROC8a	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.03mg/m <sup>3</sup>	0.03
PROC8a	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.03
PROC8a	Concentration >25%	Inhalation worker exposure	0.77mg/m <sup>3</sup>	0.77
PROC8a	Concentration >25%	Dermal worker exposure	---	0.77
PROC8b	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.03mg/m <sup>3</sup>	0.03
PROC8b	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.03
PROC8b	Concentration >25%	Inhalation worker exposure	0.301mg/m <sup>3</sup>	0.301
PROC8b	Concentration >25%	Dermal worker exposure	---	0.301
PROC9	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.03mg/m <sup>3</sup>	0.03
PROC9	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.03
PROC9	Concentration >25%	Inhalation worker exposure	0.802mg/m <sup>3</sup>	0.802
PROC9	Concentration >25%	Dermal worker exposure	---	0.802
PROC10	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.03mg/m <sup>3</sup>	0.03
PROC10	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.03
PROC11	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.6mg/m <sup>3</sup>	0.6
PROC11	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.6
PROC13	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.03mg/m <sup>3</sup>	0.03
PROC13	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.03
PROC15	Concentration of substance in product: 5% - 25%	Inhalation worker exposure	0.006mg/m <sup>3</sup>	0.006

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$** 

PROC15	Concentration of substance in product: 5% - 25%	Dermal worker exposure	---	0.006
PROC15	Concentration >25%	Inhalation worker exposure	0.501mg/m <sup>3</sup>	0.501
PROC15	Concentration >25%	Dermal worker exposure	---	0.501
PROC19	Concentration >25%	Inhalation worker exposure	0.5mg/m <sup>3</sup>	0.5
PROC19	Concentration >25%	Dermal worker exposure	---	0.5

Dermal exposure is limited due to the corrosive property of the substance.

**4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

Guidance is based on assumed operating conditions which may not be applicable to all sites. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Only properly trained persons shall make use of scaling methods while checking whether the OC and RMM are within the boundaries set by the ES

For further information on the assessment method, see: <http://www.ebrc.de/mease.html>

**Additional good practice advice beyond the REACH Chemical Safety Assessment**

Assumes a good basic standard of occupational hygiene is implemented.

## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

### 1. Short title of Exposure Scenario 3: Consumer use

Main User Groups	SU 21: Consumer uses: Private households (= general public = consumers)
Chemical product category	PC12: Fertilizers PC31: Polishes and wax blends PC35: Washing and cleaning products PC38: Welding and soldering products (with flux coatings or flux cores.), flux products PC39: Cosmetics, personal care products
Environmental Release Categories	ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems ERC8d: Wide dispersive outdoor use of processing aids in open systems ERC8e: Wide dispersive outdoor use of reactive substances in open systems
Activity	Note: this Exposure Scenario is only relevant for an appropriated use according to the quality grade of the substance delivered

### 2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8d, ERC8e

Technical conditions and measures at process level to prevent release Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Organizational measures to prevent/limit release from the site	There are no specific risk management measures related to environment.	
Conditions and measures related to sewage treatment plant	Type of Sewage Treatment Plant	Municipal sewage treatment plant
	Type of Sewage Treatment Plant	Chemical/biological
Conditions and measures related to external treatment of waste for disposal	Waste treatment	Batteries should be recycled as much as possible (e.g. by returning to a public recycling facility).
	Disposal methods	Contaminated packaging material will contain negligible amounts of substance, It will be disposed as domestic/ municipal waste, The substance is not expected to cause a significant pH effect to the environment when incinerated or land filled.

### 2.2 Contributing scenario controlling consumer exposure for: PC12, PC31, PC35, PC38, PC39

Product characteristics	Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 25 %.
	Physical Form (at time of use)	solid, liquid
Amount used	Amount used per event	0.110 kg
	The substance is employed as electrolyte in batteries, Furthermore the amounts of the product used in these mixtures will interact with other ingredients in acid-base reactions and thus only residues of the substance will remain as such in the final product	
Frequency and duration of use	Frequency of use	1 Times per day
	Frequency of use	20 minutes/event
	Frequency of use	360 days/year
Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)	Consumer Measures	It is required to use resistant labelling-package to avoid its auto-damage and loss of the label integrity, under normal use and storage of the product. The lack of quality of the package

## PHOSPHORIC ACID $\geq 25\%$ - $\leq 100\%$

		<p>provokes the physical loss of information on hazards and use instructions.</p> <p>It is required that improved use instructions, and product information should always be provided to the consumers. This clearly can efficiently reduce the risk of misuse.</p> <p>It is advisable to delivery only in small amounts.</p> <p>Required that household chemicals, containing acid over 10% which may be accessible to children should be provided with a child-resistant fastening and warning of danger</p> <p>Rinse and dry hands after use</p> <p>Do not apply product into ventilator openings or slots.</p> <p>Ventilate the room after use</p> <p>Wash hands thoroughly after handling.</p> <p>Keep out of the reach of children.</p> <p>Avoid contact with eyes.</p> <p>In case of contact with eyes, rinse immediately with plenty of water</p> <p>Wear suitable gloves.</p> <p>Use suitable eye protection.</p> <p>If splashes are likely to occur: Wear long sleeves</p>
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### 3. Exposure estimation and reference to its source

#### Environment

Consumer uses relate to already diluted products which will further be neutralized quickly in the sewer, well before reaching a WWTP or surface water. There is no environmental release as batteries are sealed articles with a long service life. Qualitative approach used to conclude safe use.

#### Consumers

relevant for all PCs: ConsExpo

relevant for all PCs: UK POEM model

Contributing Scenario	Specific conditions	Exposure routes	Level of Exposure	RCR
relevant for all PCs	Spreading of fertiliser, (max. 10% solution)	Consumer inhalation exposure	0.01mg/m <sup>3</sup>	0.014
relevant for all PCs	Bath cleaner (acid), (15% w/w)	Consumer inhalation exposure	0.0687mg/m <sup>3</sup>	0.094
relevant for all PCs	Toilet cleaners (bleach/acid), (15% w/w)	Consumer inhalation exposure	0.085mg/m <sup>3</sup>	0.116

Given that batteries are sealed articles and that acid involved in their maintenance is not intended for direct release (>, <) exposure to and emission from acid in these life-cycle stages should be negligible and therefore an exposure assessment is not considered deemed. Although accidental exposure to the substance at a concentration higher than 10% is normally excluded from an EU chemical safety assessment and accidental exposure is not considered in the present assessment, several risk management measures for consumers are included in the dossier. There is no environmental release as batteries are sealed articles with a long service life. Indirect exposure of humans via the environment is not relevant in the case of this substance.

### 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Guidance is based on assumed operating conditions which may not be applicable to all sites. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to

**PHOSPHORIC ACID  $\geq 25\%$  -  $\leq 100\%$**

at least equivalent levels.

For further information on the assessment method, see:

<http://www.rivm.nl/en/healthanddisease/productsafety/ConsExpo.jsp>