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NOTICE : Important information

Please note that this generic exposure scenario is by no means intended to be mandatory, prescriptive or exhaustive. The content of this document is intended for guidance only and whilst the information on uses covered is provided in utmost good faith and has been based on the best information currently available, is to be relied upon at the user's own risk. Ultimately, it is for each company to assess the appropriateness and completeness of the information on a case-by case basis and decide what elements they wish to adopt or to add. In particular, the preparation and content of the e-SDS is the legal responsibility of each company for its own products placed on the market, and the user should verify, complete, correct or adapt this generic document appropriately.

No representations or warranties are made with regards to its completeness or accuracy, in particular regarding the list of uses that are covered, and no liability will be accepted by [the consortium members] for damages of any nature whatsoever resulting from the use of or reliance on the information.

The consortium members acknowledge that any activities carried out under REACH have to be carried out in full compliance with EU competition law, in particular but not limited to Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU) as well as any applicable national laws.

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Orthophosphoric acid

Date of issue: 15/12/2017

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

1.1 Product identifier:

Orthophosphoric acid

EINECS Number: 231-633-2

CAS Number: 7664-38-2

REACH Registration number: [to be filled in by company]

Other identifiers: phosphoric acid, H₃PO₄

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

[company to insert any relevant uses]

[company to insert any relevant uses advised against]

1.3 Details of the supplier of the safety data sheet:

[Insert relevant details including contact name, address, phone number, email here]

1.4 Emergency telephone number:

[Insert suitable emergency number and hours of operation]

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SECTION 2. Hazards identification

2.1 Classification of the substance

Applicable to the pure substance.

2.1.1 According to Regulation (EC) No. 1272/2008 (EU CLP):

Metal Corrosion 1, H290: May be corrosive to metals

Acute toxicity 4, H302: Harmful if swallowed

Skin corrosion 1B, H314: Causes severe skin burns and eye damage

2.2 Label elements

2.2.1 According to Regulation (EC) No. 1272/2008 (EU CLP):

Name: orthophosphoric acid

Index Number: 015-011-00-6

CAS Number: 7664-38-2



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:

NOTE: ONLY 6 P-STATEMENTS TO BE INCLUDED IN SDS AND ON LABELS – DELETE AS APPROPRIATE.

Prevention:

P234: Keep only in original container

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P264: Wash ... thoroughly after handling

P270: Do not eat, drink or smoke when using this product

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

Response:

P301 + P312: IF SWALLOWED: Call a POISON CENTRE/doctor/.../if you feel unwell

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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/physician.

P321: Specific treatment (see ... on this label).

P330: Rinse mouth

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

Storage:

P405: Store locked up.

P406: Store in corrosive resistant/... container with a resistant inner liner.

Disposal:

P501: Dispose of contents/container to ...

NOTE: Information in Section 2.2 MUST be consistent with the information provided on the supplier's labels.

2.3 Other hazards

The material is not considered to be PBT or vPvB.

SECTION 3. Composition / information on ingredients

3.1 Substance:

Name	EC Number	CAS Number	Typical concentration	Concentration Range
Orthophosphoric acid	231-633-2	7664-38-2	[to be provided by company]	[to be provided by company]

Registration Number (if available): [specific to each registrant – insert number here]

EC name: orthophosphoric acid

Index number in CLP Annex VI: 015-011-00-6

Identification of hazardous impurities (where applicable):

Information on impurities is company specific therefore suppliers to update where necessary and in line with the data that is provided in their joint registration dossier Section 1.2.

SECTION 4. First aid measures

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4.1 Description of first aid measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

Rinse mouth. Do NOT induce vomiting. Call a POISON CENTRE/doctor/.../if you feel unwell.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Seek medical attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Orthophosphoric acid causes irritation and corrosive burns if in contact with tissues. The vapour may also cause irritation to the eyes throat and skin. No delayed effects are noted.

4.3 Indication of any immediate medical attention and special treatment needed

Rinse immediately with plenty of water. Remove contaminated clothing and shoes.

SECTION 5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Orthophosphoric acid is not flammable. Use fire fighting measures that suit the environment; CO₂, extinguishing powder or foam.

Inappropriate extinguishing media:

Not applicable.

5.2 Special hazards arising from the substance or mixture

Contact with metals may release flammable hydrogen.

5.3 Advice for fire-fighters

Protective clothing is required. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves. Wear appropriate eye protection. See Section 8.2.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin. Use personal protection equipment.

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For dust/fine particles and/or vapour; wear personal respiratory equipment (PRE) to minimise inhalation exposure. Wear impervious safety shoes or rubber boots. Use rubber gloves.

6.2 Environmental precautions

Do not allow concentrated solutions to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite). Orthophosphoric acid may be neutralised with slaked lime (calcium hydroxide), sodium carbonate, calcium carbonate or sodium bicarbonate.

Dispose of contaminated material according to the waste disposal recommendations.

6.4 Reference to other sections

Refer to Section 8 for suitable PPE.

Refer to Section 13 for disposal considerations.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Technical measures: sufficient ventilation and local suction is required in accordance with the details in the annex to the SDS. The European Occupational Exposure Limit must be observed. Only use materials resistant to acid.

Do not breathe vapours. Never introduce water or any aqueous agent into tanks or containers containing acids. Dilutions or neutralizations are very highly exothermic. Avoid spatters. Carry out slowly. Always add acid to water. Do not mix with incompatible materials (See section 10.5)

Ensure good hygiene in the workplace; do not eat, smoke or drink when handling concentrated phosphoric acid. Do not breathe dust. Avoid contact with skin, clothing and eyes. Wash hands and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

7.2 Conditions for safe storage, including any incompatibilities

Apply general principles for the storage of chemicals; Keep packaging closed when not in use.

Store in a dry, cool, well-ventilated area away from alkaline products and non-noble metals.

Do not store in direct sunlight. Do not pile up the containers. Do not store at temperatures close to freezing point.

Compatible materials: Stainless steel 316-L, High-density polyethylene, Glass.

7.3 Specific end use(s)

See annex for details of end uses covered in the exposure scenarios and CSR. The exposure scenarios detailed in the annex represent a worst case for exposure to humans and the environment.

SECTION 8. Exposure controls / personal protection

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8.1 Control parameters

Workplace exposure limits:

8-hour TWA (ACGIH –US + EU OEL): 1 mg/m³

15-min STEL (EU ELV): 2 mg/m³

[please check occupational limits for the country you supply to and insert limit here if available]

DNELs (worker):

Exposure route	Exposure pattern	DNEL (workers)
Inhalation, systemic	Long-term	10.7 mg/m ³
	Short-term	No DNEL derived: Hazard unknown (no further information necessary)
Inhalation, Local	Long-term	1 mg/m ³ 8-hour TWA (ACGIH –US + EU OEL)
	Short-term	2 mg/m ³ 15-min STEL (EU ELV)

No DNELs can be derived for dermal local effects as the concentration limit for corrosivity of H₃PO₄ is 25%. The concentration range of 10 -25% is established for irritation, therefore calculation of a DNEL is not required due to protective measures already in place.

DNELs (general population):

Exposure route	Exposure pattern	DNEL (general population)
Inhalation, systemic	Long-term	10.7 mg/m ³
	Short-term	No DNEL derived: Hazard unknown (no further information necessary)
Inhalation, Local	Long-term	1.0 mg/m ³
	Short-term	No DNEL derived: Medium hazard

No DNELs can be derived for dermal local effects as the concentration limit for corrosivity of H₃PO₄ is 25%. The concentration range of 10 -25% is established for irritation, therefore calculation of a DNEL is not required due to protective measures already in place. In addition, no data are available to warrant the calculation of oral DNELs.

PNECs:

Compartment	PNEC	Remarks
PNEC aqua (freshwater)	Not calculated	The predominant adverse effects of phosphoric acid in aquatic systems are pH-related effects, as a result of the acidic nature of phosphoric acid. As phosphoric acid is a triprotic acid it will dissociate up to 3 times; releasing a phosphate anion
PNEC aqua (marine water)	Not calculated	

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PNEC aqua (intermittent releases)	Not calculated	<p>(H₂PO₄⁻, HPO₄²⁻ or PO₄³⁻) and a H⁺ ion at each dissociation. The fate of the H⁺ ions (and subsequently the resultant pH) will depend on the chemical composition of the receiving water body. The pH of the receiving body can vary significantly between different ecosystems and geographical locations and also the pH change as a consequence of anthropogenic phosphoric acid is influenced by the buffering capacity of the receiving water. Changes in the pH of a water body can have potentially toxic effects on the endogenous aquatic organisms present. However, the sensitivity of the organisms to pH changes vary significantly according to location or species (pH ranges of tolerance for the major taxonomic groups, fish, crustaceans and algae, are commonly report to vary between pH 6.0 and pH 9.0). The phosphate anions are not considered to be toxic to the aquatic environment as phosphate anions are naturally widespread both in the environment and within organisms and cells, and they are readily assimilated as an essential nutrient by the aquatic organisms. It is therefore not considered appropriate to derive a PNECaqua on the basis of single-species ecotoxicology data as the main risk factor has been determined to be a phosphoric acid related change in the pH of the receiving water body rather than direct toxicity of phosphoric acid to the target organisms (in a laboratory study the test media would be buffered to pH-neutral thus sequestering the H⁺ ions and as such no adverse effects would be expected).</p> <p>In addition, pH-related effects are considered to be of lower risk in marine water due to its buffering capacity being greater than that of freshwater.</p>
PNEC STP	Not calculated	<p>No data are available for STP microorganisms. In water phosphoric acid will progressively dissociate to phosphate anions (PO₄³⁻) and hydrogen cations (H⁺). The release of H⁺ ions will lead to a net decrease in the pH of the receiving water body. However, in the case of waste water treatment plants, the pH levels are typically adjusted to ensure a neutral discharge to the receiving water and in order to prevent pH-related inhibitory effects on the growth of STP microorganisms. The neutralisation of phosphoric acid would result in the STP microorganisms being exposed to phosphate. Phosphate is an essential nutrient for activated sludge systems and does not result in adverse effects. It is therefore not considered appropriate or meaningful to derive a PNEC STP for phosphoric acid.</p>
PNEC sediment (freshwater)	Not calculated	<p>No data are available for sediments. Phosphoric acid will progressively dissociate in water to give H⁺ and PO₄³⁻ ions.</p>
PNEC sediment (marine water)	Not calculated	<p>Due to its high water solubility and low vapour pressure it is predicted that any un-dissociated phosphoric acid will remain in the water phase and will not absorb onto particulate. The PO₄³⁻ ion is likely to absorb onto sediment, however, PO₄³⁻ ions are ubiquitous in the environment and are found naturally in soil, water and sediment. They are assimilated by species residing in the sediment, water or soil and are essential for maintaining a good chemical balance. Toxicity to sediment</p>

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		organisms via this route is not predicted and as such further toxicity studies to determine a PNEC _{sediment} are not considered to be scientifically justified.
PNEC soil	Not calculated	No data are available for soil organisms. Phosphoric acid occurs naturally and widely in low concentrations in soils, In addition, phosphoric acid is widely used as a plant fertiliser, either as such or as a processing residue in superphosphates, and as a soil stabiliser (through reactions with aluminium molecules in clays). When spilled on to soil phosphoric acid will initially infiltrate downwards, but in most cases it will dissociate to PO ₄ ³⁻ and H ⁺ ions in the soil pore water, and/or react with minerals present in the soil, in particular calcium, iron and aluminium . Except in very specific circumstances (acidic soils, certain mineral soil types, very high dosage of phosphoric acid) phosphoric acid will not therefore penetrate beyond the surface layer of soil and will not reach the groundwater table. Phosphate loss to surface water is usually related to run-off or erosion of soil particles, which carry the attached phosphates. Accidental release of significant quantities of concentrated phosphoric acid into soil may cause soil to expand as the phosphoric acid is neutralised by the lime already present in the soils resulting in calcium phosphate minerals replacing calcium carbonate. Phosphate ions released into soil are not anticipated to result in toxicity to soil-dwelling organisms as phosphate is an essential nutrient. Toxicity to terrestrial organisms via this route is only considered to be as a result of localised pH changes; as such it is not justified to further investigate the effects of phosphoric acid on terrestrial organisms as the potential effects are highly variable according to location and soil composition and a reliable PNEC soil cannot be calculated. If phosphoric acid does reach the groundwater table any remaining phosphoric acid will dissociate to PO ₄ ³⁻ and H ⁺ ions; the resultant ions may be dispersed and diluted in the ground water.
PNEC oral	Not calculated	Phosphoric acid is not considered to pose a risk of secondary poisoning as it is not anticipated to bioaccumulate. Phosphoric acid will progressively dissociate into PO ₄ ³⁻ and H ⁺ ions in aqueous environments; these ions are not lipophilic and will therefore not accumulate in fatty tissues. It not considered necessary to derive a PNEC to take into account the risk of secondary poisoning and no further testing is considered necessary.

8.2 Exposure controls

Appropriate engineering controls: Ensure work area is well ventilated or exhausted (where appropriate and in line with the exposure scenarios). Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Respiratory protection: See annex for details of processes requiring Personal Respiratory Equipment (PRE). In situations where aerosols, mists or fogs may be formed it is suggested to wear an all over facemask, containing an appropriate inorganic acid filter or an all-over face mask connected to a fresh air supply

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Skin protection: Use acid resistant clothing; laboratory coat or overalls and plastic or rubber boots. Store protective clothing separately.

Eye protection: Tightly sealed chemical safety goggles (compliant with EN 166:2001)

Hand protection: Wear protective gloves: Impervious chemical resistant protective gloves are required.

Material of gloves: Chloroprene, Neoprene or PVC gloves

Environmental controls: Refer to Sections 6, 7, 12 and 13 of the SDS.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value	Method
Appearance; including colour and physical state	Clear colourless transparent solid or viscous liquid	Visual observation and handbook data: The key study and two of the handbook sources report anhydrous phosphoric acid to be crystalline at 20°C. Phosphoric acid is mainly marketed as an aqueous solution which is a colourless viscous liquid.
Odour	No data	
Odour threshold	Not applicable	
pH	pH <1 100g/l = pH 3.0 (as measured in algal growth inhibition study).	Handbook data
Melting point/freezing point	41.1°C 0.at 1013 hPa	EU Method A.1 (Klimisch Reliability 2 – deviation of standard method)
Initial boiling point and boiling range	296.5°C at 1013 hPa	EU Method A.2. (Klimisch Reliability 1)
Flash point	Not applicable	According to Regulation No. 1907/2006, the flash point does not need to be assessed for inorganic chemicals.
Evaporation rate	Not applicable	
Flammability (Solid, gas)	Not flammable	Data waiver based on observations in use and chemical structure of the material.
Upper/lower flammability or explosive limits	Not applicable	

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Vapour pressure	4 Pa at 20°C	Handbook data – weight of evidence approach.
Vapour density (Air = 1)	Not applicable	
Relative density	1.84 at 38.0°C (100% solution)	EU Method A.3. (Klimisch Reliability 1)
Solubility(ies)	> 1000 g/L at 20°C	Handbook data – weight of evidence approach.
Partition coefficient: N-octanol/water	Not applicable	According to Regulation No. 1907/2006, the partition coefficient n-octanol/water does not need to be assessed for inorganic chemicals.
Auto-ignition temperature	No auto-ignition anticipated	Based on prediction
Decomposition temperature	Not applicable	
Viscosity	600 mPa s at 20°C (105%)	Handbook data – weight of evidence approach
Explosive properties	Not considered to be explosive	Based on prediction
Oxidising properties	No oxidising properties	Based on prediction

9.2 Other information

Testing has been performed on orthophosphoric acid, in accordance with Annex X of REACH.

SECTION 10. Stability and reactivity

10.1 Reactivity

Non-reactive under recommended storage and handling conditions (see Section 7)

10.2 Chemical stability

Thermally stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

May form phosphorus oxides. Contact with reactive metals may release flammable hydrogen gas. Reacts violently with strong bases.

10.4 Conditions to avoid

High temperature, light.

10.5 Incompatible materials

Alkalis and caustic materials. Non-noble metals.

10.6 Hazardous decomposition products

Contact with metals may release flammable hydrogen. When orthophosphoric acid is heated, phosphorus oxides may be formed.

SECTION 11. Toxicological information

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11.1 Information on toxicological effects

Toxicological endpoint	Value (including relevance to CLP criteria)	Method
Acute toxicity:		
Oral	LD50 = 300 mg/kg bw	WoE approach. Data from various sources including OECD 423 test method.
Dermal	No reliable data – substance is corrosive to skin.	
Inhalation	No reliable data - Substance is corrosive to skin and is not considered to be acutely toxic via the inhalation route.	
Skin corrosion/irritation	Corrosive Cat 1B (concentrations $\geq 25\%$ w/w)	SCL according to Regulation EC No.1272/2008 (EU CLP), Annex VI, Table 3.1.
Serious eye/damage/irritation	Corrosive (concentrations $\geq 25\%$ w/w). Eye irritant (concentrations $\geq 10\%$ w/w < 25% w/w)	SCL according to Regulation EC No.1272/2008 (EU CLP), Annex VI, Table 3.1.
Respiratory or skin sensitisation	Not investigated – substance is corrosive.	No data to suggest substance is a sensitiser.
Germ cell mutagenicity	Not considered to be mutagenic.	Orthophosphoric acid is not expected to produce germ cell genotoxic damage and was found to be negative in the following tests: <ul style="list-style-type: none"> - OECD 471 (Klimisch reliability 1) - OECD 473 (Klimisch reliability 1) - OECD 476 (Klimisch reliability 1)
Carcinogenicity	Not considered to be a carcinogen.	Not required for REACH. No data to suggest likelihood of carcinogenicity.
Reproductive toxicity	Not considered to be a reproductive or developmental toxicant NOAEL 500 mg/kg bw/day	Reproductive toxicity: Rat, OECD 422 Klimisch 1 (no long-term reproductive toxicity data available)

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	Developmental toxicity: NOAEL (monosodium phosphate): 410 mg/kg bw/day	Developmental toxicity: Guideline similar to OECD 414. Klimisch reliability 2.
STOT-single exposure – all routes	No STOT SE classification – however substance is corrosive and likely to cause respiratory irritation.	
STOT-Repeated exposure - all routes	Oral: NOAEL: 250 mg/kg bw/day (OECD 422) Long-term repeated dose: LOAEL = 155 mg/kg bw (read-across substance) Inhalation: no data Dermal: no data	28 days: Rat, OECD 422, Klimisch reliability 1. Long-term: 90-day study in rats and beagles. No guideline followed. Substance tested was sodium aluminium phosphate (Klimisch reliability 2).
Aspiration hazard	No aspiration hazard identified	Not applicable.

The substance has been assessed with regards to the data requirements of Annex X of REACH.

SECTION 12. Ecological information

12.1 Toxicity

Toxicological endpoint	Value (including relevance to CLP criteria)	Species, Method
Acute fish toxicity	Median Lethal pH (96 hr): 3-3.25 for <i>Lepomis macrochirus</i> .	No guideline followed
Acute <i>Daphnia</i> toxicity	48 hr EC ₅₀ = > 100 mg/L (nominal)	<i>Daphnia magna</i> , OECD 202, EU Method C.2.
Algal growth inhibition	72 hr EC ₅₀ = > 100 mg/L (nominal) 72 hr NOEC = 100 mg/L (nominal)	<i>Desmodesmus subspicatus</i> (algae), OECD 201, EU Method C.3.

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	Basis for effect: growth rate	
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The substance has been assessed with regards to the data requirements of Annex X of REACH

12.2 Persistence and degradability

Orthophosphoric acid is an inorganic substance, biodegradation studies are not applicable. No further testing is deemed to be necessary.

12.3 Bioaccumulative potential

Not relevant for inorganic acids.

12.4 Mobility in soil

Phosphoric acid itself will not absorb to soil. In most cases it will dissociate to PO_4^{3-} and H^+ ions in the soil pore water, and/or react with minerals present in the soil, in particular calcium, iron and aluminium. Except in very specific circumstances (acidic soils, certain mineral soil types, very high dosage of phosphoric acid) phosphoric acid will not therefore penetrate beyond the surface layer of soil and will not reach the groundwater table.

12.5 Results of PBT and vPvB assessment

According to the Guidance on Information Requirements and Chemical Safety Assessment, Chapter R.11: PBT Assessment, the PBT and vPvB criteria of Annex XIII to the regulation do not apply to inorganic substances. Therefore, orthophosphoric acid is not considered to require any further assessment of PBT properties.

12.6 Other adverse effects

No sediment or terrestrial toxicity data exists. Substance is not considered to be hazardous to sediment dwelling or terrestrial organisms. Increases in orthophosphoric acid concentrations may result in a decreased pH which may have a detrimental local effect on organisms.

According to the criteria of the European classification and labelling system, the substance does not require classification as hazardous for the environment.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Disposal recommendations are made based on the material as supplied. Disposal must be in accordance with current applicable laws and regulations.

Disposal of substance: Neutralise with lime or carbonates. Dispose of in accordance with national and local regulations for special waste via an appropriately licensed waste contractor. Do not discharge to drains or STP.

Disposal of packaging: Used packaging should be disposed of according to national and local regulations for special waste via an appropriately licensed waste contractor.

Regulatory disposal information:

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European waste codes: Waste producers need to assess the process used when generating the waste and its contaminants in order to assign the most appropriate waste disposal code(s).

Recommended code: European waste catalogue 16 03 03 inorganic wastes containing dangerous substances

SECTION 14. Transport information

Transport classifications (ADR/RID/IMDG/IATA) are not defined in the REACH Registration Dossier for the substance. The information provided here is therefore not derived from this Dossier and is based on other information available to the Consortium Members. The Transport classifications (ADR/RID/IMDG/IATA) provided here are indicative and based on the data in the REACH dossier for the pure substance only and may not be applicable for solutions or other preparations. Please seek advice from your Dangerous Good Safety Advisor.

According to information available: UN transport classification:

14.1 UN number	UN 1085		
	LAND (ADR/RID)	SEA (IMDG)	AIR (IATA)
14.2 UN proper shipping name	PHOSPHORIC ACID, SOLUTION		
14.3 Transport hazard class(es)	8	8	8
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14.4 Packing group	III	III	III
14.5 Environmental hazards	Not classified for the environment		
14.6 Special precautions for user	Corrosive		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not a marine pollution		

Other Information: Passenger aircraft: forbidden. Labelling aircraft: corrosive.
EmS number: F-A, S-B

SECTION 15. Regulatory information

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

National Regulations: Water Hazard Class 1 (Germany)

[COMPANY TO INCLUDE ANY INFORMATION RELEVANT TO THE COUNTRY OF PRODUCT AND/OR SUPPLY]

Orthophosphoric acid is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.

This safety data sheet is compliant with Regulation (EC) No 1907/2006 (REACH) (including the amendment, Regulation (EU) No 453/2010 and Regulation (EC) No. 1272/2008 (EU CLP).

15.2 Chemical Safety Assessment.

A Chemical Safety Assessment is available for orthophosphoric acid.

SECTION 16. Other information

This SDS supersedes the SDS dated [TO BE COMPLETED BY COMPANY SUPPLYING SDS]

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The following amendments have been made:

- SDS has been fully revised and re-written in accordance with Regulation (EU) No 453/2010 and Regulation (EC) No. 1272/2008 (EU CLP).
- Any further amendments to be detailed by supplier of SDS

Sources of Key data used:

- Registration dossier submitted to ECHA in accordance with Regulation (EC) No. 1907/2006 and therefore a full reference list can be found in the corresponding CSR.

Abbreviations and acronyms used:

ACGIH =	American Conference of Industrial Hygienists
AF =	Assessment factor
DNEL =	Derived no effect level
EC50 =	Median effect concentration
LC50 =	Median lethal concentration
LD50 =	Median lethal dose
LEV =	Local Exhaust Ventilation
NOAEL =	No observed adverse effect level
NOEC =	No observed effect concentration
PBT	Persistent bioaccumulative toxic
PEC =	Predicted effect level
PNEC =	Predicted no effect level
PRE =	Personal Respiratory Equipment
OEL =	Occupational Exposure Limit
SCOEL =	Scientific Community on Occupational Exposure Limits
SDS =	Safety data sheet
STOT-SE =	Specific target organ toxicity – single exposure
STOT-RE =	Specific target organ toxicity – repeated exposure
STP =	Sewage treatment plant
TWA =	Time-weighted average
vPvB =	Very persistent very bioaccumulative

Revision date: X

Version: XX

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NB. Please read **NOTICE** on front page

ES FOR COMMUNICATION

Substance Name:Orthophosphoric acid

EC Number:231-633-2

CAS Number:7664-38-2

Registration Number:

Date of Generation/Revision:

SAFETY DATA SHEET
Orthophosphoric acid

Date of issue: 15/12/2017

Revision date: X

Version: XX

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*NB. Please read **NOTICE** on front page*