





#### 4. FIRST-AID MEASURES.

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General advice	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Eye Contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.
Protection of First-aiders	Use personal protective equipment.

#### 5. FIRE-FIGHTING MEASURES.

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Flash point:	> 212°F / 100°C
Suitable Extinguishing Media:	As suitable for the surrounding fire.
Extinguishing media which must not be used for safety reasons:	No information available
Specific Hazards Arising from the Chemical:	Thermal decomposition can lead to release of irritating gases and vapors.
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective clothing appropriate for fighting a chemical fire.
Precautions for fire-fighting	Standard procedure for chemical fires.

#### 6. ACCIDENTAL RELEASE MEASURES.

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Personal Precautions:	Ensure adequate ventilation. Avoid contact with the skin and the eyes. Use personal protective equipment.
Environmental Precautions:	Do not allow large spill quantities to enter drainage / surface water / ground water. Local authorities should be advised if significant spillages cannot be contained.
Methods for Cleaning up:	Wear personal protective equipment.  Small spillage: Neutralise with water Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.  Large spills: Contain and collect for later disposal according to local, provincial, state or federal regulations.
Methods for Containment:	Prevent further leakage or spillage if safe to do so

## 7. HANDLING AND STORAGE.

<b>Handling:</b>	Read label before use. Ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Remove and wash contaminated clothing before re-use. Avoid contact with skin and eyes. Do not ingest. DO NOT mix with bleach or other household cleaning products.
<b>Storage:</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition Keep locked-up Keep out of the reach of children.
<b>Storage Classification</b>	8 (= Corrosive, following German VCI-concept)

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Chemical Name	EU	Germany TRGS900:	German mak:	France - OEL	Belgium - OEL	Netherlands - OEL
Phosphoric acid 7664-38-2		TWA: 2 mg/m <sup>3</sup>	MAK: 2 mg/m <sup>3</sup> Peak: 4 mg/m <sup>3</sup>	VLCT: 0.5 ppm VLCT: 2 mg/m <sup>3</sup> = 0.2 ppm VME indicative limit 2 752 2 Phosphoric acid = 1 mg/m <sup>3</sup> VME indicative limit 2 752 2 Phosphoric acid	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>

Chemical Name	Norway - OEL	UK - OES	Portugal - OEL	Spain - OEL	Sweden - OEL	Austria - OEL
Phosphoric acid 7664-38-2	TWA: 1 mg/m <sup>3</sup>	= 2 mg/m <sup>3</sup> STEL 2 2093 2 Phosphoric acid = 1 mg/m <sup>3</sup> TWA 3 2094 3 Phosphoric acid	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	VLA-EC: 2 mg/m <sup>3</sup> VLA-ED: 1 mg/m <sup>3</sup>	STV: 3 mg/m <sup>3</sup> LLV: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> MAK: 1 mg/m <sup>3</sup>

Chemical Name	Finland - OEL	Italy - OEL
Phosphoric acid 7664-38-2	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>

### Occupational exposure controls

**Engineering Controls:** Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

**Respiratory Protection:** No protective equipment is needed under normal use conditions Do not breathe vapors, mist or gas For Occupational exposures, where exhaust ventilation is not adequate to control contaminant levels to below the regulatory TWA, appropriate acid gas or self-contained breathing apparatus (SCBA) respiratory equipment should be worn.

**Eye Protection** Tightly fitting safety goggles  
Wear eye/face protection

**Hand Protection:** Wear protective gloves/clothing  
Permeation level 6, Penetration level 3 following EN374, taking into consideration the exposure of chemicals given in chapter 3.

**Skin and Body Protection:** Usual safety precautions while handling the product will provide adequate protection. In case of continuous exposure or occupational operations, wear protective clothing designed and appropriate for acid chemical exposure.

### Hygiene measures

When using, do not eat, drink or smoke.  
Remove and wash contaminated clothing before re-use.

### Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained



## 9. PHYSICAL AND CHEMICAL PROPERTIES.

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<b>Physical State:</b>	Liquid.
<b>Appearance:</b>	Clear Liquid.
<b>Colour:</b>	Colourless
<b>Odour:</b>	Odorless.
<b>pH</b>	< 1 (undiluted) 1.8 - 2.2 (1% aqueous solution)
<b>Boiling Point/Range:</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Solubility:</b>	Water solubility: completely miscible.
<b>Specific Gravity / Density [g/mL]:</b>	1.064 - 1.084 g/mL
<b>Flash Point:</b>	> 100°C / > 212°F

## 10. STABILITY AND REACTIVITY.

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<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	Store away from excessive heat and moisture.
<b>Incompatible Products</b>	<ul style="list-style-type: none"><li>• Gives off hydrogen by reaction with metals.</li><li>• Corrodes base metals.</li><li>• Do not mix with chlorine bleach and strong alkali compounds.</li></ul>
<b>Hazardous Decomposition Products:</b>	Thermal decomposition can lead to release of irritating gases and vapors Oxides of carbon and unknown organic compounds.
<b>Polymerization:</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION.

### PRODUCT TOXICITY DATA

<b>LD<sub>50</sub> Oral:</b>	No information available
<b>LD<sub>50</sub> Dermal:</b>	No information available
<b>LC<sub>50</sub> Inhalation (Dust):</b>	No information available
<b>LC<sub>50</sub> Inhalation (Vapor):</b>	No information available

### ACUTE EFFECTS

<b>Eye Irritation</b>	Corrosive liquid. Causes severe burns
<b>Skin Irritation</b>	Corrosive liquid Causes severe burns
<b>Inhalation</b>	None expected during normal conditions of use.
<b>Ingestion</b>	Health injuries are not known or expected under normal use. May be harmful if swallowed. See Section 4 for First Aid instructions.
<b>Sensitization</b>	Not expected to be a skin sensitiser.
<b>Chronic Effects</b>	No information available.

### Specific Effects

<b>Carcinogenic Effects:</b>	Not listed as carcinogenic by OSHA, NTP or IARC.
<b>Mutagenic Effects</b>	No information available.
<b>Reproductive Toxicity:</b>	No information available.
<b>Additional Toxicity Information:</b>	Information given is based on data on the components and the toxicology of similar products.

### COMPONENT TOXICITY DATA

Chemical Name	CAS-No	LD50 Oral - with units - Rat - mg/kg	LD50 Dermal - With Units - Rat/Rabbit - mg/kg	LC50 Inhalation - With units - Rat/Rabbit
Sulphamic acid	5329-14-6	1450 mg/kg ( Rat )		
Phosphoric acid	7664-38-2	1530 mg/kg ( Rat )	2730 mg/kg ( Rabbit )	850 mg/m <sup>3</sup> ( Rat ) 1 h

## 12. ECOLOGICAL INFORMATION.

### Ecotoxicity:

#### PRODUCT TOXICITY DATA

**Aquatic toxicity:** This product is not classified as an environmental hazard.

#### COMPONENT TOXICITY DATA

<i>Sulphamic acid</i> <b>Freshwater Fish</b>	LC50 96 h Pimephales promelas 14.2 mg/L
<i>Phosphoric acid</i> <b>Freshwater Fish</b> <b>Water Flea</b>	LC50 96 h Gambusia affinis 3 - 3.5 mg/L EC50 12 h 4.6 mg/L

#### Other Information

<b>Ozone depletion potential; ODP; (R-11 = 1)</b>	No information available.
<b>Global Warming Potential (GWP):</b>	No information available.
<b>Additional Ecological Information:</b>	Any contained surfactants are ultimately biodegradable according to the EU Detergent Regulation, 648/2004.

### 13. DISPOSAL CONSIDERATIONS.

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<b>Disposal Methods and Containers:</b>	This material and its container must be disposed of in a safe way
<b>Special Precautions for Landfill or Incineration:</b>	No information available
<b>Contaminated Packaging:</b>	For bulk quantities dispose of in accordance with local, regional or national requirements. For further information contact your local waste authority.
<b>Further information:</b>	<p>According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.</p> <p>Waste codes should be assigned by the user based on the application for which the product was used.</p> <p>Packaging and container to be recycled only if emptied completely!</p>
<b>EWC waste disposal No:</b>	200114 - acids

### 14. TRANSPORT INFORMATION.

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<b>General remarks</b>	For long distance transport of bulk material or shrunk pallet take into consideration sections 7 and 10.
<b>ICAO</b>	See IATA
<b>IATA</b>	
<b>UN-No:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s (Sulphamic Acid, Phosphoric Acid)
<b>Hazard Class</b>	8
<b>Subsidiary Class</b>	Not applicable
<b>Packing group:</b>	III
<b>Maximum Quantity:</b>	<p>LTD QTY: packaging instruction Y818: 0,5L inner packaging 1,0L, combination packaging only combination packagings are allowed.</p> <p>PAX: packaging instruction 818: 2,5L inner packaging (plastic), 5,0L combination packaging, only combination packagings are allowed. Packagings have to meet the performance capability of PG II.</p> <p>CAO: packaging instruction 820: 5,0L inner packaging (plastic), 60L net quantity/Packaging Single packaging and combination packagings are allowed. Packagings have to meet the performance capability of PG II.</p>
<b>Remarks:</b>	Requirements from States or Airlines may differ.
<b>IMDG/IMO</b>	
<b>UN-No</b>	UN3264
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s (Sulphamic Acid, Phosphoric Acid)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III
<b>EmS:</b>	F-A, S-B
<b>Special Provisions</b>	Not applicable
<b>Marine Pollutant</b>	Not applicable
<b>Limited Quantity IMDG</b>	5L inner packaging, 30Kg. combined packaging, 5L inner packaging, 20 Kg. Tray.
<b>Remarks:</b>	clear of living quarters.

<b>RID</b>	See ADR
<b>ADR</b>	
<b>UN-No:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s (Sulphamic Acid, Phosphoric Acid)
<b>Hazard Class</b>	8
<b>Packing group:</b>	III
<b>Classification Code</b>	C1
<b>ADR Hazard ID Number</b>	Not applicable
<b>Special Provisions</b>	Not applicable
<b>ADR/RID-Labels</b>	8 (if not LQ)
<b>ADR/RID Limited Qty</b>	LQ 7 5 L inner packaging, 30 kg combined packaging, 5 L inner packaging, 20 kg Tray

**ADN** Not applicable.

## 15. REGULATORY INFORMATION.

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**Chemical Safety Assessment following regulation 1907/2006/EC:** Not relevant.

**In accordance with local and national regulations:** The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

**Contains Sulphamic acid, Phosphoric acid**

**Symbol(s)**

**C - Corrosive**



**R -phrase(s)**

R35 - Causes severe burns

**S -phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
 S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)  
 S64 - If swallowed, rinse mouth with water (only if the person is conscious)  
 S50 - Do not mix with bleach or other cleaning products.  
 S35 - This material and its container must be disposed of in a safe way

**Safety Combination Phrases**

S1/2 - Keep locked up and out of the reach of children  
 S24/25 - Avoid contact with skin and eyes  
 S27/28 - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water  
 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

## 16. OTHER INFORMATION.

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**Text of R phrases mentioned in Section 3**

- R34 - Causes burns.
- R36/38 - Irritating to eyes and skin.
- R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This document complements the technical usage instructions but does not replace them. The information contained herein is based on our best current knowledge of the product concerned, and is given in good faith. The attention of recipients is drawn to (amongst other things) the element of risk consequent to use of the product other than that for which it was intended.

In no way does this document remove the need of the recipient of the product to fully understand and apply statutory requirements. It is the recipient's sole responsibility to take due precautions relative to the use made of the product. All information contained herein is only to assist the recipient in fulfilling their statutory duty connected with the use of hazardous materials.



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This list of information must not be considered as exhaustive, and does not exonerate the recipient from taking other precautions described in documents other than those mentioned, concerning the storage and use of the product, for which they remain the sole person responsible.