



## 01 Identification of substance

- **Product details:**
- **Trade name:**  
PASSIVATION S
- **Article number:**  
000349
- **Relevant identified uses of the substance or mixture and uses advised against**  
See the following or attachments.
- **Sector of Use**  
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the preparation**  
Cleaning material/ Detergent
- **Supplier details:**
- **Manufacturer/Supplier:**  
WIGOL W Stache GmbH  
chemische Fabrik  
Textorstraße 2  
D-67547 Worms  
Tel.: ++49-(0)6241-4141-0  
Fax : ++49-(0)6241-414141
- **Informing department:**  
Laboratory Department  
TEL:+49(0)6241 4141 0; FAX:+49(0)6241 4141 41; mail: kontakt@wigol.de
- **Emergency information:**  
TEL: +49 (0) 6131 19240  
Poison Information Center Mainz, Germany  
<http://www.giftinfo.uni-mainz.de/>

## 02 Hazard identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
- 
 GHS05  
 Met. Corr.1 - H290 May be corrosive to metals.  
 Skin Corr. 1B - H314 Causes severe skin burns and eye damage.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
C corrosive  
R 34  
Causes burns.
- **Information concerning particular hazards for human and environment:**  
Not applicable.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
- 
 GHS05
- **Signal word**  
Danger
- **Hazard-determining components of labelling:**  
Orthophosphoric acid / Nitric acid
- **Hazard statements**  
H290 May be corrosive to metals.

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- H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
    - P260 Do not breathe dust/fume/gas/mist/vapours/spray.
    - P280 Wear protective gloves/protective clothing/eye protection/face protection.
    - 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.
    - P406 Store in corrosive resistant container with a resistant inner liner.
    - P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.
  - **Additional information:**
  - **Results of PBT and vPvB assessment**  
According to Annex XIII, XIV of Regulation (EC) No.1907/2006 concerning REACH Not fulfilling PBT (persistent bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent/very bioaccumulative) criteria. Self classification
  - **PBT:**  
Not applicable.
  - **vPvB:**  
Not applicable.

**03 Composition/Data on components**

- **Chemical characterization**
- **Description:**  
Solution of substances listed below with non declarable additions.

• **Dangerous components:**

CAS NO.	Description Index R-phrases	%
7664-38-2	Orthophosphoric acid EINECS Number: 231-633-2 Record number 01-2119485924-24-0021 C 34  Met. Corr.1 - H290, Skin Corr. 1B - H314	>30,0
7697-37-2	Nitric acid EINECS Number: 231-714-2 C O 8-35  Met. Corr.1 - H290, Skin Corr. 1A - H314;  Ox. Liq. 3 - H272	>1,0-<5,0

- **Additional information**  
For the wording of the listed risk phrases refer to section 16.

**04 First aid measures**

- **Description of first aid measures**
- **General information**  
Instantly remove any clothing soiled by the product.  
Personal protection for the First Aider.
- **After inhalation**  
Supply fresh air or oxygen; call for doctor.  
In the case of breathing difficulties have the casualty inhale oxygen.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.

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- **After eye contact**  
Rinse opened eye for several minutes under running water. Then consult doctor.  
Use eye protection.  
Seek medical treatment.
- **After swallowing**  
Rinse out mouth.  
Drink copious amounts of water and provide fresh air. Instantly call for doctor.  
Do not induce vomiting; instantly call for medical help.  
During spontaneous vomiting hold the head of the casualty onto low with the body in a prone position in order to avoid the penetration of vomit into the air tube.
- **Information for doctor**  
Typical corrosive acid burns. Symptoms of acute poisoning: Eyes: shooting pain, opacity of the cornea (possibly irreversible) Skin: irritations, chemical burns, possible shock Respiratory tract: tussive irritation, burning sensation to the mucous membranes  
Information see: GESTIS-database on hazardous substances [www.hvbg.de/bgja/gestis-database](http://www.hvbg.de/bgja/gestis-database)

**05 Fire fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**  
Not known.
- **Special hazards caused by the material, its products of combustion or flue gases:**  
Nitrogen oxides (NO<sub>x</sub>)
- **Advice for firefighters**
- **Protective equipment:**  
Keep breathing equipment ready.  
Wear protective equipment. Keep unprotected persons away.
- **Additional information**  
None

**06 Accidental release measures**

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose of the material collected according to regulations.  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Additional information:**  
Other regulations, limitations and prohibitive regulations see chapter 15

**07 Handling and storage**

- **Handling**
- **Information for safe handling:**  
Do not mix with alkaline products
- **Information about protection against explosions and fires:**  
No special measures required.
- **Technically and precautionary measures**  
Store in the original bundle.
- **Conditions for safe storage, including any incompatibilities**

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- **Storage**
- **Requirements to be met by storerooms and containers:**  
Observe official regulations on storing packagings with dangerous goods
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from frost.  
Protect from heat and direct sunlight.
- **Storage class**  
8B  
Storage classes according TRGS 510
- **Class according to regulation on inflammable liquids:**  
-
- **Specific end use(s)**  
No further relevant information available.

**08 Exposure controls and personal protection**

- **Additional information about design of technical systems:**  
No further data; see item 7.

- **Control parameters**

- **Components with critical values that require monitoring at the workplace:**

<i>CAS No.</i>	<i>Designation of material</i>		
7664-38-2	Orthophosphoric acid		
<b>AGW</b>			
	<i>Long-term value</i>	<b>2 E</b>	<b>mg/m<sup>3</sup></b>
	<b>2(l);DFG, EU, AGS, Y</b>		
<b>MAK</b>			
	<i>Long-term value</i>	<b>2E</b>	<b>mg/m<sup>3</sup></b>

- **Additional information:**  
The lists that were valid during the compilation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Wash hands during breaks and at the end of the work.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Avoid contact with the eyes and skin.  
Other regulations, limitations and prohibitive regulations see chapter 15
- **Breathing equipment: Use breathing protection when aerosol or mist is formed (FFP2SL) Other regulations, limitations and prohibitive regulations see chapter 15**
- **Protection of hands: Acid resistant protection gloves (Butyl india rubber, Viton) - EN 374 Other regulations, limitations and prohibitive regulations see chapter 15 Preventive skin protection by use of skin-protecting agents is recommended.**
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection: Tightly sealed goggles (EN 166) Other regulations, limitations and prohibitive regulations see chapter 15**
- **Body protection: Protective work clothing EN 340 - Protective clothing, general requirements Chemical protective clothing - EN 463 following Other regulations, limitations and prohibitive regulations see chapter 15**

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**09 Physical and chemical properties**

<b>Information on basic physical and chemical properties</b>	
<b>Appearance</b>	
<b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Smell:</b>	Odourless
<b>Odour threshold:</b>	Not determined.
<b>CHANGE IN CONDITION range/value unit method</b>	
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	> 100 °C
<b>Flash point:</b>	Not applicable
<b>Inflammability (solid, gaseous)</b>	Not applicable.
<b>Ignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	Not determined.
<b>Self-inflammability</b>	Not determined.
<b>Danger of explosion:</b>	Product is not explosive.
<b>Critical values for explosion:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Steam pressure:</b>	Not determined.
<b>Density</b>	1,9800 - 1,2200 g/cm <sup>3</sup> 20°C
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Not determined.
<b>ph-value:</b>	at 20 °C 2,0+-0,3 ( 10,000 g/l Wasser g/l water)
<b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0,00 %
<b>Additional information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
  
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
No dangerous reactions known.
- **Conditions to avoid**  
No further relevant information available.
- **Materials to be avoided:**  
No further relevant information available.
  
- **Dangerous reactions**  
Reacts with base metals forming hydrogen.
- **Dangerous products of composition:**  
Nitrogen oxides (NO<sub>x</sub>)

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**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
  - 7664-38-2 Orthophosphoric acid**  
Oral, LD50: 1530 mg/kg (rat)  
Dermal, LD50: 2740 mg/kg (Rabbit)  
Inhalative, LC50 (1h): 1,69 mg/l (rat)
  - 7697-37-2 Nitric acid**  
Oral, LD50: 1530 mg/kg (rat)  
Dermal, LD50: 2740 mg/kg (rat)  
Inhalative, LC50 (4h): 7 mg/l (rat)  
Oral, LDLo: 430 mg/kg (human being)
- **Primary irritant effect:**
- **on the skin:**  
Caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.
- **Sensitization:**  
No sensitizing effect known.
- **Other information (about experimental toxicology):**  
Note: If the toxicity data relate to the mixture, the calculation is made in accordance with Annex VI, Part 3 of Regulation (EC) 1272/2008. If toxicity data are listed for individual substances they do not refer to the proportions in the mixture, but only on the materials in their standard concentrations.
- **Additional toxicological information:**  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**12 Ecological information**

- **Toxicity**
- **Acquatic toxicity:**
  - 7664-38-2 Orthophosphoric acid**  
Gambusia affinis, LC50 (96h) : 138 mg/l
  - 7697-37-2 Nitric acid**  
Gambusia affinis, LC50 (96h) : 72 mg/l  
Daphnia magna, EC50 (48h) : 0,492 mg/l
- **Information about elimination (persistence and degradability):**  
No further relevant information available.
- **Ecotoxicological effects:**
- **Behaviour in sewage processing plants:**  
If appropriate diluted product reaches the sewage processing plant, there will be no disturbance of the biodegradable activities.
- **Additional ecological information:**
- **CSB-value:**  
Not determined.
- **BSB5-value:**  
Not determined
- **AOX-indication:**  
Product contains no organic bounded halogen
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Before the waste is drained usually neutralization is necessary.  
If product reaches untreated water systems, hazardous effects on fish and other water organism are possible.
- **Results of PBT and vPvB assessment**

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- **PBT:**  
Not applicable.
- **vPvB:**  
Not applicable.
- **Other adverse effects**  
No further relevant information available.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
The allocation of the waste disposal key number is to be executed by the user according to the European waste disposal catalog (EAK) industry and product specific (origin-referred).  
The waste keys are only referring to concentrated products.
- **European waste catalogue**  
06  
WASTES FROM INORGANIC CHEMICAL PROCESSES  
06 01  
wastes from the manufacture, formulation, supply and use (MFSU) of acids  
06 01 99  
wastes not otherwise specified
- **Uncleaned packagings:**
- **Recommendation:**  
Disposal must be made according to official regulations.
- **Recommended cleaning agent:**  
Water, if necessary with cleaning agent.

**14 Transport information**

- **UN-Number**  
**ADR** UN1805  
**IMDG** UN1805  
**IATA** UN1805
- **UN proper shipping name**  
**ADR** 1805 PHOSPHORIC ACID, SOLUTION  
**IMDG** PHOSPHORIC ACID, SOLUTION  
**IATA** PHOSPHORIC ACID, SOLUTION
- **Transport hazard class(es)**  
**ADR**  
**Class** 8 (C1) Corrosive substances.  
**Label**



- IMDG**
- Class** 8 Corrosive substances.
- Label**



- IATA**
- Class** 8 Corrosive substances.

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**Label**

- **Packing group**  
**ADR** III
- IMDG** III
- IATA** III
- **Environmental hazards:**
- Marine pollutant:** No
- **Special precautions for user**  
Warning: Corrosive substances.
- Danger code (Kemler):** 80
- EMS Number:** F-A,S-B
- Segregation groups** Acids
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**  
Not applicable.
- **Transport/Additional information:**  
Not applicable.
- Excepted quantities (EQ):** E1
- Limited quantities (LQ)** 5L
- Transport category** 3
- Tunnel restriction code** E
- **UN "Model Regulation":**  
UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**  
Germany: Technical rules for dangerous materials (TRGS) in particular consider:  
TRGS 500 Protection measures : minimum standards  
TRGS 531 endangerment of the skin by work in the damp environment (damp work)  
TRGS 201 Classification and marking from wastes to the removal while handling  
Germany: Regard the principles of the professional organizations for preventive medical examinations (BGV A 4), in particular:  
G 24 Skin diseases (with exception of skin cancer)  
Germany: Regard the principles of the professional organizations rules (BGR) in particular consider:  
BGR 197: Use of skin protection
- **Classification according to VbF:**  
-
- **Classification after plant security regulation (BetrSichV):**  
-
- **Technical instructions (air):**  
No further details
- **Water hazard class:**  
In accordance with VwVwS appendix 4  
Water hazard class 1 (E) : slightly hazardous for water.Self-assessment
- **Chemical safety assessment:**  
A Chemical Safety Assessment has not been carried out.

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**PRODUCT : PASSIVATION S***(continued of page 8)***16 Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**• Relevant phrases**

H272 May intensify fire; oxidiser.  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

R 8 Contact with combustible material may cause fire.  
R 34 Causes burns.  
R 35 Causes severe burns.

**• Training hints**

Consider annual instruction and training of the coworkers  
Contents and time of the instruction are to be held in a written form and must be confirmed by the instructing people by signature. Consider storage time of the proof.

**• Recommended restriction of use**

No public product - only for commercial applications.

**• Department issuing data specification sheet:**

Laboratory department.

**• Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

**• \* Data compared to the previous version altered.**

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