

**AQUASTERIL**

Print date 12.09.2024  
Revision date 24.07.2024  
Version 1.2 (en)  
replaces version of 29.01.2024 (1.1)

---

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

Trade name/designation AQUASTERIL

**Hazard components**

hydrogen peroxide in solution, acetic acid, peracetic-acid

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

disinfectant for sanitation of drinking water systems

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

InterHygiene GmbH  
Neufelder Str. 30  
D-27472 Cuxhaven  
Telephone 04721/73400  
E-mail info@interhygiene.de  
Website www.interhygiene.de

**1.4 Emergency telephone number**

Giftnotruf München im Klinikum r.d. Isar 089/1924-0  
Österreich: Vergiftungsinformationszentrale Wien +43 1 406 43 43

---

**\* SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Org. Perox. EF, H242	Calculation method.
Met. Corr. 1, H290	Calculation method.
Acute Tox. 4, H302	Calculation method.
Acute Tox. 4, H312	Calculation method.
Acute Tox. 4, H332	Calculation method.
Skin Corr. 1A, H314	Calculation method.
Eye Dam. 1, H318	Calculation method.
STOT SE 3, H335	Calculation method.
Aquatic Chronic 1, H410	Calculation method.

**Hazard statements for physical hazards**

H242 Heating may cause a fire.  
H290 May be corrosive to metals.

**Hazard statements for health hazards**

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.

---

**AQUASTERIL**

Print date 12.09.2024  
Revision date 24.07.2024  
Version 1.2 (en)  
replaces version of 29.01.2024 (1.1)

**Hazard statements for environmental hazards**

H410 Very toxic to aquatic life with long lasting effects.

**\* 2.2 Label elements****\* Labelling according to Regulation (EC) No 1272/2008 [CLP]****Hazard components**

hydrogen peroxide in solution, acetic acid, peracetic-acid

**Hazard pictograms**

GHS02



GHS05



GHS07



GHS09

**Signal word**

Danger

**Hazard statements**

H242 Heating may cause a fire.  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H410 Very toxic to aquatic life with long lasting effects.

**\* Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read carefully and follow all instructions.  
P234 Keep only in original packaging.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of water/...  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P311 IF exposed or concerned: call poison center / doctor / ambulance.  
P405 Store locked up.  
P501 Dispose of contents to a special waste burning following official rules.

**Supplemental hazard information**

EUH071 Corrosive to the respiratory tract.

**\* Other labelling**

Use biocides safely. Always read the label and product information before use.

**2.3 Other hazards****Adverse physicochemical effects**

Risk of decomposition in contact with incompatible substances, impurities, metals, alkalis, reducing agents.  
Danger of decomposition under influence of heat.

**\* Results of PBT and vPvB assessment**

This substance / mixture does not contain components in concentrations of 0.1% or higher, which are classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

**SECTION 3: Composition / information on ingredients**
**3.1 Substances**

not applicable

**3.2 Mixtures**
**Hazardous ingredients**

CAS No	EC No	Index No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
7722-84-1	231-765-0	008-003-00-9	hydrogen peroxide in solution	20 - 30 weight-%	Ox. Liq. 1; H271 Acute Tox. 4 ; H302 Acute Tox. 4 ; H332 Skin Corr. 1A; H314	Ox. Liq. 1;H271: C>=70%**** Ox. Liq. 2;H272: 50%<=C<70%**** Skin Corr. 1A;H314: C>=70% Skin Corr. 1B;H314: 50%<=C<70% Skin Irrit. 2;H315: 35%<=C<50% Eye Dam. 1;H318: 8%<=C<50% Eye Irrit. 2;H319: 5%<=C<8% STOT SE 3;H335: C>=35% *
64-19-7	200-580-7	607-002-00-6	acetic acid	6 - 10 weight-%	Flam. Liq. 3; H226 Skin Corr. 1A; H314	Skin Corr. 1A;H314: C>=90% Skin Corr. 1B;H314: 25%<=C<90% Skin Irrit. 2;H315: 10%<=C<25% Eye Irrit. 2;H319: 10%<=C<25%
79-21-0	201-186-8		peracetic-acid	4.5 - 5.4 weight-%	Flam. Liq. 3; H226 Org. Perox. D; H242 Acute Tox. 3; H301 Acute Tox. 4; H312 Acute Tox. 3; H331 Skin Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	

REACH No.	Substance name
01-2119485845-22-0000	hydrogen peroxide in solution
01-2119475328-30-0023	acetic acid
01-2119531330-56-0004	peracetic-acid

**Additional information**

Preparation of peracetic-acid, hydrogen peroxide, acetic acid and water in equilibrium.

**AQUASTERIL**

Print date 12.09.2024  
Revision date 24.07.2024  
Version 1.2 (en)  
replaces version of 29.01.2024 (1.1)

---

**\* SECTION 4: First aid measures****\* 4.1 Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.  
In case of unconsciousness: recovery position.  
Do not leave affected person unattended.  
First aider: Pay attention to self-protection!  
Keep casualty warm, calm and covered.  
Remove affected person from the danger area and lay down.

**Following inhalation**

Remove casualty to fresh air and keep warm and at rest.  
In case of difficulty in breathing: supply oxygen, seek medical advice.  
When aerosols or fogs form, inhalation is possible.  
If breathing stops: donate breath, call for medical advice immediately.

**\* Following skin contact**

Take off contaminated, soaked clothing immediately.  
Wash the exposed skin with plenty of water for at least 15 minutes.  
If symptoms persist, get medical treatment.

**\* After eye contact**

Remove contact lenses if possible.  
Rinse the eye with plenty of water while protecting the unhurt eye (for at least 10 min.).  
In case of corrosive substances call for an emergency doctor immediately (chemical eye burn).  
If symptoms persist consult an eye specialist.

**\* Following ingestion**

Rinse mouth immediately and drink plenty of water.  
Medical treatment necessary.  
Do NOT induce vomiting.  
Do not administer activated charcoal.  
In case of corrosive substances call for an emergency doctor immediately.

**\* Self-protection of the first aider**

First aiders have to consider self-protection and wear recommended protective clothing. Avoid inhalation, ingestion and skin- and eye contact.

**\* 4.2 Most important symptoms and effects, both acute and delayed****Symptoms**

Health injuries may be delayed.  
Irritation of skin and mucous membranes.  
Headache  
Nausea  
somnolence (sleepiness)  
Dizziness  
Dizziness

**\* Effects**

Vapours may cause drowsiness and dizziness.  
Causes serious eye damage.  
Causes irritation of respiratory tract.  
Causes skin irritation.  
Strongly irritating to corrosive.  
Harmful in contact with skin and if swallowed.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

---

**\* 4.3 Indication of any immediate medical attention and special treatment needed****\* Notes for the doctor**

Treat symptomatically.

The initial focus is only on the local action, characterized by quickly progressing deep tissue damage.

The initial focus is on the local action: signs of irritation of the respiratory tract such as coughing, burning behind the sternum, tears, burning in the eyes or nose.

A specific action of the substance is unknown.

In case of substances with a high water solubility, irritations up to formation of necrosis in the upper respiratory tract may result after inhalation of caustic / irritating aerosols and mists.

**Danger! Possible loss of eyesight!**

**There is a risk of pulmonary edema!**

**Risk of aspiration by foaming.**

**Oxygen release with possible gas embolism.**

**Superficial irritations and damage up to ulcerations and scarring develop on the skin.**

**In the eye, caustic / irritating and harmful liquids cause, depending on the intensity of exposure, various levels of irritation, destruction, and ablation of the epithelium of the conjunctiva and cornea, corneal clouding, edema and ulcerations.**

**After accidental absorption in the body, the pathology and clinical findings are dependent on the kinetics of the substance (quantity of absorbed substance, the absorption time, and the effectiveness of early elimination measures (first aid, excretion met**

---

**\* SECTION 5: Firefighting measures****\* 5.1 Extinguishing media****Suitable extinguishing media**

Foam

Extinguishing powder

Carbon dioxide (CO<sub>2</sub>)

Water spray jet

**\* Unsuitable extinguishing media**

organic compounds

Full water jet

**\* 5.2 Special hazards arising from the substance or mixture****\* Hazardous combustion products**

Vapours are heavier than air and may spread along floors.

Release of oxygen may have oxidizing effect.

In case of fire hazardous gases may form.

Fire or high temperatures can cause combustion.

In case of major fires, there is a risk of deflagrations, explosions and flash flames.

Contact with the following substances may lead to ignition: ignitable substances.

In case of fire danger of decomposition with release of oxygen.

Risk of overpressure and bursting when decomposing in closed containers and pipe systems.

**\* 5.3 Advice for firefighters****\* Special protective equipment for firefighters**

In case of fire: Wear self-contained breathing apparatus.

Wear chemical protective clothes.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**\* Additional information**

Co-ordinate fire-fighting measures to the fire surroundings.  
Keep persons safe.  
Remove all sources of ignition.  
In case of fire, remove the endangered containers and bring to a safe place, if this can be done safely.  
Before approaching the source of fire undamaged packages have to be checked for signs of combustion e. g. by thermal camera.  
Cool endangered containers with water spray jet or flood with water.  
Beware of backfire.  
In case of major fires: due to the risk of deflagration, explosions and flash flames fire fighting should be done from a safe distance and under good cover.  
Always beware of spontaneous combustion.  
In case of major fires: attempt to cool down packages below combustion temperature.  
Provide sufficient reservoir for extinguishing water.  
Extinguishing water may not get into drainage system, subsoil or waters.  
In case of major fires: under certain circumstances a controlled burning may be preferred to extinguishing.  
Cover drainage.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.  
Fire water retention in Germany: see §20 AwSV.

**\* SECTION 6: Accidental release measures****\* 6.1 Personal precautions, protective equipment and emergency procedures****\* For non-emergency personnel**

Remove persons to safety.  
Keep unprotected persons away.  
Keep unauthorized persons away.  
In case of leakage or accidental release inform all authorities according to valid regulations.  
Evacuate area and do not approach spilled product.  
Remove all sources of ignition.  
Cover drainage.

**\* 6.2 Environmental precautions**

Do not let product enter waters, surface waters, soil.  
Care for water protection (collect, dam up, cover).  
In case of contamination of waters or drainage notify authorities.

**\* 6.3 Methods and material for containment and cleaning up****\* For containment**

Keep away from ignitable substances.  
Keep away from incompatible substances.  
Clean contaminated surfaces thoroughly.  
In case of larger quantities: cover sewage system.  
Recommended detergent: water.  
Flush small quantities away with plenty of water.  
Use sand or soil to stem small quantities.  
Take up with absorbent material (e.g. Chemisorb, Kieselgur, universal binding agent).  
Take up product with suitable equipment and collect in suitable containers.  
Do not take up with saw dust, textiles or other combustible materials.  
Take up mechanically and send for disposal.  
After taking up the material dispose according to regulation.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**\* Other information**

In case of spilling or accidental release notify the respective authorities according to valid regulations.  
Wear personal protective equipment.  
Take people to safety.  
Do not let product enter the sewer system.  
Separate damaged packages if possible without danger.  
Put damaged packages into salvage barrels made of plastic (not metal).  
Do not seal damaged packages and salvage barrels from air (danger of bursting by decomposition).  
Spilled product may not be put back into the original container for reuse (risk of decomposition).  
Secure or remove all sources of ignition.  
Avoid release of the product by stopping up if possible without danger.  
Do not put product back in container.  
Provide sufficient ventilation and stem leakage.  
Do not use organic material (e.g. wood) to cover leakage.

**\* 6.4 Reference to other sections**

Personal protection equipment: see section 8  
Disposal: see section 13

**\* SECTION 7: Handling and storage****\* 7.1 Precautions for safe handling****\* Protective measures**

Take the usual precautions when handling with chemicals.  
Set up safety and operation procedures.  
Provide good ventilation.  
Working site values have to be kept below the limit.  
When working site values are exceeded or in case of release of larger quantities (leakage, spilling, dust) respiratory protection has to be used.  
Do not breathe vapors, aerosols or mist.  
Provide emergency shower and eye shower.  
Avoid contact with skin and eyes.  
Wear suitable protective clothing, gloves and glasses / face protection.  
It refers to the working site and has to be defined by risk analysis according to 89/686/EWG and its amendments.  
Change moist and soaked clothes immediately.  
Wash soaked or contaminated clothes immediately with water.  
Do not wear contaminated clothes outside of work.  
Consider ergonomic requirements when choosing personal protective equipment.  
Use personal protective equipment.  
Check the correct state of personal protective equipment before use.  
The PPE used must meet the requirements of directive (EU)2016/425 and amendments (CE certification). It should be defined with regard to the workplace in the form of a risk analysis according to directive (EU)20167425 and amendments.  
Avoid contamination and heat.  
Spilled product may not be put back into the original container for reuse (risk of decomposition).  
Keep away from sources of ignition - No smoking.  
Keep away from incompatible substances.  
Avoid sun, warmth, heat.  
Keep away from inflammable substances.  
Pay attention to maximum cleanliness at the work place.  
Only fill as much product as required for the ongoing work process.  
Never use pressure to empty container.  
Avoid splashing.  
Close containers immediately after use and put them back in their respective storage.  
Avoid product spills on the containers.  
Working with fire is only allowed with written permission.  
Any work on containers and pipes should only be done after carefully rinsing and inerting.  
Use spark free tools.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**Advices on general occupational hygiene**

All contaminated protective equipments have to be cleaned after use.  
Avoid contact with skin, eyes and clothes.  
Do not breathe vapours, aerosols, mist.  
When using do not eat, drink, smoke, sniff.  
Wash contaminated clothing immediately.  
Take off moistened or soaked working clothes immediately.  
Use skin protection cream regularly.  
Wash hands and/or face before breaks and after work.  
Care for adequate ventilation.  
Prophylactic skin protection recommended.

**\* 7.2 Conditions for safe storage, including any incompatibilities****\* Technical measures and storage conditions**

Observe work place exposure limits and minimize the risk of breathing vapors and fog.  
Ensure adequate extraction/ventilation at the work site or machines.

**\* Requirements for storage rooms and vessels**

Do not store together with: heavy metals, amines and their mixtures, alkalis, reductants, metallic salts and polymerizable substances (e.g. monomers such as styrene, methyl methacrylate).

Do not store together with alkalis.

Store separately from oxidants.

Keep away from unsuitable materials.

Only use containers that are especially allowed for: peracetic acid.

Keep away from sources of ignition.

Suitable material: polytetrafluoroethylene (PTFE), glass, ceramic, stainless steel (1.4571), polyethylene, polypropylene, PVC.

Do not empty container by pressure.

Store container in a position that allows leaking liquid to be collected in a container.

Container should not be closed gas-tight.

Keep container closed well after taking out product.

Provide suitable air relief on all containers and tanks and check function regularly.

Incompatible materials: steel, iron, copper, brass, aluminum, zinc.

Control containers and tanks regularly for changes e. g. expansion, damages, leakage.

Always store and transport containers upright.

Pay attention to shelf life.

Do not smoke.

Follow proper grounding procedure to avoid static electric charges.

Secure availability of water for cases of emergency (cooling, flooding, extinguishing) and examine the functionality regularly.

For transport, storage and tank installations only use suitable materials.

Suitable floor material:

Acid-resistant

Do not enclose product in containers or pipes without air relief. Danger of overpressure and bursting in case of decomposition in closed containers and pipes.

Refer to: TRGS 510 "Storage of hazardous substances in non-stationary containers"

**\* Further information on storage conditions**

Risk group OP IV (organic peroxides) according to hazardous materials regulations.

Refer to: TRGS 510 "Storage of hazardous substances in non-stationary containers"

Refer to: Hazardous Substances Ordinance, Annex 3, Germany only

Protect from heat.

Refer to: DGUV-regulation 13, Germany only

Protect of heat.

Protect from sun.

Avoid decontamination.



**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

**7.3 Specific end use(s)**
**Recommendation**

We are unaware of any specific end uses which go beyond the data reported in section 1.

**\* SECTION 8: Exposure controls/personal protection**
**\* 8.1 Control parameters**
**\* Occupational exposure limit values**

CAS No	EC No	Substance name	occupational exposure limit value
64-19-7	200-580-7	Acetic acid	10 [ml/m <sup>3</sup> (ppm)] 25 [mg/m <sup>3</sup> ] Short-term(ml/m <sup>3</sup> ) 20 Short-term(mg/m <sup>3</sup> ) 50 2017/164/EU
64-19-7	200-580-7	Acetic acid	10 [ml/m <sup>3</sup> (ppm)] 25 [mg/m <sup>3</sup> ] Short-term(ml/m <sup>3</sup> ) 20 (1) Short-term(mg/m <sup>3</sup> ) 50 (1) (1) 15 minutes average value (IE)
7722-84-1	231-765-0	Hydrogen peroxide	1 [ml/m <sup>3</sup> (ppm)] 1,5 [mg/m <sup>3</sup> ] Short-term(ml/m <sup>3</sup> ) 2 (1) Short-term(mg/m <sup>3</sup> ) 3 (1) (1) 15 minutes reference period (IE)
64-19-7	200-580-7	Acetic acid	10 [ml/m <sup>3</sup> (ppm)] 25 [mg/m <sup>3</sup> ] Short-term(ml/m <sup>3</sup> ) 20 (1) Short-term(mg/m <sup>3</sup> ) 50 (1) (1) 15 minutes average value (UK)
7722-84-1	231-765-0	Hydrogen peroxide	1 [ml/m <sup>3</sup> (ppm)] 1,4 [mg/m <sup>3</sup> ] Short-term(ml/m <sup>3</sup> ) 2 Short-term(mg/m <sup>3</sup> ) 2,8 (UK)
79-21-0	201-186-8	Peracetic acid	Short-term(ml/m <sup>3</sup> ) 0,4 (1)(2) (1) Inhalable fraction (2) 15 minutes average value (IE)

**\* 8.2 Exposure controls**
**\* Appropriate engineering controls**
**\* Technical measures to prevent exposure**

 Provide ventilation or exhaustion at the working site.  
 Monitor work place exposure limits and reduce the risk of breathing vapours and fog.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**\* Personal protection equipment**
**\* Eye/face protection**

During monitoring in plant and laboratory: frame glasses with side protection.  
 During work that may cause spilling: basket shaped glasses.  
 When handling larger quantities: wear additional protective shield according EN 166.  
 Refer to: DGUV-regulation 112-192, Germany only  
 Refer to: BGRCI-leaflet A008, Germany only

**Hand protection**

Gloves: rubber/latex (NR), 0,22 mm, break through duration >480 min, DIN EN 374  
 Polychloroprene (CR), e.g.: Camapren 720, Kächele-Cama Latex GmbH (KCL), Germany, 0,65 mm, > 480 min.  
 DIN EN 374

**\* Body protection:**

Body protection should be chosen with regard to concentration and quantity of hazardous substances.  
 Wear acid resistant protective clothing: suitable materials are PVC, neopren, nitrile rubber, natural rubber.  
 Do not wear protective clothing that contains cotton.  
 During monitoring in plant or laboratory: usual laboratory protective clothing, protective apron.  
 During work that may cause spilling: wear protective apron, chemical protective suit.  
 When handling large quantities: wear chemical protective suit, single-use protective suit. Foot protection: high boots protective class S2 or S4 (DIN EN20345). Chemical protective suit should comply with DIN EN 943-1.  
 Refer to: DGUV-regulation 112-189  
 Refer to: BGRCI-leaflet A008, Germany only

**\* Respiratory protection**

If technical measures fail to keep concentrations in the air below the recommended workplace exposure limits suitable respiratory protective equipment has to be applied. Respirator with A2B2E2K1P2 combination filter ( Draeger), respirator with OV/AG (3M) combination filter, respirator with ABEK2P3 (3M) combination filter.  
 When the oxygen content of the air is below <17 Vol.-% or conditions are unclear wear a self contained respiratory apparatus (EN133), do not wear for longer than 30 minutes.  
 Full mask should comply with DIN EN 136.  
 Filters should comply with EN 14387.  
 Refer to: DGUV-regulation 112-190, Germany only

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

liquid

**\* Colour**

colourless

**\* Odour**

 stinging  
 like acetic acid

**Safety relevant basis data**

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	Freezing point -30- -26 °C		
Boiling point or initial boiling point and boiling range	> 60 °C pressure 1013 hPa		

**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

	Value	Method	Source, Remark
flammability			Not classified as flammable. Not to be expected based on practical experience during handling.
Lower and upper explosion limit	not determined		
Flash point		ISO 2719	foam formation not applicable
Auto-ignition temperature			The product is not self-igniting.
Auto-ignition temperature	435 °C	DIN 51794	
Decomposition temperature	≥ 60 °C		self-accelerating decomposition
pH	in delivery state approx. 0.2 (20°C)	OECD 122	
Viscosity	kinematic approx. 1.208 mm <sup>2</sup> /s (20°C)	OECD 114	
Viscosity	kinematic 0.814 mm <sup>2</sup> /s (40°C)	DIN 51562	
Solubility(ies)	Water solubility		completely miscible
Partition coefficient n-octanol/water (log value)	-1.25	calculated	
Vapour pressure	approx. 27 hPa (20°C)		
Density and/or relative density	not determined		
Relative vapour density	not determined		
particle characteristics	not determined		

**\* 9.2 Other information**
**Information with regard to physical hazard classes**
**Explosives**
**Safety characteristics**

Value	Method, Result	Source, Remark
	not explosive	

**Oxidising gas**
**Safety characteristics**

Value	Method, Result	Source, Remark
		The classification criteria are not met UN test 0.2 (oxidizing liquids).

**Pyrophoric liquids**
**Safety characteristics**

Value	Method, Result	Source, Remark
	The substance / mixture is not classified as pyrophoric.	

**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

**self-heating substances and mixtures**
**Safety characteristics**

	Value	Method, Result	Source, Remark
		The substance / mixture is not classified as self-heating.	

**Organic peroxides**
**Safety characteristics**

	Value	Method, Result	Source, Remark
		The substance / mixture is classified as organic peroxide type F.	

**Corrosive to metals**
**Safety characteristics**

	Value	Method, Result	Source, Remark
Corrosion rate (mm aluminium/year)	< 6.25	UN Transport Regulation Test C.1	The value is derived from estimations or test results of similar products (analogue conclusion).

**Other safety characteristics**

	Value	Method	Source, Remark
Surface tension	53.6 mN/m (20°C)		
Oxidising properties			oxidizing, method: according to EC directive 67/548/EEC.

**\* SECTION 10: Stability and reactivity**
**\* 10.1 Reactivity**

In case of exposure to warmth/heat, contamination or contact with unsuitable materials risk of self-accelerating, exothermic decomposition with the development of oxygen.

**\* 10.2 Chemical stability**

Product is stabilized at delivery.  
 Stable under recommended storage conditions.  
 Commercial products are stabilised to reduce risk of decomposition due to contamination.

**\* 10.3 Possibility of hazardous reactions**

Danger of overpressure and bursting in case of decomposition in closed containers and pipes.  
 Release of oxygen may support combustion.  
 A hazardous polymerisation does not occur.  
 Risk of decomposition see section 10.1

**10.4 Conditions to avoid**

Direct sunlight, warmth, heat,

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**\* 10.5 Incompatible materials**

organic solvents, possible dangerous reaction: explosion  
 ignitable materials, possible dangerous reactions: self ignition.  
 Contaminations, decomposition catalysts, metal salts, alkalis, reduction agents, metals, aluminium, zinc,  
 possible dangerous reactions: decomposition.  
 polymerizing substances: monomers such as styrene, methyl methacrylate

**10.6 Hazardous decomposition products**

decomposition products under conditions of thermal decomposition: steam, oxygen, acetic acid.

**\* SECTION 11: Toxicological information**
**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**\* Acute toxicity**

**\* Practical experience/human evidence**  
 Symptoms can be delayed.

**Animal data**

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity	ATEmix calculated: 832.8 mg/kg	estimate	
Acute dermal toxicity	LD50: 1147 mg/kg Species Rabbit	US-EPA-Methode	
Acute inhalation toxicity	Acute inhalation toxicity (dust/mist) ATEmix calculated: 2.37 mg/L		
	Acute inhalation toxicity (vapour) ATEmix calculated: 41.67 mg/L		Corrosive effect on respiratory system.

**Skin corrosion/irritation**
**Animal data**

Result / Evaluation	Method	Source, Remark
corrosive	calculation	

**Serious eye damage/irritation**
**Animal data**

Result / Evaluation	Method	Source, Remark
Corrosive		

**\* Sensitisation to the respiratory tract**

not determined

**Skin sensitisation**
**Animal data**

Result / Evaluation	Dose / Concentration	Method	Source, Remark
no sensitizing effect	Species Guinea pig	OECD 406	

**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

**\* Germ cell mutagenicity**

\* **Assessment/classification**  
no indication of mutagenicity

**Carcinogenicity**
**Animal data**

	Value	Method	Result / Evaluation	Remark
Carcinogenicity			based on the available data the classification criteria are not met	

**Reproductive toxicity**
**Animal data**

	Value	Method	Result / Evaluation	Remark
Reproductive toxicity			no indication of reproductive toxicity	

**\* STOT-single exposure**

\* **STOT SE 1 and 2**

**Animal data**

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Inhalative specific target organ toxicity (single exposure)	Species Rat		irritation to respiratory system		

**\* STOT-repeated exposure**

\* **Other information**

No data available

**\* Aspiration hazard**

\* **Remark**

Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**
**Other information**

Corrosive or irritating effect on skin, eyes or mucus membrane (respiratory tract) even when diluted. Effect appears depending on concentration within seconds to minutes.

**\* SECTION 12: Ecological information**
**12.1 Toxicity**
**Aquatic toxicity**

	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No79-21-0 peracetic-acid LC50: 1.1 mg/L Species Lepomis macrochirus (Bluegill) Test duration 96 h		

**AQUASTERIL**

 Print date 12.09.2024  
 Revision date 24.07.2024  
 Version 1.2 (en)  
 replaces version of 29.01.2024 (1.1)

	Effective dose	Method, Evaluation	Source, Remark
Chronic (long-term) fish toxicity	CAS No79-21-0 peracetic-acid NOEC 0.0069 mg/L Species Danio rerio (zebrafish) Test duration 33 d		
Acute (short-term) toxicity to crustacea	CAS No79-21-0 peracetic-acid EC50 0.73 mg/L Species Daphnia magna (Big water flea) Test duration 48 h		
Chronic (long-term) toxicity to aquatic invertebrate	CAS No79-21-0 peracetic-acid NOEC 0.0121 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No79-21-0 peracetic-acid EC50 0.16 mg/L Species Pseudokirchneriella subcapitata Test duration 72 h	US-EPA	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	CAS No79-21-0 peracetic-acid NOEC: 0.061 mg/L Species Pseudokirchneriella subcapitata Test duration 72 h	US-EPA-Methode	
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	CAS No79-21-0 peracetic-acid EC50 5.1 mg/L Species activated sludge Test duration 3 h	OECD 209	

**12.2 Persistence and degradability**

	Value	Method	Source, Remark
Biodegradation	Degradation rate 98 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	test substance: peracetic acid 40% At concentrations non toxic to bacteria. easily biodegradable

**12.3 Bioaccumulative potential**
**Assessment/classification**  
 low  
 log Pow: see chapter 9

**12.4 Mobility in soil**

No data available

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

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

This substance / mixture does not contain components in concentrations of 0.1% or higher, which are classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**12.6 Endocrine disrupting properties**

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			The substance/mixture does not contain >0.1% of components which according to REACH Art. 57(f) or regulation (EU)2017/2100 of the comission or regulation (EU)2018/605 of the comission have endocrine disruptive properties.

**12.7 Other adverse effects**
**Additional ecotoxicological information**

	Value	Method	Source, Remark
AOX			The product does not contain organically bounded halogen.

**Additional information**

Fast hydrolysis, reduction or decomposition under environmental conditions. Following substances are formed: oxygen, water, acetic acid. Acetic acid is easily bio degradable.  
Does not contain heavy metals or compounds according to EC guideline no. 76/464 e. g. arsenic, lead, cadmium, mercury, organic halogen compounds, organic compounds.

**\* SECTION 13: Disposal considerations**
**\* 13.1 Waste treatment methods**
**\* Appropriate disposal / Product**

Recommendation: give remains and non-reusable dilutions to a waste disposal.  
To be disposed of according to official rules.  
Contact authorities if necessary.  
After neutralization the product can be disposed of as sewage according to national rules.  
Package and store waste like pure substance and label accordingly.  
Classification and labelling must comply with the contents to be disposed of.  
Do not return leftovers to the packaging (risk of decomposition).

**\* Appropriate disposal / Package**

Rinse empty containers before disposal, recommended detergent: water. Give clean packages to local recycling facilities.  
Empty canisters must not be re-used and have to be disposed of according to local regulations.  
Totally emptied canisters that have not been rinsed may catch fire by decomposition of remnants. In order to avoid/reduce risk of fire avoid collection of remnants.  
Totally emptied packages can be given to the useful material compound.



**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

**Remark**

The waste code according to the European waste catalogue (2000/532/EG) can be specified in agreement with disposal facility / producer / authority.  
 A waste code according to the European waste catalogue cannot be specified for this product as the specification is based on the intended use.

**\* SECTION 14: Transport information**

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1 UN number or ID number</b>	UN 3149	UN 3149	UN 3149
<b>14.2 UN proper shipping name</b>	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED (hydrogen peroxide in solution)	Hydrogen peroxide and peroxyacetic acid mixture, stabilized (hydrogen peroxide in solution)
<b>14.3 Transport hazard class(es)</b>	5.1 (8)	5.1 (8)	5.1 (8)
<b>14.4 Packing group</b>	II	II	II
<b>14.5 Environmental hazards</b>	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS Marine pollutant	ENVIRONMENTALLY HAZARDOUS

**14.6 Special precautions for user**

No data available

**14.7 Maritime transport in bulk according to IMO instruments**

No data available

**\* All transport carriers**

Protect from warmth.  
 Separate from metal powders and permanganates and class 4.1.  
 Protect from warm radiation.

**\* Land transport (ADR/RID)**

UN number or ID number	UN 3149
UN proper shipping name	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED
Transport hazard class(es)	5.1 (8)
Hazard label(s)	5.1+8
Classification code	OC1
Packing group	II
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	1 L
Special provisions	196, 553
Tunnel restriction code	E

**Sea transport (IMDG)**

UN number or ID number	UN 3149
UN proper shipping name	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED (hydrogen peroxide in solution)

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

Transport hazard class(es)	5.1 (8)
Packing group	II
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	1 L
Marine pollutant	Yes.
EmS	F-H, S-Q

**Air transport (ICAO-TI / IATA-DGR)**

UN number or ID number	UN 3149
UN proper shipping name	Hydrogen peroxide and peroxyacetic acid mixture, stabilized (hydrogen peroxide in solution)
Transport hazard class(es)	5.1 (8)
Packing group	II
Environmental hazards	ENVIRONMENTALLY HAZARDOUS

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Other regulations (EU)****To follow:**

Annex XVII of EU directive 1907/2006 (REACH) and its amendments.

**15.2 Chemical Safety Assessment****National regulations**

No substance-related safety assessment is necessary for this product.

**\* SECTION 16: Other information**

\*

**Additional information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

**Relevant H- and EUH-phrases (Number and full text)**

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

**AQUASTERIL**

Print date	12.09.2024
Revision date	24.07.2024
Version	1.2 (en)
replaces version of	29.01.2024 (1.1)

---

H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Indication of changes**

\* Data changed compared with the previous version