

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 09/11/2023 Revision date: 06/02/2024 Supersedes version of: 12/12/2023 Version: 2.0

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

1.1. Product identifier

Product form : Mixture

: PERBAC (PAA) Trade name

UFI : C810-X01F-F00X-Y2M3

Product code : HLP4

Type of product : Biocidal products (e.g. Disinfectants, pest control)

Product group : End product

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

Relevant identified uses

Main use category : Professional use Use of the substance/mixture : Disinfectant

Uses advised against

Restrictions on use : Not for consumer sale or use

1.3. Details of the supplier of the safety data sheet

Supplier

Kersia Gateway House Pilsworth Road

Pilsworth Industrial Estate

BL9 8RD Bury **Great Britain**

T +44 (0) 1706 222288, F +44 (0) 1706 221550

info@holchem.co.uk, www.holchem.co.uk

Authorisation Holder

Holchem Ireland Limited

Trinity House Charleston Road

Ranelagh Dublin 6

Supplier

Kersia Deutschland GmbH MARIE-CURIE STRAβE 23 53332 BORNHEIM-SECHTEM

T +44 (0) 1706 222288, F +44 (0) 1706 221550 info@holchem.co.uk, www.holchem.co.uk

1.4. Emergency telephone number

: +44 (0) 1865 407333 **Emergency number**

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Organic Peroxides, Type F	H242
Corrosive to metals, Category 1	H290
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 1, Sub-Category 1A	H314
Serious eye damage/eye irritation, Category 1	H318

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Specific target organ toxicity - Single exposure, Category 3, H335

Respiratory tract irritation

Hazardous to the aquatic environment – Chronic Hazard, H410

Category 1

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Heating may cause a fire. May be corrosive to metals. Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed. May cause respiratory irritation. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)









Signal word (CLP) : Danger

Contains : acetic acid ... %; hydrogen peroxide solution... %; peracetic acid ... %

Hazard statements (CLP) : H242 - Heating may cause a fire.
H290 - May be corrosive to metals.

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.

H314 - Causes severe skin burns and eye damage. H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P234 - Keep only in original packaging. P260 - Do not breathe vapours, spray.

P264 - Wash Any exposed skin thoroughly after handling.

P273 - Avoid release to the environment.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection, protective gloves, protective clothing, face protection. P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER, a doctor.

P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER, a doctor. P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER, a doctor.

P363 - Wash contaminated clothing before reuse. P390 - Absorb spillage to prevent material damage.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P411 - Store at temperatures not exceeding 30 °C 86 °F.

P501 - Dispose of contents and container to a hazardous or special waste collection point.

EUH071 - Corrosive to the respiratory tract.

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

Acquisition, possession or use by the general public is restricted.

2.3. Other hazards

EUH-statements

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component		
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	acetic acid % (64-19-7), hydrogen peroxide solution % (7722-84-1), peracetic acid % (79-21-0)	
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	acetic acid % (64-19-7), hydrogen peroxide solution % (7722-84-1), peracetic acid % (79-21-0)	

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The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component

Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

hydrogen peroxide solution... % (7722-84-1), acetic acid ... % (64-19-7), peracetic acid . . . % (79-21-0)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrogen peroxide solution % substance with national workplace exposure limit(s) (IE)	CAS-No.: 7722-84-1 EC-No.: 231-765-0 EC Index-No.: 008-003-00-9 REACH-no: 01-2119485845- 22	≥ 10 – < 25	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 (ATE=431 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Corr. 1A, H314 STOT SE 3, H335 Aquatic Chronic 3, H412
acetic acid % substance with national workplace exposure limit(s) (IE); substance with a Community workplace exposure limit	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6 REACH-no: 01-2119475328- 30	≥ 5 – < 10	Flam. Liq. 3, H226 Skin Corr. 1A, H314
peracetic acid % (Active substance (Biocide)) substance with national workplace exposure limit(s) (IE)	CAS-No.: 79-21-0 EC-No.: 201-186-8 EC Index-No.: 607-094-00-8	≥4.5 – 5.5 ≤	Flam. Liq. 3, H226 Org. Perox. D, H242 Acute Tox. 3 (Oral), H301 (ATE=85 mg/kg bodyweight) Acute Tox. 2 (Dermal), H310 (ATE=56.1 mg/kg bodyweight) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0.204 mg/l/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 (M=10) EUH071

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
hydrogen peroxide solution %	CAS-No.: 7722-84-1 EC-No.: 231-765-0 EC Index-No.: 008-003-00-9 REACH-no: 01-2119485845- 22	$(5 \le C < 8)$ Eye Irrit. 2; H319 $(8 \le C < 50)$ Eye Dam. 1; H318 $(35 \le C < 50)$ Skin Irrit. 2; H315 $(35 \le C \le 100)$ STOT SE 3; H335 $(50 \le C < 70)$ Ox. Liq. 2; H272 $(50 \le C < 70)$ Skin Corr. 1B; H314 $(70 \le C \le 100)$ Ox. Liq. 1; H271 $(70 \le C \le 100)$ Skin Corr. 1A; H314
acetic acid %	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6 REACH-no: 01-2119475328-	(10 ≤ C < 25) Skin Irrit. 2; H315 (10 ≤ C < 25) Eye Irrit. 2; H319 (25 ≤ C < 90) Skin Corr. 1B; H314 (90 ≤ C ≤ 100) Skin Corr. 1A; H314
peracetic acid % (Active substance (Biocide))	CAS-No.: 79-21-0 EC-No.: 201-186-8 EC Index-No.: 607-094-00-8	(1 ≤ C < 100) STOT SE 3; H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash
	immediately with plenty of water. Continue rinsing. Get medical advice/attention. Burns should be treated by doctor. Wash contaminated clothing before reuse.
First-aid measures after eye contact	 Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	Rinse mouth. Do not induce vomiting. Get immediate medical advice/attention.
: :	

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

4.2. Most important symptoms and effects, both acute and delayed		
: Corrosive to the respiratory tract. Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause respiratory irritation.		
: Causes severe burns. May cause immediate skin irritation and blistering. Burns.		
: Serious damage to eyes.		
: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Burns.		

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May cause or intensify fire; oxidiser.

Hazardous decomposition products in case of fire : Toxic and corrosive fumes are released. Carbon oxides (CO, CO2). Sulfur oxides (SOx).

Oxygen.

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5.3. Advice for firefighters

Precautionary measures fire : Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire

residues and contaminated fire extinguishing water must be disposed of in accordance with

local regulations.

Firefighting instructions : Prevent fire fighting water from entering the environment. Cool laterally with water

containers exposed to flames, even after the fire is extinguished. Do not enter fire area

without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with

skin, eyes and clothing. Do not breathe mist, vapours, spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended

personal protective equipment. For further information refer to section 8: "Exposure

controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible. Contain any spills with dikes or absorbents to prevent

migration and entry into sewers or streams.

Methods for cleaning up : Absorb with an inert material and place in an appropriate waste disposal container. This

material and its container must be disposed of in a safe way, and as per local legislation.

Notify authorities if product enters sewers or public waters.

Other information : Place in an appropriate container and dispose of the contaminated material at a licensed

site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Do not breathe mist, vapours, spray.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Keep in the dark. Store away from other materials. Protect from sunlight. Keep only in original container. Keep cool. Store in corrosive resistant container with a resistant inner

liner. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Incompatible products : Refer to Section 10 on Incompatible Materials.

Maximum storage period : \leq 6 months Storage temperature : $> 0 - \leq$ 30 °C

Packaging materials : Keep only in the original container in a cool, well-ventilated place away from combustible

materials.

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7.3. Specific end use(s)

See Section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

acetic acid % (64-19-7)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Acetic acid	
IOEL TWA	25 mg/m³	
	10 ppm	
IOEL STEL	50 mg/m³	
	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164	
Ireland - Occupational Exposure Limits		
Local name	Acetic acid	
OEL TWA	25 mg/m³	
	10 ppm	
OEL STEL	50 mg/m³	
	20 ppm	
Remark	IOELV (Indicative Occupational Exposure Limit Values)	
Regulatory reference	Chemical Agents Code of Practice 2021	
hydrogen peroxide solution % (7722-84-1)		
Ireland - Occupational Exposure Limits		
Local name	Hydrogen peroxide	
OEL TWA	1.5 mg/m³	
	1 ppm	
OEL STEL	3 mg/m³	
	2 ppm	
Regulatory reference	Chemical Agents Code of Practice 2021	
peracetic acid % (79-21-0)		
Ireland - Occupational Exposure Limits		
Local name	Peracetic acid	
OEL STEL	0.4 ppm IFV (Inhlable Fraction and Vapour)	
Regulatory reference	Chemical Agents Code of Practice 2021	

DNEL and PNEC

acetic acid % (64-19-7)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	25 mg/m³	

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acetic acid % (64-19-7)		
Long-term - local effects, inhalation	25 mg/m³	
DNEL/DMEL (General population)		
Acute - local effects, inhalation	25 mg/m³	
Long-term - local effects, inhalation	25 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater)	3.058 mg/l	
PNEC aqua (marine water)	0.3058 mg/l	
PNEC aqua (intermittent, freshwater)	30.58 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	11.36 mg/kg dwt	
PNEC sediment (marine water)	1.136 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.47 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	85 mg/l	
hydrogen peroxide solution % (7722-84-1)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	3 mg/m³	
Long-term - local effects, inhalation	1.4 mg/m³	
DNEL/DMEL (General population)		
Acute - local effects, inhalation	1.93 mg/m³	
Long-term - local effects, inhalation	0.21 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater)	0.0126 mg/l	
PNEC aqua (marine water)	0.0126 mg/l	
PNEC aqua (intermittent, freshwater)	0.0138 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	0.047 mg/kg dwt	
PNEC sediment (marine water)	0.047 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.0023 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	4.66 mg/l	
peracetic acid % (79-21-0)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	560 μg/m³	
Long-term - local effects, inhalation	560 μg/m³	

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peracetic acid % (79-21-0)			
DNEL/DMEL (General population)			
Acute - local effects, inhalation	280 μg/m³		
Long-term - local effects, inhalation	280 μg/m³		
PNEC (Water)	PNEC (Water)		
PNEC aqua (freshwater)	94 μg/L		
PNEC aqua (marine water)	9.4 μg/L		
PNEC aqua (intermittent, freshwater)	1.6 µg/L		
PNEC (Sediment)			
PNEC sediment (freshwater)	3.5 µg/kg dw		
PNEC sediment (marine water)	0.35 μg/kg dw		
PNEC (STP)			
PNEC sewage treatment plant	51 μg/L		

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Do not exceed the occupational exposure limits (OEL). Provide adequate ventilation. Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Safety glasses. Wear protective gloves. Wear protective clothing.

Personal protective equipment symbol(s):







Eye and face protection

Eye protection:

Safety glasses (EN 166). Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves against chemicals (EN 374). preferably. Butyl rubber

Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Colourless.

Appearance : Clear, colorless liquid.

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Odour: Pungent.Odour threshold: Not availableMelting point: -15 °CFreezing point: Not availableBoiling point: Not available

Flammability : Heating may cause a fire.

Lower explosion limit Not available Upper explosion limit Not available Flash point : Not available Auto-ignition temperature : Not available Decomposition temperature : Not available - 55 °C SADT рΗ : < 1.5 pH solution concentration 100 % · 1 25 mm²/s Viscosity, kinematic Solubility : Soluble in water. Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available Density : 1.13 kg/l : Not available Relative density Relative vapour density at 20°C : Not available Particle characteristics : Not applicable

9.2. Other information

Information with regard to physical hazard classes

Corroded metals : Aluminium, Steel

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating may cause a fire.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Acids. Bases. Reducing agents. Flammable or combustible materials. Hydrocarbons. Organic materials. Ammonia. Amines. Ethers. May be corrosive to metals. Carbon steel. Mild steel. Aluminium. Oxidising agents. copper. Iron. Combustible materials. metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates: Carbon oxides (CO, CO2). Oxygen. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Harmful in contact with skin.

Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

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PERBAC (PAA)		
ATE CLP (oral)	814 mg/kg bodyweight	
ATE CLP (dermal)	1020 mg/kg bodyweight	
ATE CLP (dust,mist)	2.314 mg/l/4h	
·		
acetic acid % (64-19-7)		
LD50 oral rat	3310 mg/kg bodyweight Animal: rat	
LD50 oral	4960 mg/kg bodyweight Animal: mouse	
LC50 Inhalation - Rat (Vapours)	11.4 mg/l/4h	
hydrogen peroxide solution % (7722-84-1)		
LD50 oral rat	431 mg/kg	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
peracetic acid % (79-21-0)		
LD50 oral rat	85 mg/kg	
LD50 dermal rabbit	56.1 mg/kg	
LC50 Inhalation - Rat (Dust/Mist)	0.204 mg/l/4h	
, , ,	Causes severe skin burns.	
	pH: < 1.5	
acetic acid % (64-19-7)		
pH	2.4	
	Causes serious eye damage. pH: < 1.5	
acetic acid % (64-19-7)		
рН	2.4	
	Not classified	
3 ,	Not classified	
3 ,	Not classified	
	Not classified May equal respiratory irritation	
STOT-single exposure : May cause respiratory irritation. hydrogen peroxide solution % (7722-84-1)		
STOT-single exposure	May cause respiratory irritation.	
peracetic acid % (79-21-0)	may sudde respiratory initiation.	
STOT-single exposure	May cause respiratory irritation.	
	Not classified	
acetic acid % (64-19-7)		
NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male	
	Not classified	
PERBAC (PAA)		
Viscosity, kinematic	1.25 mm²/s	
acetic acid % (64-19-7)		
Viscosity, kinematic	1.015 mm²/s	

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11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 12: Ecological information

12.1. Toxicity

: Very toxic to aquatic life with long lasting effects. Ecology - general

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

Hazardous to the aquatic environment, long-term

: Very toxic to aquatic life with long lasting effects.

(chronic)

acetic acid % (64-19-7)	
LC50 - Fish [1]	> 1000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	> 300.82 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 1000 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	> 300.82 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	> 300.82 mg/l Test organisms (species): Skeletonema costatum
hydrogen peroxide solution % (7722-84-1)	
LC50 - Fish [1]	16.4 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	2.4 mg/l
EC50 72h - Algae [1]	1.38 mg/l Test organisms (species): Skeletonema costatum
ErC50 algae	1.38 mg/l Skeletonema costatum (marine diatom)
LOEC (chronic)	1.25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.63 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
peracetic acid % (79-21-0)	
LC50 - Fish [1]	1.1 mg/l
EC50 - Crustacea [1]	0.73 mg/l
EC50 72h - Algae [1]	0.16 mg/l Selenastrum capricornutum
NOEC chronic fish	0.00094 mg/l Brachydanio rerio (zebra-fish)
NOEC chronic crustacea	0.012 mg/l Daphnia magna (Water flea)
NOEC chronic algae	0.061 mg/l Selenastrum capricornutum

12.2. Persistence and degradability

PERBAC (PAA)	
Persistence and degradability	Expected to be biodegradable.

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acetic acid % (64-19-7)		
Persistence and degradability	Readily biodegradable.	
Biodegradation	96 %	
hydrogen peroxide solution % (7722-84-1)		
Persistence and degradability Rapidly degradable		
peracetic acid % (79-21-0)		
Persistence and degradability	Readily biodegradable.	

12.3. Bioaccumulative potential

PERBAC (PAA)			
Bioaccumulative potential Not determined.			
acetic acid % (64-19-7)			
Partition coefficient n-octanol/water (Log Kow) -0.17			
Bioaccumulative potential Bioaccumulation unlikely.			
hydrogen peroxide solution % (7722-84-1)			
Bioaccumulative potential Bioaccumulation unlikely.			
peracetic acid % (79-21-0)			
Partition coefficient n-octanol/water (Log Pow) -0.46			
Additional information Low bioaccumulation potential			

12.4. Mobility in soil

acetic acid % (64-19-7)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.2	
hydrogen peroxide solution % (7722-84-1)		
Ecology - soil	Can be leached out from soil.	
peracetic acid % (79-21-0)		
Additional information	Material highly soluble in water	

12.5. Results of PBT and vPvB assessment

PERBAC (PAA)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	acetic acid % (64-19-7), hydrogen peroxide solution % (7722-84-1), peracetic acid % (79-21-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	acetic acid % (64-19-7), hydrogen peroxide solution % (7722-84-1), peracetic acid % (79-21-0)

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The substance/mixture has no endocrine disrupting properties.

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12.7. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / IMDG / ADN / RID

ADR	IMDG	ADN	RID
14.1. UN number or ID number	r		'
UN 3109	UN 3109	UN 3109	UN 3109
14.2. UN proper shipping nam	е		
ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized))	ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized))	ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized))	ORGANIC PEROXIDE TYPE F LIQUID ((PEROXYACETIC ACII TYPE F, stabilized))
Transport document description			
UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized)), 5.2 (8), (D), ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized)), 5.2 (8), MARINE POLLUTANT/ENVIRONMENTALL Y HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE F, stabilized)), 5.2 (8), ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID ((PEROXYACETIC ACID, TYPE stabilized)), 5.2 (8), ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(e	es)		
5.2 (8)	5.2 (8)	5.2 (8)	5.2 (8)
5.2	5.2	5.2	5.2
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-J EmS-No. (Spillage): S-R	Dangerous for the environment: Yes	Dangerous for the environment Yes

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14.6. Special precautions for user

Overland transport

Classification code (ADR) : P1
Special provisions (ADR) : 122, 274
Limited quantities (ADR) : 125ml
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P520, IBC520

Mixed packing provisions (ADR) : MP4
Portable tank and bulk container instructions (ADR) : T23
Tank code (ADR) : L4BN(+)

Tank special provisions (ADR) : TU3, TU13, TU30, TE12, TA2, TM4

Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V1

Special provisions for carriage - Loading, unloading : CV15, CV22, CV24

and handling (ADR)

Hazard identification number (Kemler No.) : 539

Orange plates :

539 3109

Tunnel restriction code (ADR) : D

Transport by sea

Special provisions (IMDG) : 122, 274 Limited quantities (IMDG) 125 ml Excepted quantities (IMDG) : E0 Packing instructions (IMDG) P520 IBC packing instructions (IMDG) : IBC520 Tank instructions (IMDG) : T23 Stowage category (IMDG) : D Stowage and handling (IMDG) : SW1

Segregation (IMDG) : SG35, SG36, SG72

Properties and observations (IMDG) : Decomposes at elevated temperatures or in a fire. Burns vigorously. Immiscible with water

except for tert-butylhydroperoxide; dibenzoyl peroxide; dilauroylperoxide and peroxyacetic acid, type F, stabilized. Contact with the eyes and skin should be avoided. May evolve

irritant or toxic fumes.

Inland waterway transport

Classification code (ADN) : P1
Special provisions (ADN) : 122, 274
Limited quantities (ADN) : 125 ml
Excepted quantities (ADN) : E0
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : P1
Special provisions (RID) : 122, 274
Limited quantities (RID) : 125ml
Excepted quantities (RID) : E0
Packing instructions (RID) : P520, IBC520

Mixed packing provisions (RID) : MP4
Portable tank and bulk container instructions (RID) : T23
Tank codes for RID tanks (RID) : L4BN(+)

Special provisions for RID tanks (RID) : TU3, TU13, TU30, TE12, TA2, TM4

Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W7

Special provisions for carriage - Loading, unloading : CW22, CW24, CW29

and handling (RID)

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Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 539

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Biocide Regulation (528/2012)

Contains substance(s) listed on the Biocidal Products list (Regulation EU 528/2012 concerning the making available on the market and use of biocidal products)

Type of product (Biocide)
Authorisation number

Contains : peracetic acid . . . % (5.50 % (percentage))

Explosives Precursors Regulation (2019/1148)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

ANNEX I RESTRICTED EXPLOSIVES PRECURSORS

List of substances which are not to be made available to, or introduced, possessed or used by, members of the general public, whether on their own or in mixtures or substances that include those substances, unless the concentration is equal to or lower than the limit values set out in column 2, and for which suspicious transactions and significant disappearances and thefts are to be reported within 24 hours.

Name	CAS-No.	Limit value	Upper limit value for licensing under Article 5(3)	Combined Nomenclature (CN) code for a separate chemically defined compound meeting the requirements of Note 1 to Chapter 28 or 29 of the CN, respectively	code for mixture without
Hydrogen peroxide	7722-84-1	12 % w/w	35% w/w	2847 00 00	ex 3824 99 96

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	

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Abbreviations and acronyms:	
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUI	H-statements:
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH071	Corrosive to the respiratory tract.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Org. Perox. D	Organic Peroxides, Type D
Ox. Liq. 1	Oxidising Liquids, Category 1

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Full text of H- and EUH-statements:	
Ox. Liq. 2	Oxidising Liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Org. Perox. F	H242	On basis of test data
Met. Corr. 1	H290	Expert judgement
Acute Tox. 4 (Oral)	H302	Calculation method
Acute Tox. 4 (Dermal)	H312	Calculation method
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Corr. 1A	H314	Expert judgement
Eye Dam. 1	H318	On basis of test data
STOT SE 3	H335	Calculation method
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.