



Divosan Mezzo VT7

Revision: 2018-12-09

Version: 08.1

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

1.1 Product identifier

Trade name: Divosan Mezzo VT7

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

Identified uses:

For professional and industrial use only.

AISE-P801 - Food process cleaner. Cleaning In place (CIP) process

Disinfectant for closed processing systems (AISE_CS_I02 & AISE_CS_I04)

Soaking bath. Manual process (AISE_CS_I01 & AISE_CS_I10)

Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: customerservice.uk@diversey.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Ox. Liq. 2 (H272)

Skin Corr. 1A (H314)

Acute Tox. 4 (H302)

EUH071

STOT SE 3 (H335)

Aquatic Chronic 1 (H410)

Met. Corr. 1 (H290)

Acute Tox. 4 (H312)

2.2 Label elements



Signal word: Danger.

Contains hydrogen peroxide (Hydrogen Peroxide), nitric acid (Nitric Acid), acetic acid (Acetic Acid), peracetic acid (Peracetic Acid).

Hazard statements:

H272 - May intensify fire; oxidiser.

H314 - Causes severe skin burns and eye damage.

H302 - Harmful if swallowed.

EUH071 - Corrosive to the respiratory tract.

H410 - Very toxic to aquatic life with long lasting effects.

H290 - May be corrosive to metals.

H312 - Harmful in contact with skin.

Precautionary statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P221 - Take any precaution to avoid mixing with combustibles.

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P260 - Do not breathe vapours.

P280 - Wear protective gloves, protective clothing and eye or face protection.

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

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 CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
hydrogen peroxide	231-765-0	7722-84-1	01-2119485845-22	Ox. Liq. 1 (H271) Skin Corr. 1A (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Chronic 3 (H412)		10-20
nitric acid	231-714-2	7697-37-2	01-2119487297-23	Ox. Liq. 2 (H272) Skin Corr. 1A (H314) EUH071 Met. Corr. 1 (H290)		3-10
acetic acid	200-580-7	64-19-7	01-2119475328-30	Flam. Liq. 3 (H226) Skin Corr. 1A (H314)		3-10
peracetic acid	201-186-8	79-21-0	01-2119531330-56	Org. Perox. D (H242) Flam. Liq. 3 (H226) Skin Corr. 1A (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		1-3

Workplace exposure limit(s), if available, are listed in subsection 8.1.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

For the full text of the H and EUH phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information:

Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident. If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE, doctor or physician.

Skin contact:

Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:

Corrosive to the respiratory tract.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Absorb onto dry sand or similar inert material. Do not use fabric, sawdust, paper or other inflammable materials (danger of spontaneous combustion). Ensure adequate ventilation.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:

Keep away from heat.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. Keep from freezing. Keep away from heat and direct sunlight.

For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Air limit values, if available:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
hydrogen peroxide	1 ppm 1.4 mg/m ³	2 ppm 2.8 mg/m ³
nitric acid		1 ppm 2.6 mg/m ³
acetic acid	10 ppm 25 mg/m ³	20 ppm 50 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

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DNEL/DMEL and PNEC values

Human exposure

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
hydrogen peroxide	-	-	-	-
nitric acid	-	-	-	-
acetic acid	-	-	-	-
peracetic acid	-	1.25	-	1.25

DNEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
hydrogen peroxide	-	-	-	-
nitric acid	-	-	-	-
acetic acid	-	-	-	-
peracetic acid	0.12 %	-	-	-

DNEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
hydrogen peroxide	-	-	-	-
nitric acid	-	-	-	-
acetic acid	-	-	-	-
peracetic acid	0.12 %	-	-	-

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
hydrogen peroxide	3	-	1.4	-
nitric acid	No data available	-	2.6	-
acetic acid	25	-	25	-
peracetic acid	0.6	0.6	0.6	0.6

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
hydrogen peroxide	1.93	-	0.21	-
nitric acid	No data available	-	1.3	-
acetic acid	25	-	25	-
peracetic acid	0.3	0.6	0.6	0.6

Environmental exposure

Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
hydrogen peroxide	0.0126	0.0126	0.0138	4.66
nitric acid	-	-	-	-
acetic acid	3.058	0.3058	30.58	85
peracetic acid	0.000224	0.0000049	0.0016	0.051

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
hydrogen peroxide	0.047	0.047	0.0023	-
nitric acid	-	-	-	-
acetic acid	11.36	1.136	0.47	-
peracetic acid	0.00018	0.000015	0.320	-

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

Appropriate organisational controls:

Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is

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Hand protection:	strongly recommended when handling open containers or if splashes may occur. Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature. Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.
Body protection:	Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).
Respiratory protection:	Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.
Environmental exposure controls:	Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 8

Appropriate engineering controls:	No special requirements under normal use conditions.
Appropriate organisational controls:	Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection:	No special requirements under normal use conditions.
Hand protection:	No special requirements under normal use conditions.
Body protection:	No special requirements under normal use conditions.
Respiratory protection:	No special requirements under normal use conditions.

Environmental exposure controls:	No special requirements under normal use conditions.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information in this section refers to the product, unless it is specifically stated that substance data is listed

	Method / remark
Physical State: Liquid	
Colour: Clear, Colourless	
Odour: Product specific	
Odour threshold: Not applicable	
pH: ≤ 2 (neat)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	See substance data

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
hydrogen peroxide	150.2	Method not given	
nitric acid	116	Method not given	
acetic acid	103	Method not given	
peracetic acid	No data available		

	Method / remark
Flammability (liquid): Not flammable.	
Flash point (°C): Not applicable.	
Sustained combustion: Not applicable. (UN Manual of Tests and Criteria, section 32, L.2)	
Evaporation rate: Not determined	Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids	
Upper/lower flammability limit (%): Not determined	See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
acetic acid	4	17

	Method / remark
Vapour pressure: Not determined	See substance data

Substance data, vapour pressure

Ingredient(s)	Value	Method	Temperature
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	(Pa)		(°C)
hydrogen peroxide	214	Method not given	20
nitric acid	770	Method not given	20
acetic acid	1500	Method not given	20
peracetic acid	No data available		

Vapour density: Not determined
Relative density: ≈ 1.1 (20 °C)
Solubility in / Miscibility with Water: Fully miscible

Method / remark

Not relevant to classification of this product
 OECD 109 (EU A.3)

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
hydrogen peroxide	1000	Method not given	20
nitric acid	> 500	Method not given	
acetic acid	Soluble	Method not given	
peracetic acid	No data available		

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: ≥ 60 (°C) SADT (self-accelerating decomposition temperature)
Viscosity: \approx mPa.s (20 °C)
Explosive properties: Not explosive.
Oxidising properties: May intensify fire; oxidiser.

9.2 Other information

Surface tension (N/m): Not determined
Corrosion to metals: Corrosive

Not relevant to classification of this product
 Weight of evidence

Substance data, dissociation constant, if available:

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

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

Take any precaution to avoid mixing with combustibles. Reacts with alkali and metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products

Oxygen.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Mixture data:

Acute oral toxicity
LD50 Oral > 300

Relevant calculated ATE(s):

ATE - Oral (mg/kg): 300
 ATE - Dermal (mg/kg): >2000
 ATE - Inhalatory, vapours (mg/l): >20

Substance data, where relevant and available, are listed below:.

Acute toxicity

Acute oral toxicity

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Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
hydrogen peroxide	LD ₅₀	431-500	Rat	Substance was tested as 35 % aqueous solution Method not given	
nitric acid		No data available			
acetic acid	LD ₅₀	3310	Rat	Method not given	
peracetic acid	LD ₅₀	315	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
hydrogen peroxide	LD ₅₀	> 2000	Rabbit	Substance was tested as 35 % aqueous solution	
nitric acid		No data available			
acetic acid		> 2000			
peracetic acid		No data available	Rabbit		

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
hydrogen peroxide	LC ₀	No mortality observed	Rat	Method not given	4
nitric acid	LC ₅₀	> 2.65 (vapour)	Rat	OECD 403 (EU B.2)	
acetic acid	LC ₅₀	> 40	Rat	Weight of evidence	4
peracetic acid		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
hydrogen peroxide	Corrosive	Rabbit	Method not given	
nitric acid	Corrosive	Rabbit	Method not given	
acetic acid	Corrosive	Rabbit	OECD 404 (EU B.4)	
peracetic acid	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
hydrogen peroxide	Corrosive	Rabbit	Method not given	
nitric acid	Corrosive		Method not given	
acetic acid	Severe damage	Rabbit	OECD 405 (EU B.5)	
peracetic acid	Corrosive	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
hydrogen peroxide	Irritating to respiratory tract		Method not given	
nitric acid	No data available			
acetic acid	No data available			
peracetic acid	Irritating to respiratory tract	Rat	Method not given	

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
hydrogen peroxide	Not sensitising	Guinea pig	Method not given	
nitric acid	No data available			
acetic acid	Not sensitising		Method not given	
peracetic acid	Not sensitising	Guinea pig	Method not given	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
hydrogen peroxide	No data available			
nitric acid	No data available			
acetic acid	No data available			
peracetic acid	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
hydrogen peroxide	No evidence for mutagenicity	OECD 471 (EU B.12/13)	No evidence of genotoxicity, negative test results	Method not given
nitric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
acetic acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No data available	
peracetic acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	Method not given

Carcinogenicity

Ingredient(s)	Effect
hydrogen peroxide	No evidence for carcinogenicity, negative test results
nitric acid	No evidence for carcinogenicity, negative test results
acetic acid	No evidence for carcinogenicity, negative test results
peracetic acid	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
hydrogen peroxide			No data available				No evidence for reproductive toxicity
nitric acid	NOAEL	Developmental toxicity	1500	Rat	OECD 422, oral	28 day(s)	Not toxic for reproduction
acetic acid			No data available				No evidence for reproductive toxicity
peracetic acid	NOAEL		200	Rat	Not known		

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
hydrogen peroxide	NOAEL	100	Mouse	Method not given	90	
nitric acid	NOAEL	1500	Rat	OECD 422, oral	28	
acetic acid		No data available				
peracetic acid	NOAEL	1800	Rat	Method not given	14	

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
hydrogen peroxide		No data available				
nitric acid		No data available				
acetic acid		No data available				
peracetic acid		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
hydrogen peroxide	NOAEL	No data available	Mouse	Method not given	28	
nitric acid		No data available				
acetic acid		No data available				
peracetic acid		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
hydrogen peroxide			No data available					
nitric acid			No data available					
acetic acid			No data available					
peracetic acid			No data available					

STOT-single exposure

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Ingredient(s)	Affected organ(s)
hydrogen peroxide	No data available
nitric acid	No data available
acetic acid	No data available
peracetic acid	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
hydrogen peroxide	No data available
nitric acid	No data available
acetic acid	No data available
peracetic acid	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
hydrogen peroxide	LC ₅₀	16.4	<i>Pimephales promelas</i>	Method not given	96
nitric acid	LC ₅₀	12.5	<i>Gambusia affinis</i>	Method not given	96
acetic acid	LC ₅₀	75	<i>Lepomis macrochirus</i>	Method not given	96
peracetic acid	LC ₅₀	13	<i>Fish</i>	OECD 203, semi-static	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
hydrogen peroxide	EC ₅₀	2.4	<i>Daphnia pulex</i>	Method not given	48
nitric acid	EC ₅₀	8609	<i>Daphnia magna Straus</i>	Non guideline test	24
acetic acid	EC ₅₀	95	<i>Daphnia magna Straus</i>	Method not given	24
peracetic acid	EC ₅₀	3.3	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
hydrogen peroxide	EC ₅₀	2.5	<i>Chlorella vulgaris</i>	OECD 201 (EU C.3)	72
nitric acid		No data available			-
acetic acid	EC ₅₀	300.82	<i>Not specified</i>	Method not given	72
peracetic acid		No data available			-

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
hydrogen peroxide	ErC ₅₀	1.38	<i>Skeletonema costatum</i>	Method not given	72
nitric acid		No data available			-
acetic acid		No data available			-
peracetic acid		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
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hydrogen peroxide	EC ₅₀	466	Activated sludge	Method not given	
nitric acid		No data available			
acetic acid	EC ₁₀	1000	<i>Pseudomonas putida</i>	Method not given	0.5 hour(s)
peracetic acid		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
hydrogen peroxide	NOEC	4.3	<i>Pimephales promelas</i>	Method not given	96 hour(s)	
nitric acid	LD ₅₀	8226	<i>Oncorhynchus mykiss</i>	Method not given	96 hour(s)	
acetic acid		No data available				
peracetic acid		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
hydrogen peroxide	NOEC	1	<i>Daphnia pulex</i>	Method not given	48 hour(s)	
nitric acid		No data available				
acetic acid		No data available				
peracetic acid		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	
acetic acid		No data available			-	
peracetic acid		No data available			-	

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	
acetic acid		No data available			-	
peracetic acid		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	
acetic acid		No data available			-	
peracetic acid		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	

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acetic acid		No data available			-	
peracetic acid		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	
acetic acid		No data available			-	
peracetic acid		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
hydrogen peroxide		No data available			-	
nitric acid		No data available			-	
acetic acid		No data available			-	
peracetic acid		No data available			-	

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
hydrogen peroxide	24 hour(s)	Method not given	OH radical	

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT ₅₀	Method	Evaluation
hydrogen peroxide	Activated sludge, aerobe	Specific analysis (primary degradation)	> 50 % in < 1 day(s)		Not applicable (inorganic substance)
nitric acid					Not applicable (inorganic substance)
acetic acid			95 % in 5 day(s)	OECD 301D	Readily biodegradable
peracetic acid				Method not given	Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

Ingredient(s)	Value	Method	Evaluation	Remark
hydrogen peroxide	-1.57		No bioaccumulation expected	
nitric acid	-2.3	Method not given	Not relevant, does not bioaccumulate	
acetic acid	-0.17	Method not given	No bioaccumulation expected	
peracetic acid	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
hydrogen peroxide	No data available				
nitric acid	No data available				
acetic acid	3.16		Method not given	No bioaccumulation expected	
peracetic acid	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption	Desorption	Method	Soil/sediment	Evaluation
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	coefficient Log Koc	coefficient Log Koc(des)		type	
hydrogen peroxide	2				Mobile in soil
nitric acid	No data available				Mobile in aqueous environment
acetic acid	No data available				Potential for mobility in soil, soluble in water
peracetic acid	No data available				Mobile in aqueous environment

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste from residues / unused products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue:

16 09 03* - peroxides, for example hydrogen peroxide.

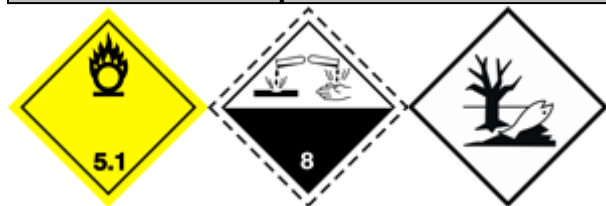
Empty packaging

Recommendation:

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: 3149

14.2 UN proper shipping name:

Hydrogen peroxide and peroxyacetic acid mixture, stabilized

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 5.1(8)

14.4 Packing group: II

14.5 Environmental hazards:

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6 Special precautions for user:

Control temperature: Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

ADR

Classification code: OC1

Tunnel restriction code: E

Hazard identification number: 58

IMO/IMDG

EmS: F-H, S-Q

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU regulations:

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation
- Regulation (EU) No 528/2012 on biocidal products

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

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UFI: JTM4-J0PY-M00U-P6HU

Ingredients according to EC Detergents Regulation 648/2004
disinfectants

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MSDS3822**Version:** 08.1**Revision:** 2018-12-09**Reason for revision:**

This data sheet contains changes from the previous version in section(s): 9, 16

Classification procedure

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the H and EUH phrases mentioned in section 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.
- 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.
- 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.
- EUH071 - Corrosive to the respiratory tract.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet