

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

1.1. Product identifier

Product form : Mixture
Product name : Clus-ster XX
UFI : 2P80-Y0HK-F004-M35Q
Product code : CLUSTERXX/10, 20, 200

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

Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Oxidising agents

1.3. Details of the supplier of the safety data sheet

Supplier

Biocel Ltd.
Rockgrove Industrial Estate
Little Island
+353 T45 CY51 Cork, Cork
Ireland
T +353 (021) 435 3516, F +353 (021) 435 4358
info@biocel.ie, www.biocel.ie

1.4. Emergency telephone number

Emergency number : +353 (021) 435 3516
Office Hours: Monday to Thursday 9.00am- 5.30pm, Friday 9.00am- 4.30pm

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]

Flammable liquids, Category 3 H226
Organic Peroxides, Type D 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
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335
Hazardous to the aquatic environment – Acute Hazard, Category 1 H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

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

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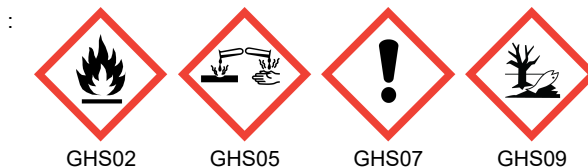
Adverse physicochemical, human health and environmental effects

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. 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)

Contains

Hazard statements (CLP)

Precautionary statements (CLP)

: Danger
: Peracetic acid; Hydrogen peroxide; Acetic acid
: H226 - Flammable liquid and vapour.
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.
H335 - May cause respiratory irritation.
H410 - Very toxic to aquatic life with long lasting effects.
: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P234 - Keep only in original packaging.
P280 - Wear protective clothing, eye protection, face protection, protective gloves.
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.
P321 - Specific treatment (see supplemental first aid instruction on this label).

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrogen peroxide	CAS-No.: 7722-84-1 EC-No.: 231-765-0	$\geq 18 - < 25$	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 STOT SE 3, H335 Aquatic Chronic 3, H412
Acetic acid substance with a Community workplace exposure limit	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6	$\geq 15 - < 20$	Flam. Liq. 3, H226 Skin Corr. 1A, H314

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Peracetic acid	CAS-No.: 79-21-0 EC-No.: 201-186-8	9 - 12	Flam. Liq. 3, H226 Org. Perox. D, H242 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Hydrogen peroxide	CAS-No.: 7722-84-1 EC-No.: 231-765-0	(5 ≤ C < 8) Eye Irrit. 2; H319 (8 ≤ C < 50) Eye Dam. 1; H318 (35 ≤ C < 50) Skin Irrit. 2; H315 (35 ≤ C < 100) STOT SE 3; H335 (50 ≤ C < 70) Skin Corr. 1B; H314 (50 ≤ C < 70) Ox. Liq. 2; H272 (63 ≤ C < 100) Aquatic Chronic 3; H412 (70 ≤ C < 100) Skin Corr. 1A; H314 (70 ≤ C < 100) Ox. Liq. 1; H271
Acetic acid	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6	(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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: First aider: Pay attention to self-protection!. Move the affected person away from the contaminated area. Remove contaminated clothing and shoes. If unconscious, place in the recovery position and seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention. Give oxygen or artificial respiration if necessary.
First-aid measures after skin contact	: Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of water. If irritation persists, consult a doctor.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Consult an eye specialist.
First-aid measures after ingestion	: Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Get medical advice/attention.

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

Symptoms/effects	: Irritation/skin corrosion. Harmful if swallowed, in contact with skin or if inhaled. Vapours may cause drowsiness and dizziness.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

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| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | : Strong water jet. May spread fire. |

5.2. Special hazards arising from the substance or mixture

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|--------------------------------------------------|------------------------------------------------------------------------------|
| Fire hazard | : Heating may cause a fire. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. Oxygen. Carbon oxides (CO, CO ₂). |

5.3. Advice for firefighters

- | | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautionary measures fire | : Evacuate area. Eliminate all ignition sources if safe to do so. Cool closed containers exposed to fire with water spray. Move containers from fire area if it can be done without personal risk. |
| Firefighting instructions | : Contain the spreading of extinguishing fluids (this product may be hazardous for the environment). Do not allow run-off from fire fighting to enter drains or water courses. |
| 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 vapours, spray, mist, fume. Evacuate unnecessary personnel. |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

For emergency responders

- | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
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6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- | | |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For containment | : Collect spillage. |
| Methods for cleaning up | : Absorb excess liquid spillage on inorganic adsorbent material such as fine sand, brick dust etc. Place spent adsorbent in sealed packages and contact specialist waste disposal contractor. Transfer the product into a spare container: - suitably labelled. Wash with plenty of water and detergent. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Do not breathe vapours, spray, mist, fume. Avoid contact with skin, eyes and clothing. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. |
| Hygiene measures | : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store away from other materials. 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.
Storage temperature	: < 40 °C
Storage area	: Protect from heat and direct sunlight.
Packaging materials	: polyethylene. polypropylene. Polytetrafluoroethylene (PTFE). Polyvinylchloride (PVC). glass. ceramic.

7.3. Specific end use(s)

1.2. Recommended uses and restrictions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Hydrogen peroxide (7722-84-1)	
Ireland - Occupational Exposure Limits	
OEL TWA	1.5 mg/m ³
	1 ppm
OEL STEL	3 mg/m ³
	2 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA)	1.4 mg/m ³
	1 ppm
WEL STEL (OEL STEL)	2.8 mg/m ³
	2 ppm
Remark	EH40 Workplace Exposure Limits (WELs) 12 2011
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	1 ppm
Remark (ACGIH)	US. ACGIH Threshold Limit Values 03 2013
Acetic acid (64-19-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	25
	10 ppm
IOEL STEL	50 mg/m ³
	20 ppm
Remark	Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2017)
Ireland - Occupational Exposure Limits	
OEL TWA	25 mg/m ³
	10 ppm
OEL STEL	37 mg/m ³

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Acetic acid (64-19-7)

15 ppm

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses with side shields. ISO 16321-1. EN 170. Wear eye protection

Skin protection

Skin and body protection:

Wear suitable protective clothing

Skin and body protection

Type	Standard
Use chemically protective clothing.	EN 943-1, EN 943-2
Safety shoes	EN ISO 20345

Hand protection:

Protective gloves. Consult glove manufacturer's product information on material suitability and material thickness.

Hand protection

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Chloroprene rubber (CR)	6 (> 480 minutes)	0.65		EN ISO 374
	Nitrile rubber (NBR)	2 (> 30 minutes)	0.33		EN ISO 374

Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Respiratory protection

Device	Filter type	Condition	Standard
Full face mask	ABEK-P3	If conc. in air > exposure limit	

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Molecular mass	: 76.05 g/mol
Odour	: stinging. vinegar odour.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: ≥ 60 Decomposition
Flammability	: Heating may cause a fire.
Explosive properties	: Not explosive.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
SADT	: ≥ 60 °C
pH	: 0.1 @ 20°C (OECD Test Guideline 122)
Viscosity, kinematic	: 1.468 mm ² /s @ 20°C (OECD Test Guideline 114)
Solubility	: Water: Completely miscible
Partition coefficient n-octanol/water (Log Kow)	: ≥ -0.26
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.12 g/ml @ 20°C (OECD Test Guideline 109)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Could burn violently and decomposition could be self-accelerating and produces large amounts of gases.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Risk of decomposition.

10.4. Conditions to avoid

Protect from heat and direct sunlight.

10.5. Incompatible materials

Impurities. Non ferrous metals (Al, Cu, Zn) and their alloys. Metallic salts. alkalis. Reducing agents.

10.6. Hazardous decomposition products

.Acetic acid .Steam. Oxygen

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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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LD50 oral	645.49 mg/kg
LC50 Inhalation - Rat	2.92 mg/l
ATE CLP (dermal)	1100 mg/kg bodyweight
ATE CLP (vapours)	2.92 mg/l/4h
ATE CLP (dust,mist)	2.92 mg/l/4h

Hydrogen peroxide (7722-84-1)

LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:US EPA Toxic Substance Health Effects Test Guidelines (PB82-232984, 1982), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Acetic acid (64-19-7)

LD50 oral rat	3310 mg/kg bodyweight Animal: rat
LD50 oral	4960 mg/kg bodyweight Animal: mouse

Skin corrosion/irritation : Causes severe skin burns.
pH: 0.1 @ 20°C (OECD Test Guideline 122)
Serious eye damage/irritation : Causes serious eye damage.
pH: 0.1 @ 20°C (OECD Test Guideline 122)
Respiratory or skin sensitisation : No sensitizing reaction was observed for guinea pigs
Germ cell mutagenicity : Mutagenicity : Ames test : negative. No mutagenic effect
Carcinogenicity : No data available
Reproductive toxicity : No data available
STOT-single exposure : May cause respiratory irritation.

Hydrogen peroxide (7722-84-1)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	No data available

Acetic acid (64-19-7)

NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male
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Aspiration hazard : Not classified

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Viscosity, kinematic	1.468 mm²/s @ 20°C (OECD Test Guideline 114)
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Acetic acid (64-19-7)

Viscosity, kinematic	1.015 mm²/s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

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

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Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Peracetic acid (79-21-0)	
LC50 - Fish [1]	0.08 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	0.73 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.16 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.0121 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Hydrogen peroxide (7722-84-1)	
LC50 - Fish [1]	16.4 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	2.4 mg/l Test organisms (species): Daphnia pulex (freshwater, semi static test)
EC50 72h - Algae [1]	2.62 mg/l Test organisms (species): Skeletonema costatum
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'
NOEC chronic fish	5 mg/l Test organisms (species): Pimephales promelas
NOEC chronic crustacea	1 mg/l Test organisms (species): Daphnia pulex (freshwater, semi static test)(48 h)
NOEC chronic algae	0.63 mg/l Test organisms (species): Skeletonema costatum (72 h)

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

12.2. Persistence and degradability

Clus-ster XX	
Persistence and degradability	Readily biodegradable.
Biodegradation	98 % Aerobic, 28 d (OECD Test Guideline 301 E)
Peracetic acid (79-21-0)	
Persistence and degradability	Not rapidly degradable
Hydrogen peroxide (7722-84-1)	
Persistence and degradability	Not rapidly degradable
Acetic acid (64-19-7)	
Persistence and degradability	Not rapidly degradable

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12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Kow)	≥ -0.26
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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Results of PBT assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Do not re-use empty containers. Recycle following cleaning. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations.

SECTION 14: Transport information


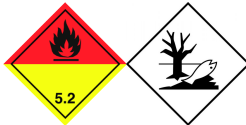
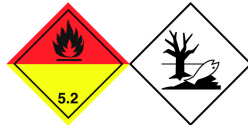
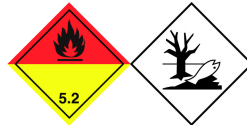
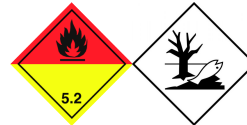
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3109	UN 3109	UN 3109	UN 3109	UN 3109
14.2. UN proper shipping name				
ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide)	Organic peroxide type F, liquid (CONTAINS : Peracetic acid ; Hydrogen peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide)
Transport document description				
UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide), 5.2, (D), ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide), 5.2, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 3109 Organic peroxide type F, liquid (CONTAINS : Peracetic acid ; Hydrogen peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (CONTAINS : Peracetic acid ; Hydrogen peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
5.2	5.2	5.2	5.2	5.2

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ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
Not applicable	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	Dangerous for the environment: Yes
No supplementary information available				

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 and handling (ADR)	: CV15, CV22, CV24
Hazard identification number (Kemler No.)	: 539
Orange plates	: 

Tunnel restriction code (ADR)	: D
EAC code	: 2W

Transport by sea

Special provisions (IMDG)	: 122, 274
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.

Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 570

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PCA max net quantity (IATA) : 10L
CAO packing instructions (IATA) : 570
CAO max net quantity (IATA) : 25L
Special provisions (IATA) : A20, A150, A802
ERG code (IATA) : 5L

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 and handling (RID) : CW22, CW24, CW29
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)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	Peracetic acid ; Hydrogen peroxide ; Acetic acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Peracetic acid ; Hydrogen peroxide ; Acetic acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Peracetic acid ; Hydrogen peroxide	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
40.	Peracetic acid ; Acetic acid	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

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)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

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	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Hydrogen peroxide	7722-84-1	12 % w/w	35% w/w	2847 00 00	ex 3824 99 96

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)

National regulations

Germany

- Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
- Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
- Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 2. The following requirement must be observed: Basic requirements for the implementation of the submission (according to § 8 paragraph 1, 3 and 4).
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

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Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – : None of the components are listed
Vruchtbaarheid
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. Chemical safety assessment

No 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
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level

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Abbreviations and acronyms:

EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
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
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
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
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.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

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Full text of H- and EUH-statements:	
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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
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

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.