# Serpent 15

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 09/10/2020 Revision date: 25/11/2024 Version: 1.0

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

### 1.1. Product identifier

Product form : Mixture
Product name : Serpent 15
UFI : X8N0-90Q5-S00X-X5UE
Product code : P53

### 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 : Biocide
Bactericide

### 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<br>Beaumont Hospital | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566 (Healthcare professionals- 24/7)<br>+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 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 |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 |
| Hazardous to the aquatic environment – Chronic Hazard, Category 1 | H410 |

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. 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) :

GHS02 GHS05 GHS07 GHS09

Signal word (CLP) : Danger

Contains : Peracetic acid; Hydrogen peroxide; Acetic 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.
H335 - May cause respiratory irritation.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from sparks, open flames, hot surfaces, heat. No smoking.
P273 - Avoid release to the environment.
P280 - Wear protective clothing, eye protection, face protection, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
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.
P308+P311 - IF exposed or concerned: Call a POISON CENTER, doctor.

## 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 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<br>EC-No.: 231-765-0 | ≥ 20 - < 25 | Ox. Liq. 1, H271<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Inhalation), H332<br>Skin Corr. 1A, H314<br>STOT SE 3, H335<br>Aquatic Chronic 3, H412 |
| Acetic acid<br>substance with a Community workplace exposure limit | CAS-No.: 64-19-7<br>EC-No.: 200-580-7<br>EC Index-No.: 607-002-00-6 | ≥ 15 - < 20 | Flam. Liq. 3, H226<br>Skin Corr. 1A, H314 |
| Peracetic acid | CAS-No.: 79-21-0<br>EC-No.: 201-186-8 | 14 - 17 | Flam. Liq. 3, H226<br>Org. Perox. D, H242<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Dermal), H312<br>Acute Tox. 4 (Inhalation), H332<br>Skin Corr. 1A, H314<br>Aquatic Acute 1, H400 (M=10)<br>Aquatic Chronic 1, H410 (M=10) |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits (%)** |
| Hydrogen peroxide | CAS-No.: 7722-84-1<br>EC-No.: 231-765-0 | (5 ≤ C < 8) Eye Irrit. 2; H319<br>(8 ≤ C < 50) Eye Dam. 1; H318<br>(35 ≤ C < 50) Skin Irrit. 2; H315<br>(35 ≤ C < 100) STOT SE 3; H335<br>(50 ≤ C < 70) Skin Corr. 1B; H314<br>(50 ≤ C < 70) Ox. Liq. 2; H272<br>(63 ≤ C < 100) Aquatic Chronic 3; H412<br>(70 ≤ C < 100) Skin Corr. 1A; H314<br>(70 ≤ C < 100) Ox. Liq. 1; H271 |
| Acetic acid | CAS-No.: 64-19-7<br>EC-No.: 200-580-7<br>EC Index-No.: 607-002-00-6 | (10 ≤ C < 25) Skin Irrit. 2; H315<br>(10 ≤ C < 25) Eye Irrit. 2; H319<br>(25 ≤ C < 90) Skin Corr. 1B; H314<br>(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. Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention. Give oxygen or artificial respiration if necessary. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. If irritation persists, consult a doctor. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

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. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Get medical advice/attention. Do not induce vomiting. Call a physician immediately.

### 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.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : 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 : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Strong water jet. May spread fire.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Heating may cause a fire.

Hazardous decomposition products in case of fire : Oxygen. Carbon oxides (CO, CO2).

### 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. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 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".

### 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 : Take up liquid spill into absorbent material. 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. Notify authorities if product enters sewers or public waters.

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

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. 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 dust/fume/gas/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

Storage conditions : 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.

Incompatible materials : combustible materials. Metals.

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/m³ |
| | 1 ppm |
| OEL STEL | 3 mg/m³ |
| | 2 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 1.4 mg/m³ |
| | 1 ppm |
| WEL STEL (OEL STEL) | 2.8 mg/m³ |
| | 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/m³ |
| | 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/m³ |
| | 10 ppm |
| OEL STEL | 37 mg/m³ |
| | 15 ppm |

### 8.2. Exposure controls

**Appropriate engineering controls**

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

### 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. Safety glasses

### 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:**
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.

## 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 @ 20°C (OECD Test Guideline 122) |
| Viscosity, kinematic | : | 1.554 mm²/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 | : | 1.14 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. Heating may cause a fire.

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

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

.Acetic acid .Steam. Oxygen

## 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. |

| Serpent 15 | |
|---|---|
| LD50 oral | 1015 mg/kg |
| LC50 Inhalation - Rat | ≈ 2.24 mg/l |
| ATE CLP (dermal) | 1100 mg/kg bodyweight |
| ATE CLP (dust,mist) | 4.054 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) |

| 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 : Harmful in contact with skin. Corrosive
pH: ≈ 0 @ 20°C (OECD Test Guideline 122)

Serious eye damage/irritation : Assumed to cause serious eye damage
pH: ≈ 0 @ 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 |

Aspiration hazard : Not classified

| Serpent 15 | |
|---|---|
| Viscosity, kinematic | 1.554 mm²/s @ 20°C (OECD Test Guideline 114) |

| Acetic acid (64-19-7) | |
|---|---|
| Viscosity, kinematic | 1.015 mm²/s |

### 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.

Hazardous to the aquatic environment, short–term (acute) : Not classified

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): Dapnia 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): Dapnia 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

| Serpent 15 | |
|---|---|
| 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 |

## 12.3. Bioaccumulative potential

| Serpent 15 | |
|---|---|
| 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

| Serpent 15 | |
|---|---|
| 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. |

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

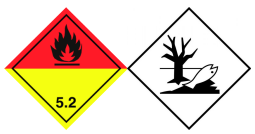
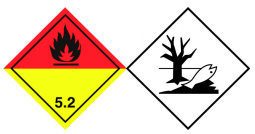
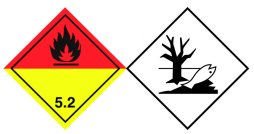
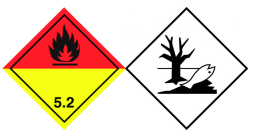
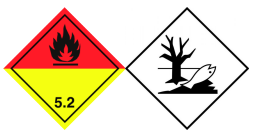
## SECTION 13: Disposal considerations

### 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/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 | 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 |
|  |  |  |  |  |
| **14.4. Packing group** | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| **14.5. Environmental hazards** | | | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes<br>Marine pollutant: Yes<br>EmS-No. (Fire): F-J<br>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
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)

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)

#### 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)

#### 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 – Vruchtbaarheid : None of the components are listed

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 |
| 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 |

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

| 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. |

| 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.