

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Serpent  
Product code : P53

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use  
Use of the substance/mixture : Biocide  
Bactericide

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Biocel Ltd.  
Rockgrove Industrial Estate  
Little Island  
P45 CY51 Cork - Ireland  
T +353 (021) 435 3516 - F +353 (021) 435 4358  
[info@biocel.ie](mailto:info@biocel.ie) - [www.biocel.ie](http://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

### 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,	H335
Respiratory tract irritation	
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of H 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) :



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	GHS02	GHS05	GHS07	GHS09
Signal word (CLP)	: Danger			
Hazardous ingredients	: 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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 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	≥ 20 - < 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	(CAS-No.) 64-19-7 (EC-No.) 200-580-7 (EC Index-No.) 607-002-00-6	≥ 15 - < 20	Flam. Liq. 3, H226 Skin Corr. 1A, H314
Peracetic acid	(CAS-No.) 79-21-0 (EC-No.) 201-186-8	14 - 17	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)

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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-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.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

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

### 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.

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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

##### 6.1.1. 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.

##### 6.1.2. 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 : 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

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.

#### 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.

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Hydrogen peroxide (7722-84-1)

###### Ireland - Occupational Exposure Limits

OEL (8 hours ref) (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	1 ppm
OEL (15 min ref) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
OEL (15 min ref) (ppm)	2 ppm
Notes (IE)	Occupational Exposure Limits (2016)

###### United Kingdom - Occupational Exposure Limits

WEL TWA (mg/m <sup>3</sup> )	1.4 mg/m <sup>3</sup>
WEL TWA (ppm)	1 ppm
WEL STEL (mg/m <sup>3</sup> )	2.8 mg/m <sup>3</sup>
WEL STEL [ppm]	2 ppm
Remark (WEL)	EH40 Workplace Exposure Limits (WELs) 12 2011

###### USA - ACGIH - Occupational Exposure Limits

ACGIH TWA (ppm)	1 ppm
Remark (ACGIH)	US. ACGIH Threshold Limit Values 03 2013

##### Acetic acid (64-19-7)

###### EU - Occupational Exposure Limits

IOELV TWA (mg/m <sup>3</sup> )	25
IOELV TWA (ppm)	10 ppm
IOELV STEL (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
IOELV STEL (ppm)	20 ppm
Notes	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 (8 hours ref) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	10 ppm
OEL (15 min ref) (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
OEL (15 min ref) (ppm)	15 ppm
Notes (IE)	Occupational Exposure Limits (2016)

#### 8.2. Exposure 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.

##### Hand protection:

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

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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

### Eye protection:

Safety glasses with side shields. EN 166. EN 170

### Skin and body protection:

Wear suitable protective clothing

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

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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

### Personal protective equipment symbol(s):



### 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
Molecular mass	: 76.05 g/mol
Colour	: Colourless.
Odour	: stinging. vinegar odour.
Odour threshold	: No data available
pH	: ≈ 0 @ 20°C (OECD Test Guideline 122)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: ≥ 60 Decomposition
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Heating may cause a fire.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.14 g/ml @ 20°C (OECD Test Guideline 109)
Solubility	: Water: Completely miscible
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: ≥ -0.26

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Viscosity, kinematic	: 1.554 mm <sup>2</sup> /s @ 20°C (OECD Test Guideline 114)
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

SADT : ≥ 60 °C

## 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

Steam. Oxygen. Acetic acid.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed or in contact with skin.
Acute toxicity (dermal)	: Harmful in contact with skin or if inhaled.
Acute toxicity (inhalation)	: Harmful if inhaled.

Serpent	
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

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Skin corrosion/irritation	: Harmful in contact with skin. Corrosive pH: $\approx 0$ @ 20°C (OECD Test Guideline 122)
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: $\approx 0$ @ 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.
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

### Serpent

Viscosity, kinematic	1.554 mm <sup>2</sup> /s @ 20°C (OECD Test Guideline 114)
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## 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.
Not rapidly degradable	

### Peracetic acid (79-21-0)

LC50 fish 1	0.08 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 Daphnia 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 Daphnia 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)



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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 Daphnia 1	> 1000 mg/l Test organisms (species): Daphnia magna
EC50 Daphnia 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	
Persistence and degradability	Readily biodegradable.
Biodegradation	98 % Aerobic, 28 d (OECD Test Guideline 301 E)

### 12.3. Bioaccumulative potential

Serpent	
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	
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. 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 / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 3109	UN 3109	UN 3109	UN 3109	UN 3109

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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
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	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

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EmS-No. (Fire)	: F-J
EmS-No. (Spillage)	: S-R
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. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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### 15.1.2. 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)
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject of 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
- NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
- NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
- NIET-limitatieve lijst van voor de voortplanting giftige 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

### 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
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

# Serpent

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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
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
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.
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.

# Serpent

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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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.