

SAFETY DATA SHEET

SAVON BIO

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

1.1. Product identifier

Product name	SAVON BIO
Product number	7445/22021
UFI	UFI: 75MN-H0E0-500F-UC5Q

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

Identified uses	Detergent. Cleaning agent.
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1.3. Details of the supplier of the safety data sheet

Supplier	Spectrum Cleaning Solutions Ltd Units 9-10 66 Londesborough Road Scarborough YO12 5AF T: 01723 373509 F: 01723 377726 E: sales@spectrumcleaningsolutions.co.uk
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1.4. Emergency telephone number

Emergency telephone	Tel: 01274 393286, Fax: 01274 309143 (8.30am-5pm Monday to Friday)
National emergency telephone number	NHS Direct 111 (GB) National Poisons Information Service Tel: +44 344 892 0111 (UK) - Medical Professionals Only National Poisons Information Centre Tel: +353 (01) 809 2566 (Ireland) - Healthcare Professionals only (24 hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Eye Dam. 1 - H318
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Danger
Hazard statements	H318 Causes serious eye damage.
Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor.
Contains	Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide, Alcohols, C13-15, branched and linear, ethoxylated
Detergent labelling	15 - < 30% phosphates, < 5% anionic surfactants, < 5% enzymes, < 5% non-ionic surfactants, < 5% optical brighteners, < 5% perfumes, < 5% soap, Contains 1,2-BENZOISOTHIAZOL-3(2H)-ONE

2.3. Other hazards

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This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<p>Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide</p> <p>CAS number: — EC number: 932-051-8</p>	3-5%
<p>Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412</p>	
<p>Alcohols, C13-15, branched and linear, ethoxylated</p> <p>CAS number: 157627-86-6 EC number: 931-954-4</p>	3-5%
<p>Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412</p>	
<p>Treated amorphous silica</p> <p>CAS number: 2035064-87-8</p>	<1%
<p>Classification Not Classified</p>	
<p>ETHANEDIOL</p> <p>CAS number: 107-21-1 EC number: 203-473-3</p>	<1%
<p>Classification Acute Tox. 4 - H302 STOT RE 2 - H373</p>	
<p>d-LIMONENE</p> <p>CAS number: 5989-27-5 EC number: 227-813-5 M factor (Acute) = 1 M factor (Chronic) = 1</p>	0.0069%
<p>Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410</p>	

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<p>a-hexylcinnamaldehyde 0.0069%</p> <p>CAS number: 101-86-0 EC number: 202-983-3</p> <p>M factor (Acute) = 1</p>
<p>Classification</p> <p>Skin Sens. 1B - H317</p> <p>Aquatic Acute 1 - H400</p> <p>Aquatic Chronic 2 - H411</p>
<p>Linalool 0.0042%</p> <p>CAS number: 78-70-6 EC number: 201-134-4</p>
<p>Classification</p> <p>Skin Irrit. 2 - H315</p> <p>Eye Irrit. 2 - H319</p> <p>Skin Sens. 1B - H317</p>
<p>subtilisin <1%</p> <p>CAS number: 9014-01-1 EC number: 232-752-2</p> <p>M factor (Acute) = 1</p>
<p>Classification</p> <p>Acute Tox. 4 - H302</p> <p>Skin Irrit. 2 - H315</p> <p>Eye Dam. 1 - H318</p> <p>Resp. Sens. 1 - H334</p> <p>STOT SE 3 - H335</p> <p>Aquatic Acute 1 - H400</p> <p>Aquatic Chronic 2 - H411</p>
<p>Alpha-IsoMethyl Ionone 0.0017%</p> <p>CAS number: 127-51-5 EC number: 204-846-3</p>
<p>Classification</p> <p>Aquatic Chronic 2 - H411</p>
<p>Diethyl phthalate <1%</p> <p>CAS number: 84-66-2 EC number: 201-550-6</p>
<p>Classification</p> <p>Not Classified</p>
<p>CITRAL 0.0006%</p> <p>CAS number: 5392-40-5 EC number: 226-394-6</p>
<p>Classification</p> <p>Skin Irrit. 2 - H315</p> <p>Skin Sens. 1 - H317</p>

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GERANIOL		0.0003%
CAS number: 106-24-1	EC number: 203-377-1	
Classification		
Skin Irrit. 2 - H315		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
potassium hydroxide		<1%
CAS number: 1310-58-3	EC number: 215-181-3	
Classification		
Met. Corr. 1 - H290		
Acute Tox. 4 - H302		
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if symptoms are severe or persist. Remove affected person from source of contamination.
Inhalation	Unlikely route of exposure as the product does not contain volatile substances. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Give milk instead of water if readily available. Get medical attention immediately.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Spray/mists may cause respiratory tract irritation. This is unlikely to occur but symptoms similar to those of ingestion may develop.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	May cause skin irritation.
Eye contact	Severe irritation, burning and tearing.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	No unusual fire or explosion hazards noted.
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Hazardous combustion products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting If risk of water pollution occurs, notify appropriate authorities. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Flush spilled material into suitable retaining areas or container with large quantities of water. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Avoid contact with skin and eyes. Keep container tightly sealed when not in use.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep above the chemical's freezing point to avoid rupturing the container. Keep container tightly closed.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Treated amorphous silica

Long-term exposure limit (8-hour TWA): 0.08 mg/m³ respirable dust

ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 104 mg/m³(Sk)

subtilisin

Long-term exposure limit (8-hour TWA): WEL 0.00004 mg/m³

Sen

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Diethyl phthalate

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

Short-term exposure limit (15-minute): WEL 10 mg/m³

potassium hydroxide

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit.

Sen = Capable of causing occupational asthma.

PENTASODIUM TRIPHOSPHATE (CAS: 7758-29-4)

DNEL

Workers - Dermal; Short term systemic effects: 0.375 mg/kg bw/day
 Workers - Inhalation; Short term systemic effects: 0.661 mg/m³
 Workers - Dermal; Long term systemic effects: 0.375 mg/kg bw/day
 Workers - Inhalation; Long term systemic effects: 0.661 mg/l
 General population - Dermal; Short term systemic effects: 0.375 mg/kg
 General population - Inhalation; Short term systemic effects: 0.66 mg/kg bw/day
 General population - Oral; Short term systemic effects: 0.75 mg/kg
 General population - Oral; Long term systemic effects: 0.75 mg/kg bw/day
 General population - Inhalation; Long term systemic effects: 0.661 mg/m³
 General population - Dermal; Long term systemic effects: 0.375 mg/kg bw/day

PNEC

- Fresh water; 0.005 mg/l
 - marine water; 0.005 mg/l
 - Intermittent release, Fresh water; 0.05 mg/l
 - Sediment (Freshwater); 0.19 mg/kg dw
 - Soil; 0.14 mg/kg dw

Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

DNEL

Workers - Dermal; Long term systemic effects: 85 mg/kg bw/day
 Workers - Inhalation; Long term systemic effects: 6 mg/m³
 Consumer - Dermal; Long term systemic effects: 42.5 mg/kg bw/day
 Consumer - Inhalation; Long term systemic effects: 1.5 mg/m³
 Consumer - Oral; Long term systemic effects: 0.425 mg/kg bw/day

PNEC

- Fresh water; 0.268 mg/l
 - marine water; 0.0268 mg/l
 - Intermittent release; 0.055 mg/l
 - STP; 5.6 mg/l
 - Sediment (Freshwater); 8.1 mg/kg dw
 - Sediment (Marinewater); 8.1 mg/kg dw
 - Soil; 35 mg/kg dw

Distyryl Biphenyl Derivative (CAS: 27344-41-8)

DNEL

Workers - Dermal; Long term systemic effects: 53 mg/kg
 Consumer - Dermal; Long term systemic effects: 19 mg/kg
 Consumer - Oral; Long term systemic effects: 1.9 mg/kg
 Workers - Inhalation; Long term systemic effects: 20.5 mg/m³

PNEC

Fresh water; 0.0625 mg/l
 marine water; 0.00625 mg/l
 Intermittent release; 0.1028 mg/l
 STP; 100 mg/l
 Sediment (Freshwater); 198000 mg/kg
 Sediment (Marinewater); 19800 mg/kg
 Soil; 1 mg/kg

α-hexylcinnamaldehyde (CAS: 101-86-0)

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DNEL

Workers - Inhalation; Long term systemic effects: 0.078 mg/m³
Workers - Inhalation; Short term local effects: 6.28 mg/m³
Workers - Dermal; Long term systemic effects: 18.2 mg/kg bw/day
Workers - Dermal; Long term local effects: 0.525 mg/cm²
Consumer - Inhalation; Long term systemic effects: 0.019 mg/m³
Consumer - Inhalation; Short term local effects: 4.71 mg/m³
Consumer - Dermal; Long term systemic effects: 9.11 mg/kg bw/day
Consumer - Dermal; Long term local effects: 0.0787 mg/cm²
Consumer - Dermal; Short term local effects: 0.0787 mg/cm²
Consumer - Oral; Long term systemic effects: 0.056 mg/kg bw/day

PNEC

Fresh water; 0.00126 mg/l
marine water; 0.000126 mg/l
STP; 10 mg/l
Sediment (Freshwater); 3.2 mg/kg dwt
Sediment (Marinewater); 0.064 mg/kg dwt
Soil; 9.51 mg/kg dwt

subtilisin (CAS: 9014-01-1)

DNEL

Workers - Inhalation; Long term systemic effects: 0.00006 mg/m³
Workers - Inhalation; Long term local effects: 0.00006 mg/m³
Consumer - Inhalation; Long term systemic effects: 0.000015 mg/m³
Consumer - Oral; Long term systemic effects: 1.8 mg/kg
Consumer - Oral; Short term systemic effects: 3.6 mg/kg

PNEC

Fresh water; 0.0017 mg/l
marine water; 0.00017 mg/l
STP; 65000 µg/l
Intermittent release; 0.0009 mg/l
Soil; 0.568 mg/kg

Tetrahydro Linalool (CAS: 78-69-3)

DNEL

Workers - Inhalation; Long term systemic effects: 2.75 mg/m³
Workers - Dermal; Long term systemic effects: 2.5 mg/kg bw/day
Workers - Dermal; Short term local effects: 2.76 mg/cm²
Consumer - Inhalation; Long term systemic effects: 0.68 mg/m³
Consumer - Oral; Long term systemic effects: 0.2 mg/kg bw/day
Consumer - Dermal; Long term systemic effects: 1.25 mg/kg bw/day
Consumer - Dermal; Short term local effects: 2.76 mg/cm²

PNEC

Fresh water; 0.0089 mg/l
marine water; 0.00089 mg/l
STP; 450 mg/l
Sediment (Freshwater); 0.0821 mg/kg
Sediment (Marinewater); 0.00821 mg/kg
Soil; 0.0112 mg/kg

GERANIOL (CAS: 106-24-1)

DNEL

Workers - Inhalation; Long term systemic effects: 161.6 mg/m³
Workers - Dermal; Long term systemic effects: 12.5 mg/kg
Consumer - Oral; Long term systemic effects: 13.75 mg/kg
Consumer - Inhalation; Long term systemic effects: 47.8 mg/m³
Consumer - Dermal; Long term systemic effects: 7.5 mg/kg

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls	Provide adequate ventilation if the airborne contamination exceeds occupational exposure limits
Eye/face protection	Safety glasses with side-shields (EN 166).
Hand protection	Chemical resistant PVC/Nitrilrubber gloves (to European standard EN 374 or equivalent). Thickness: 0,4 mm. Penetration time: >480 min (level 6). The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Other skin and body protection	Wear suitable protective clothing (EN14605)
Hygiene measures	Do not eat, drink or smoke when using this product.
Respiratory protection	Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Opaque liquid.
Colour	White.
Odour	Perfume.
pH	pH (concentrated solution): 8-8.5 pH (diluted solution): 9-10 1%
Melting point	> 10°C
Initial boiling point and range	> 100°C @ 760 mm Hg
Relative density	1.15 - 1.17 @ 20°C
Solubility(ies)	Miscible with water.
Viscosity	1000-1500 cP @ 20°C

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Oxidising agents. Reducing agents.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with: Oxidising agents. Reducing agents.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong reducing agents.
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10.6. Hazardous decomposition products

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Hazardous decomposition products

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	Not regarded as a health hazard under current legislation.
Acute toxicity - oral	
Notes (oral LD ₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	16,556.29
Acute toxicity - dermal	
Notes (dermal LD ₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation	
Notes (inhalation LC ₅₀)	Based on available data the classification criteria are not met.
Skin corrosion/irritation	
Skin corrosion/irritation	May cause skin irritation.
Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation	
Serious eye damage/irritation	Causes serious eye damage.
Respiratory sensitisation	
Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin sensitisation	
Skin sensitisation	Based on available data the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard	
Aspiration hazard	Based on available data the classification criteria are not met.
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Spray/mists may cause respiratory tract irritation. This is unlikely to occur but symptoms similar to those of ingestion may develop.
Ingestion	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Irritating to skin.

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Eye contact	Risk of serious damage to eyes. Symptoms following overexposure may include the following: Redness. Pain.
Acute and chronic health hazards	This product may cause skin and eye irritation. Repeated exposure may cause chronic eye irritation. Mild dermatitis, allergic skin rash.
Route of exposure	Skin and/or eye contact Ingestion
Toxicological information on ingredients.	

PENTASODIUM TRIPHOSPHATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE oral (mg/kg) 2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 4,641.0

Species Rabbit

ATE dermal (mg/kg) 4,641.0

Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,500.0

Species Rat

ATE oral (mg/kg) 3,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rat

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 85 mg/kg, Oral, Rat LOAEL 145 mg/kg, Oral, Rat NOAEL 440 mg/kg, Dermal, Mouse

Alcohols, C13-15, branched and linear, ethoxylated

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,150.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rat

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ATE dermal (mg/kg) 2,001.0

Carboxymethyl Cellulose

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE oral (mg/kg) 2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 5.6

Species Rat

ATE inhalation (dusts/mists mg/l) 5.6

Distyryl Biphenyl Derivative

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 3.9

Species Rat

2,6-Dimethyl-7-octen-2-ol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,600.0

Species Rat

ATE oral (mg/kg) 3,600.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,001.0

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Species Rabbit

Treated amorphous silica

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,001.0

Species Rat

4-tertiary-butyl-cyclohexyl-acetate

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 3,370.0

Species Rat

ATE oral (mg/kg) 3,370.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,001.0

Species Rabbit

ATE dermal (mg/kg) 5,001.0

d-LIMONENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 4,400.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,001.0

Species Rabbit

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

a-hexylcinnamaldehyde

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 3,100.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 3,001.0

Species Rabbit

ATE dermal (mg/kg) 3,001.0

Linalool

Acute toxicity - oral

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Acute toxicity oral (LD₅₀
mg/kg) 2,790.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 2,000.0

Species Rabbit

1,2-benzisothiazol-3(2H)-one

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 0.5

Allyl Amyl Glycolate

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 302.0

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 1,105.0

ATE dermal (mg/kg) 1,100.0

subtilisin

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 1,800.0

Species Rat

ATE oral (mg/kg) 1,800.0

Tetrahydro Linalool

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,001.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,001.0

Species Rabbit

Reproductive toxicity

Reproductive toxicity - fertility Fertility - NOAEL 887-1024 mg/kg body weight, Oral, Rat - NOAEL 338-361 mg/kg body weight, Oral, Rat F1 - NOAEL 278-345 mg/kg body weight, Oral, Rat F0

Reproductive toxicity - development Maternal toxicity: - NOAEL: 150 mg/kg body weight, Oral, Rabbit Developmental toxicity: - NOAEL: 500 mg/kg body weight, Oral, Rabbit

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Alpha-IsoMethyl Ionone

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,001.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,001.0

Species Rabbit

Reproductive toxicity

Reproductive toxicity - fertility Fertility - NOAEL 500 mg/kg body weight, Oral, Rat

Reproductive toxicity - development Developmental toxicity: - NOAEL: >30 mg/kg body weight, Oral, Rat Maternal toxicity: - NOAEL: >30 mg/kg body weight, Oral, Rat

Eucalyptol

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 2,480.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,001.0

Species Rabbit

Camphor

Acute toxicity - inhalation

ATE inhalation (dusts/mists
mg/l) 1.5

2,4-Dimethylcyclohex-3-ene-1-carbaldehyde

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 3,900.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,000.0

Species Rabbit

ATE dermal (mg/kg) 5,000.0

Diethyl phthalate

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,592.0

Species Rat

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Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

11,182.0

Species Rabbit

CITRAL

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

6,800.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

2,001.0

Species Rabbit

GERANIOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

3,600.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

5,001.0

Species Rabbit

Dodecanal

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

23,101.0

Species Rat

ATE oral (mg/kg) 23,101.0

potassium hydroxide

Acute toxicity - oral

ATE oral (mg/kg) 500.0

DAMASCONE (DELTA)

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

1,400.0

Species Mouse

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

5,001.0

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Species	Rabbit
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	NOAEL 30 mg/kg, Oral, Rat

SECTION 12: Ecological information

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
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12.1. Toxicity

Toxicity	Not considered toxic to fish.
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Ecological information on ingredients.

PENTASODIUM TRIPHOSPHATE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , : >1850 mg/l,
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC ₅₀ , : 160 mg/l, Desmodesmus subspicatus

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	LOEC, 96 hours: 5 mg/l, Fish
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Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >1-10 mg/l, Cyprinus carpio (Common carp)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >1-10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >10-100 mg/l, Desmodesmus subspicatus EC ₁₀ , 72 hours: 1.5 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC ₅₀ , 17 hours: 63 mg/l, PSEUDOMONAS PUTIDA

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 72 days: >0.1-1 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	EC ₂₀ , 32 days: 0.27 mg/l, Corbicula

Alcohols, C13-15, branched and linear, ethoxylated

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >1-10 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >1-10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >1-10 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	EC ₁₀ , : >1000 mg/l, Activated sludge

Chronic aquatic toxicity

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Chronic toxicity - aquatic invertebrates NOEC, 21 days: >0.1-1 mg/l, Daphnia magna

Carboxymethyl Cellulose

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >21000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Distyryl Biphenyl Derivative

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >10 - <100 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: >10 - <1000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms EC₅₀, 4 hours: >1000 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: >1 mg/l, Daphnia magna

d-LIMONENE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.7 mg/l, Pimephales promelas (Fat-head Minnow)
LC₅₀, 96 hours: 0.8 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.4 mg/l, Daphnia magna
EC₅₀, 48 hours: 69.6 mg/l, Daphnia

Acute toxicity - aquatic plants NOEC, 96 hours: 4 mg/l,
ErC₅₀, 72 hours: 8 mg/l, Desmodesmus subspicatus
NOEC, 72 hours: 2.62 mg/l, Desmodesmus subspicatus

Chronic aquatic toxicity

M factor (Chronic) 1

Chronic toxicity - aquatic invertebrates NOEC, 16 days: estimated 0.115 mg/l, Daphnia magna

α-hexylcinnamaldehyde

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 1.7 mg/l, Fish
LC₅₀, 96 hours: 3.1 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 3.86 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 6.87 mg/l, Pseudokirchneriella subcapitata

1,2-benzisothiazol-3(2H)-one

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Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 1.6 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 2.94 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.11 mg/l, Selenastrum capricornutum
Acute toxicity - microorganisms	EC ₂₀ , 3 hours: 3.3 mg/l, Activated sludge

Cedr-8-enyl Methyl Ketone (Acetyl Cedrene)

Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Chronic aquatic toxicity	
M factor (Chronic)	1

Allyl Amyl Glycolate

Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1

subtilisin

Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 8.2 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 0.09 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 0.290 mg/l, Pseudokirchneriella subcapitata EC ₁₀ , 72 hours: 0.041 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	EC ₁₀ , 32 days: 0.017 mg/l, Pimephales promelas (Fat-head Minnow)
Chronic toxicity - aquatic invertebrates	EC ₁₀ , 21 days: 0.145 mg/l, Daphnia magna

2,4-Dimethylcyclohex-3-ene-1-carbaldehyde

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 76 mg/l, Daphnia
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GERANIOL

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 14 mg/l, Fish
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Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 10.8 mg/l, Daphnia

Acute toxicity - aquatic plants EC₅₀, 72 hours: 13.1 mg/l, Algae

Oxacyclohexadecen-2-one

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

potassium hydroxide

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 44 (24h) mg/l, Fish

DAMASCONE (DELTA)

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.97 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 4.54 mg/l, Pseudokirchneriella subcapitata
NOEC, 72 hours: 0.883 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability

Persistence and degradability The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in The Detergents Regulations (as amended).

Ecological information on ingredients.

Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxide

Biodegradation OECD 301A - Degradation >70%: 28 days

Alcohols, C13-15, branched and linear, ethoxylated

Biodegradation OECD 301B - Degradation >60%:
OECD 303A - Degradation >=90%:

Chemical oxygen demand 2430 mg/g

Distyryl Biphenyl Derivative

Chemical oxygen demand 1507 mg/g

4-tertiary-butyl-cyclohexyl-acetate

Persistence and degradability Readily biodegradable.

Biodegradation - Degradation 75%:

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ETHANEDIOL

Biodegradation OECD 301A - Degradation 90-100%:

d-LIMONENE

Persistence and degradability Not readily biodegradable.

a-hexylcinnamaldehyde

Persistence and degradability Readily biodegradable.

Biodegradation - 97%: 28 days

1,2-benzisothiazol-3(2H)-one

Biodegradation OECD 302B, STP - 90%:

subtilisin

Persistence and degradability Readily biodegradable.

Tetrahydro Linalool

Persistence and degradability Readily biodegradable.

Biodegradation OECD 301F - Degradation 60%: 28 days

Alpha-IsoMethyl Ionone

Biodegradation - Degradation 42.51%: 28 days

GERANIOL

Persistence and degradability Readily biodegradable.

Biodegradation - 82%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

ETHANEDIOL

Partition coefficient log Kow: -1.36

d-LIMONENE

Partition coefficient log Kow: 2.78-5.03

a-hexylcinnamaldehyde

Partition coefficient log Pow: 5.3

1,2-benzisothiazol-3(2H)-one

Bioaccumulative potential BCF: 6.95, Fish

Partition coefficient log Kow: 0.7

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subtilisin

Bioaccumulative potential The product is not bioaccumulating.

Tetrahydro Linalool

Bioaccumulative potential BCF: 99.87,

Partition coefficient log Pow: 3.3

2,4-Dimethylcyclohex-3-ene-1-carbaldehyde

Partition coefficient log Pow: 2.34

GERANIOL

Partition coefficient log Pow: 2.6

DAMASCONE (DELTA)

Partition coefficient log Pow: 4.2

12.4. Mobility in soil

Mobility Soluble in water.

Ecological information on ingredients.

subtilisin

Mobility Not applicable.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

subtilisin

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current UK criteria.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

subtilisin

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of in accordance with Local Authority regulations as special waste according to The Control of Special Waste Regulations 1996.

EURAL Code

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

SAVON BIO

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

Drug Precursors Regulation
(273/2004)

Danish product registration
number

Danish national regulations

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC50: Lethal Concentration to 50 % of a test population.
LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Revision comments

Revision is due to addition of UFI number

SAVON BIO

Revision date	08/07/2021
Revision	5
Supersedes date	12/02/2019
SDS number	22021
Hazard statements in full	<p>H226 Flammable liquid and vapour.</p> <p>H290 May be corrosive to metals.</p> <p>H302 Harmful if swallowed.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H400 Very toxic to aquatic life.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.