

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

### 1.1. Product identifier

Product form	: Mixture
Trade name	: BACTIControl®
UFI	: W054-T9M2-K100-SRNM
Type of product	: For œnological use
Product group	: Trade product
Other means of identification	: E1105 - E330 - E331 (iii) - E508

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

#### 1.2.1. Relevant identified uses

Main use category	: Professional use
Industrial/Professional use spec	: For professional users only
Use of the substance/mixture	: Specific combination of lysozyme, enzymatic preparation of pectinase and $\beta$ -glucanases, and a natural polysaccharide exclusively of fungal origin: chitosan, to protect wines against microorganisms and especially lactic acid bacteria.
Use of the substance/mixture	: For œnological use

#### 1.2.2. Uses advised against

No additional information available

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

#### Supplier

LAFFORT FRANCE SAS  
P.O. Box CS 61611  
33072 BORDEAUX CEDEX  
FRANCE  
T +33 (0)5 56 86 53 04 - F +33 (0)5 56 86 30 50  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT CHILE  
PARCELA 233, LOTE 2, COLONIA KENNEDY, SECTOR HOSPITAL  
9540000 PAINE  
CHILE  
T +56 22 979 1590 - F +56 9 5201 7140  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT ITALIA  
S.P. PER CASTELNUOVO SCRIVIA S.N.C.  
15057 TORTONA AL  
T +39 0131 863 608 - F +39 0131 821 305  
[laffortitalia@laffort.com](mailto:laffortitalia@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT SOUTH AFRICA  
32 ZANDWYK PARK  
7646 PAARL  
SOUTH AFRICA  
T +27 21 882 8106  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT AUSTRALIA  
10 KALIMNA RD NURIOOTPA, 5355  
SOUTH AUSTRALIA  
AUSTRALIA  
T (08) 8360 2200  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Supplier

LAFFORT ESPAÑA S.A.  
TXIRRITA MALEO 12 APTDO 246  
20100 RENTERIA (Guipúzcoa)  
ESPAÑA  
T 0034943344068 - F 0034943344281  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT NEW ZEALAND  
4/B GREENWOODS CLOSE TITIRANGI  
P.O. Box P.O. BOX 60-249  
1000 AUCKLAND  
NEW ZEALAND  
T 64 (0) 21 322 290  
[info@laffort.com](mailto:info@laffort.com) - [www.laffort.com](http://www.laffort.com)

#### Distributor

LAFFORT USA  
1460 CADER LANE SUITE C  
CA 94954 PETALUMA  
USA  
T +1 (707) 775 4530  
[laffortusa@laffort.com](mailto:laffortusa@laffort.com) - [www.laffortusa.com](http://www.laffortusa.com)

**1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	
Canada	Ontario Poison Centre (OPC)	The Hospital for Sick Children 555 University Avenue ON M5G 1X8 Toronto	1-800-268-9017 (416) 813-5900	
Canada	BC Drug and Poison Information Centre (DPIC)	655 West 12th Avenue BC V5Z 4R4 Vancouver	1-800-567-8911 (604) 682-5050	
China	National Poison Control Center	Chinese Center for Disease Control and Prevention Nanwei road, No.29 100050 Beijing	+86 10 831 32 046	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	Information available 24/7 in Croatian and English
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen	Bispebjerg Bakke 23 Opgang 20 C 2400 København NV	+45 82 12 12 12	
Georgia	National Toxicology Information Advisory Center	Tbilisi State Medical University Department of Toxicology - 7 Asatiani St. 380 077 Tbilisi	+995 99 533320	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárad tér 2. 1437 Budapest, Pf. 839 1097 Budapest	+36 80 20 11 99	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096	+972 4 854 1900	
Japan	Japan Poison Information Center	Tsukuba Medical Center 1-1-1 Amakubo 305-0005 Tsukuba City, Ibaraki	+81-29-856-3566 +81-72-727-2499	
Jordan	National Drug & Poison Information Center of Jordan		0798506755 00962-6-5353444	
Kazakhstan	Republican Toxicology Center	Tole-bi 93 480083 Almaty	+7 3272 925 868	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
New Zealand	National Poisons Centre	Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin	0800 764 766 +56 2 2 247 3600	
Poland	National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	

**Safety Data Sheet**

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Country	Organisation/Company	Address	Emergency number	Comment
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Russia	Информационно-консультативный центр по токсикологии (RTIAC) Министерство здравоохранения Российской Федерации	3 Сухареvская Площадь Блок 7 129090 г. Москва	+7 495 628 1687 (только на русском)	
Serbia	Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40	
Slovenia	Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška 7 1000 Ljubljana	+386 522 52 83	
South Africa	Tygerberg Poison Information Centre	Division of Clinical Pharmacology Faculty of Medicine and Health Sciences Stellenbosch University - PO Box 241 8 000 Cape Town	0861 555 777 +56 2 2 247 3600	
Sweden	Giftinformationscentralen	Solna Strandväg 21 171 54 Solna	112 – begär Giftinformation	
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United States of America	American Association of Poison Control Centers	515 King St., Suite 510 VA 22314 Alexandria	1-800-222-1222 +56 2 2 247 3600	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Respiratory sensitisation, Category 1

H334

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

##### Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS08

Signal word (CLP)

: Danger

Contains

: Polygalacturonase enzyme; Beta-glucanase enzyme; Lysozyme (E1105)

Hazard statements (CLP)

: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (CLP)

: P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.

P284 - In case of inadequate ventilation wear respiratory protection.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER, doctor.

P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

Other hazards which do not result in classification

: May cause sensitization by inhalation and skin contact. mild eye irritation. mild skin irritation.

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

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lysozyme (E1105)	CAS-No.: 9066-59-5 EC-No.: 232-954-0 REACH-no: 01-2120086351-59	25 – 50	Resp. Sens. 1, H334
Polygalacturonase enzyme	CAS-No.: 9032-75-1 EC-No.: 232-885-6 EC Index-No.: IUB n°3.2.1.15	0,1 – 1	Resp. Sens. 1, H334
Beta-glucanase enzyme	CAS-No.: 9074-98-0 EC-No.: 232-979-7	0,1 – 1	Resp. Sens. 1, H334

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	: If symptoms persist call a doctor. Sensitisation : contact can cause allergic reactions in humans. Call a poison center or a doctor if you feel unwell.
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. If symptoms persist, call a physician. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If symptoms persist, call a physician. Wash skin with plenty of water.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Immediately give plenty of water. Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: More detailed information: See section 11.
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough, difficult breathing or other symptoms of poisoning may occur within some hours.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: mild eye irritation.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract.

#### 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	: If there is a fire close by, use suitable extinguishing agents. carbon dioxide (CO2), powder, alcohol-resistant foam, water spray. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use water jet.

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

Fire hazard	: In case of fire and/or explosion do not breathe fumes.
Hazardous decomposition products in case of fire	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not contaminate ground and surface water. Dispose in a safe manner in accordance with local/national regulations.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not handle until all safety precautions have been read and understood. Evacuate personnel to a safe area. Ensure adequate air ventilation.

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment.  
Emergency procedures : Ventilate spillage area. Do not touch or walk on the spilled product. Avoid contact with skin and eyes. Avoid breathing dust, mist or spray. Avoid breathing dust/fume/gas/mist/vapours/spray.  
Measures in case of dust release : Avoid dust formation.

##### 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. Do not flush into surface water or sewer system. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Dust deposited may be vacuum cleaned or the area hosed down with water. Mechanically recover the product. Contain leaking substance, pump over in suitable containers. Clean contaminated surfaces with an excess of water.  
Other information : Dispose of materials or solid residues at an authorized site. Do not allow to enter drains or water courses.

#### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Avoid dust formation. Ensure good ventilation of the work station. Local exhaust is recommended where dust may occur. Avoid contact with skin and eyes. Wear recommended personal protective equipment. Store tightly closed in a dry and cool place. Avoid breathing dust/fume/gas/mist/vapours/spray.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. If on skin, take off contaminated clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep only in the original container.  
Storage conditions : Keep in a well-ventilated room. Store in a dry, cool place. Keep out of direct sunlight. Keep container tightly closed to prevent moisture pick-up. Store in a well-ventilated place. Keep cool.  
Incompatible products : None to our knowledge.  
Incompatible materials : None to our knowledge.  
Heat and ignition sources : Keep away from ignition sources (including static discharges).

#### 7.3. Specific end use(s)

For œnological use.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid dust formation. Ensure the ventilation system is regularly maintained and tested.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment:

Refer to protective measures listed in Sections 7 and 8.

###### Personal protective equipment symbol(s):



##### 8.2.2.1. Eye and face protection

###### Eye protection:

Use eye protection according to EN 166, designed to protect against powders and dusts. Safety glasses with side shields. Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Dust	With side shields	EN 166

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

###### Hand protection:

In case of repeated or prolonged contact wear gloves. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Nitrile rubber gloves. Butyl rubber gloves. Latex gloves. ISO 374-1. Wash hands immediately after handling the product

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		EN ISO 374

# BACTIControl®

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Other skin protection

#### Materials for protective clothing:

Long sleeved protective clothing

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Extra personal protection: P3 filter respirator for toxic particles. [In case of inadequate ventilation] wear respiratory protection.

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Do not allow into drains or water courses. Avoid release to the environment. May be discharged to wastewater treatment installation.

#### Other information:

Do not eat, drink or smoke during work. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Off-white. brown.
Appearance	: Powder.
Odour	: Product (article) characteristics.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available



# BACTIControl®

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Heat. flames or sparks. Moisture.

### 10.5. Incompatible materials

None to our knowledge.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : See Section 5.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Polygalacturonase enzyme (9032-75-1)	
LD50 oral	> 2000 mg/kg bodyweight OECD TG 401, 420
Beta-glucanase enzyme (9074-98-0)	
LD50 oral rat	> 1000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 oral	> 2000 mg/kg bodyweight OECD TG 401, 420
Lysozyme (E1105) (9066-59-5)	
LD50 oral rat	> 5050 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5050 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2,51 mg/l/4h Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

Skin corrosion/irritation : May be slightly irritating to skin and eyes (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : May be slightly irritating to skin and eyes (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

# BACTIControl®

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)

<b>Lysozyme (E1105) (9066-59-5)</b>	
NOAEL (animal/male, F0/P)	> 200 mg/kg
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)

<b>Lysozyme (E1105) (9066-59-5)</b>	
NOAEL (oral, rat, 90 days)	> 500 mg/kg bodyweight/day
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

<b>BACTIControl®</b>	
Viscosity, kinematic	Not applicable

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

Potential adverse human health effects and symptoms : Sensitisation : contact can cause allergic reactions in humans

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

<b>Polygalacturonase enzyme (9032-75-1)</b>	
LC50 - Fish [1]	58,3 – 326,7 mg/l
EC50 - Crustacea [1]	31,7 – 457 mg/l
ErC50 algae	> 5,2 mg/l 72h

<b>Beta-glucanase enzyme (9074-98-0)</b>	
LC50 - Fish [1]	> 120 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 150 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	> 5,2 mg/l 72h

<b>Lysozyme (E1105) (9066-59-5)</b>	
LC50 - Fish [1]	> 1 g/l Test organisms (species): Cyprinus carpio
LC50 - Fish [2]	> 1 g/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 1 mg/l Daphnia magna

# BACTIControl®

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Lysozyme (E1105) (9066-59-5)	
EC50 72h - Algae [1]	97 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	> 97 mg/l 72h - Desmodesmus subspicatus

### 12.2. Persistence and degradability

Polygalacturonase enzyme (9032-75-1)	
Persistence and degradability	Biodegradable.
Beta-glucanase enzyme (9074-98-0)	
Persistence and degradability	Biodegradable.
Lysozyme (E1105) (9066-59-5)	
Persistence and degradability	Readily biodegradable.
Additional information	The substance is an enzyme (biological material); therefore it can be considered ready biodegradable. No specific information exists on the abiotic degradation of the substance in the environment via hydrolysis or photolysis. However, considering that enzymes generally have a great biodegradation potential, possible abiotic degradation mechanisms in the environmental is expected to be of lower significance compared to biodegradation process.

### 12.3. Bioaccumulative potential

Polygalacturonase enzyme (9032-75-1)	
Partition coefficient n-octanol/water (Log Pow)	< 0
Bioaccumulative potential	There is no bioaccumulation.
Beta-glucanase enzyme (9074-98-0)	
Partition coefficient n-octanol/water (Log Pow)	< 0
Bioaccumulative potential	There is no bioaccumulation.
Lysozyme (E1105) (9066-59-5)	
Partition coefficient n-octanol/water (Log Pow)	≈ -2 25°C
Bioaccumulative potential	There is no bioaccumulation.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects : Do not allow to enter drains or water courses

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: No known adverse effects on the functioning of water treatment plants under normal use conditions as recommended.
Product/Packaging disposal recommendations	: Empty remaining contents. Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

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

#### 14.1. UN number or ID number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR)	: Not regulated
----------------------------------	-----------------

##### IMDG

Transport hazard class(es) (IMDG)	: Not regulated
-----------------------------------	-----------------

##### IATA

Transport hazard class(es) (IATA)	: Not regulated
-----------------------------------	-----------------

##### ADN

Transport hazard class(es) (ADN)	: Not regulated
----------------------------------	-----------------

##### RID

Transport hazard class(es) (RID)	: Not regulated
----------------------------------	-----------------

#### 14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

#### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 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

#### 15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : WGK 1, Slightly 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 : Polygalacturonase enzyme, Beta-glucanase enzyme, Lysozyme (E1105) are listed

SZW-lijst van mutagene stoffen : Polygalacturonase enzyme, Beta-glucanase enzyme, Lysozyme (E1105) 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

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
1.1	UFI	Added	

Indication of changes			
Section	Changed item	Change	Comments
4.2	Symptoms/effects after inhalation	Modified	
5.1	Suitable extinguishing media	Modified	
5.2	Fire hazard	Added	
5.2	Hazardous decomposition products in case of fire	Modified	
5.3	Firefighting instructions	Added	
6.1	General measures	Added	
6.1	Emergency procedures	Modified	
6.2	Environmental precautions	Modified	
6.3	Methods for cleaning up	Modified	
6.3	Other information	Modified	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Modified	
7.2	Heat and ignition sources	Added	
7.2	Incompatible products	Added	
7.2	Incompatible materials	Added	
8.2	Appropriate engineering controls	Modified	
8.2	Eye protection	Modified	
8.2	Hand protection	Modified	
8.2	Respiratory protection	Modified	
10.3	Possibility of hazardous reactions	Added	
10.5	Incompatible materials	Added	
10.6	Hazardous decomposition products	Modified	
11.1	Reason for no classification	Added	
11.1	Serious eye damage/irritation - comment	Added	
11.1	Skin corrosion/irritation - comment	Added	
13.1	Regional legislation (waste)	Added	
15.1	WGK - SDS Preview	Modified	

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

# BACTIControl®

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
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
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 disrupting properties

Full text of H- and EUH-statements:	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Resp. Sens. 1	Respiratory sensitisation, Category 1

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.