

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 19.01.2018 Revision date: 25.07.2023 Supersedes version of: 27.10.2021 Version: 2.4

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

1.1. Product identifier

Product form : Mixture

Trade name : EXTRALYSE®

UFI : 5M8Y-G8R6-K10H-YW9V

Type of product : For ænological use

Product group : Trade product

Other means of identification : 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 : Preparation of beta-glucanases and pectinases purified in CE for the improvement of wine

filterability and ageing on lees.

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

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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	

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Organisation/Company	Address	Emergency number	Comment
National Poisons Centre	Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin	0800 764 766 +56 2 2 247 3600	
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	
Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации	3 Сухаревская Площадь Блок 7 129090 г. Москва	+7 495 628 1687 (только на русском)	
Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40	
Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška 7 1000 Ljubljana	+386 522 52 83	
Tygerberg Poison Information Centre	Division of Clinical Pharmacology Faculty of Medicine and Heath Sciences Stellenbosch University - PO Box 241 8 000 Cape Town	0861 555 777 +56 2 2 247 3600	
Giftinformationscentralen	Solna Strandväg 21 171 54 Solna	112 – begär Giftinformation	
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.
National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
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
	National Poisons Centre National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL Tygerberg Poison Information Centre Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı National Poisons Information Service (Belfast Centre) Royal Victoria Hospital National Poisons Information Service (Birmingham Centre) City Hospital National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust National Poisons Information Service (Newcastle Centre)	National Poisons Centre National Poisons Information Centre The Nofer Institute of Occupational Medicine, University of Otago PO Box 913 9054 Dunedin National Poisons Information Centre The Nofer Institute of Occupational Medicine (Lódź) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Crnotravska 17 11000 Beograd Center za klinično toksikologijo in Zaloška 7 1000 Ljubljana Center za klinično toksikologijo in Genter aklinika, UKCL Tygerberg Poison Information Centre Division of Clinical Pharmacology Faculty of Medicine and Heath Sciences Stellenbosch University - PO Box 241 8 000 Cape Town Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara National Poisons Information Service (Belfast Centre) Royal Victoria Hospital National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Cardiff Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Fram Road Set 14 5ER National Poisons Information Service (Newcastle University Hospital Place Newcastle-upon-Tyne	National Poisons Centre Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin National Poisons Information Centre The Nofer Institute of Occupational Medicine (Iddit) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Uнформационно-консультативный центр по токсикология (RTIAC) Министерство адравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Nacionalni centar za kontrolu trovanja - VMA Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL Tygerberg Poison Information Centre Division of Clinical Pharmacology Stellenbosch University - PO Box 241 8 000 Cape Town Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hifzishha Merkezi Başkanlığı Ocisyal Victoria Hospital National Poisons Information Service (Belfast Centre) National Poisons Information Service (Cardiff Emilia Pharmacology Brita Başkanlığı Ocisyal Victoria Hospital National Poisons Information Service University Hospital Llandough National Poisons Information Service University Hospital Llandough National Poisons Information Service Utitle France Crescent EHI6 4SA National Poisons Information Service Utitle France Crescent EHI6 4SA Centre University Hospital Llandough National Poisons Information Service Utitle France Crescent EHI6 4SA Centre) University Hospital Llandough National Poisons Information Service Utitle France Crescent EHI6 4SA Centre) Cyry's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' SEL4 5ER Noologial Information Forvice (Rewcastle Centre) Newastle-upon-Tyne Da44 892 0111 Centre Crescent Centre Conscent Centre Conscen

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Country	organisation/Company	Address	Emergency number	Comment
		0,	1-800-222-1222 +56 2 2 247 3600	

H334

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

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

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.

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. P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P284 - In case of inadequate ventilation wear respiratory protection.

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]
Polygalacturonase enzyme	CAS-No.: 9032-75-1 EC-No.: 232-885-6	1-5	Resp. Sens. 1, H334
	EC Index-No.: IUB n°3.2.1.15		

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Name	Product identifier		Classification according to Regulation (EC) No. 1272/2008 [CLP]
Beta-glucanase enzyme	CAS-No.: 9074-98-0 EC-No.: 232-979-7	1-5	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. 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.

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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 tightly closed in a dry and cool place. Keep out of direct sunlight. Keep container tightly closed to prevent moisture pick-up. Store in a well-ventilated place. Keep cool.

Heat and ignition sources

: Keep away from ignition sources (including static discharges).

7.3. Specific end use(s)

For œnological use.

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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

EXTRALYSE®		
DNEL/DMEL (Workers)		
Long-term - local effects, inhalation	0,00006 mg/m³ Polygalacturonase enzyme + Beta-glucanase enzyme	

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.

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:

Safety glasses with side shields. Safety glasses

Eye protection				
Туре	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

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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** : Granulate. Odour characteristic. Odour threshold Not available Not available Melting point Freezing point Not applicable : Not available **Boiling point** Flammability : Non flammable. **Explosive limits** : Not applicable Lower explosion limit : Not applicable Upper explosion limit : Not applicable : Not applicable Flash point : Not applicable Auto-ignition temperature Decomposition temperature Not available Not available pH solution Not available Viscosity, kinematic : Not applicable Solubility : Soluble in water. Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available : Not available Density

: ≈ 0,65 Relative density Relative vapour density at 20°C : Not applicable Particle size Not available Particle size distribution Not available Not available Particle shape Particle aspect ratio Not available Not available Particle aggregation state : Not available Particle agglomeration state Particle specific surface area : Not available Particle dustiness : Not available

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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. 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)

: Not classified (Based on available data, the classification criteria are not met)				
Polygalacturonase enzyme (9032-75-1)				
> 2000 mg/kg bodyweight OECD TG 401, 420				
> 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)				
> 2000 mg/kg bodyweight OECD TG 401, 420				
: Not irritating to skin (Based on available data, the classification criteria are not met)				
: Not irritating to eyes (Based on available data, the classification criteria are not met)				
: May cause allergy or asthma symptoms or breathing difficulties if inhaled.				
: Not classified (Based on available data, the classification criteria are not met)				
: Not classified (Based on available data, the classification criteria are not met)				
: Not classified (Based on available data, the classification criteria are not met)				
: Not classified (Based on available data, the classification criteria are not met)				
: Not classified (Based on available data, the classification criteria are not met)				
: Not classified (Based on available data, the classification criteria are not met)				

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EXTRALYSE®	
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)

Polygalacturonase enzyme (9022-75

Polygalacturonase enzyme (9032-75-1)		
LC50 - Fish [1]	58,3 – 326,7 mg/l	
EC50 - Crustacea [1]	31,7 – 457 mg/l	
ErC50 algae	> 5,2 mg/l 72h	
Beta-glucanase enzyme (9074-98-0)		
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	

12.2. Persistence and degradability

Polygalacturonase enzyme (9032-75-1)		
Persistence and degradability Biodegradable.		
Beta-glucanase enzyme (9074-98-0)		
Persistence and degradability Biodegradable.		

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.	

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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

Waste treatment methods

 $: \ \, \text{Dispose of contents/container in accordance with licensed collector's sorting instructions}.$

Sewage disposal recommendations

: No known adverse effects on the functioning of water treatment plants under normal use $% \left(1\right) =\left(1\right) \left(1\right)$

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

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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 are listed SZW-lijst van mutagene stoffen : Polygalacturonase enzyme,Beta-glucanase enzyme 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

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Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product $% \left(1\right) =\left(1\right) \left(1\right$

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	
1.3	Manufacturer/Supplier	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		
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		

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Abbreviations and acronyms:		
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.