

ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#1/18

In conformity to Regulation (EU) 2020/878

SECTION 1. Identification of the substance/mixture and of the company/enterprise

1.1. Product identifier

Product name: ENDOZYM Rouge Liquid Product code: refer to sales department

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

Enzyme preparations
Sectors of use:
Manufacture of food products[SU4]
Product category:
Technological adjuvant

Not recommended uses

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

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Produced by

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ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#2/18

In conformity to Regulation (EU) 2020/878

1.4. Emergency telephone number

AEB SpA

Centralino/Switchboard: +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT +1; Lingua/Language: Italiano, English)

AEB USA

Switchboard: +1 2096258139 (GMT -8; Language: English)

AEB AFRICA (PTY) LTD

Switchboard: +27 215512700 (GMT +1; Language: English, Afrikaans)

AEB OCEANIA PTY LTD

Switchboard: +61 1300 704 971 (GMT +9; Language: English)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS08

Hazard Class and Category Code(s):

Resp. Sens. 1

Hazard statement Code(s):

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

The product, if inhaled, can cause sensitization.

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS08 - Danger

Hazard statement Code(s):

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

Supplemental Hazard statement Code(s):

not applicable

Precautionary statements:





ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#3/18

In conformity to Regulation (EU) 2020/878

Prevention

P261 - Avoid breathing vapours/spray.

P284 - In case of inadequate ventilation wear respiratory protection.

Response

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

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

Contains: polygalacturonase, betaglucanase (\$1-3, \$1-6), pectin lyases

Ingredients: glycerol, potassium chloride, polygalacturonase, ammonium sulphate, betaglucase (\$1-3, \$1-6), pectin lyases, potassium sorbate, water to taste 100.

For food, oenological use. Not intended for the final consumer. Complies with current regulations on specific matters. Exclusively for industrial use

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

The use of this chemical agent implies the obligation of the "risk assessment" by the employer according to the provisions of Legislative Decree April 9, 2008 no. 81 and subsequent amendments. If the results of the risk assessment demonstrate that, in relation to the type, quantity, methods and frequency of exposure, there is only a low risk for the safety and irrelevant for the health of the workers and that the measures referred to in paragraph 1 of Legislative Decree April 9, 2008 no. 81 are sufficient to reduce the risk, the provisions of articles 225, 226, 229, 230 of the same Legislative Decree do not apply

Do not ingest. Keep out of reach of children.

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Glycerol substance for which there are Community workplace exposure limits	>= 25 < 50%			56-81-5	200-289-5	
Potassium chloride substance for which there are Community workplace exposure limits	>= 3 < 5%			7447-40-7	231-211-8	



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#4/18

In conformity to Regulation (EU) 2020/878

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Polygalacturonase	>= 3 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; STOT SE 3, H335	3.2.1.15	9032-75-1	232-885-6	
Beta-glucanase (β1-3, β1-6)	>= 0,1 < 1%	Resp. Sens. 1, H334	3.2.1.6	62213-14-3	263-462-4	
Pectin lyases	>= 0,1 < 1%	Resp. Sens. 1, H334	4.2.2.10	9033-35-6	232-894-5	

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation: ventilate the environment. Immediately remove the patient from the contaminated environment and keep him at rest in a well-ventilated area. In case of malaise consult a doctor.

Direct contact with the skin (of the pure product): wash thoroughly with soap and water.

Direct contact with the eyes (of the pure product): rinse immediately with running water for 10-15 minutes, keeping the eyelid open. Remove contact lenses if they are worn and can be easily removed.

Ingestion: drink water in sips. Consult a doctor if you experience symptoms

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

No data available.

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

If you experience respiratory symptoms, call a POISON CENTER or doctor. Symptomatic treatment.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suggested extinguishing media:

Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#5/18

In conformity to Regulation (EU) 2020/878

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.

Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear gloves and protective clothing

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Privide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS) Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert materia or sucked it. Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapours. Handle the product after consulting all other sections of this safety data sheet. Do not eat or drink while working. See also the next paragraph 8.



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#6/18

In conformity to Regulation (EU) 2020/878

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers. Keep containers upright and safe by avoiding the possibility of falls or collisions. Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Manufacture of food products:

Store in the original sealed packaging, protected from light, in a cool, dry, odor-free place and at a temperature < 20°C. Do not freeze. Batch number (BN) and best before (EXP): see barcode

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

Glycerol:

Limit value - Eight hours

Australia 10 (1) mg/m3

Belgium 10 mg/m3

Canada - Ontario 10 mg/m3

Canada - Quebec 10 mg/m3

Finland 20 mg/m3

France 10 mg/m3

Germany (AGS) 200 (1) mg/m3

Germany (DFG) 200 (1) mg/m3

Ireland 10 mg/m3

New Zealand 10 (1) mg/m3

Poland 10 mg/m3

Singapore 10 mg/m3

South Africa Mining 10 ppm

South Korea 10 mg/m3

Spain 10 mg/m3

Switzerland 50 inhalable aerosols mg/m3

USA - OSHA 15 (1) mg/m3

5 (2) mg/m3

United Kingdom 10 mg/m3

Limit value - Short-term

Germany (AGS) 400 (1)(2) mg/m3

Germany (DFG) 400 (1)(2) mg/m3

Switzerland 100 inhalable aerosols mg/m3

Remarks

Australia (1) This value refers to inhalable dust containing no asbestos and < 1% crystalline silica.

Germany (AGS) (1) Inhalable fraction (2) Average value 15 minutes

Germany (DFG) (1) Inhalable fraction (2) Average value 15 minutes

New Zealand (1) The value for inhalable dusts containing no asbestos and less than 1% free silica.

USA - OSHA (1) Inhalable fraction (2) Breathable fraction



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#7/18

In conformity to Regulation (EU) 2020/878

Potassium chloride: Limit value - Eight hours Latvia: 5 mg/m³

- Substance: Glycerol

DNEL

Systemic effects Long term Workers inhalation = 56 (mg/m3)

PNEC

Sweet water = 0.885 (mg/I)

sediment Sweet water = 3,3 (mg/kg/sediment)

Sea water = 0.088 (mg/I)

sediment Sea water = 0,33 (mg/kg/sediment)

ground = 0,141 (mg/kg ground)

- Substance: Potassium chloride

DNEL

Systemic effects Long term Workers inhalation = 1064 (mg/m3)

Systemic effects Long term Workers dermal = 303 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 273 (mg/m3)

Systemic effects Long term Consumers dermal = 182 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 91 (mg/kg bw/day)

Systemic effects Short term Workers inhalation = 5320 (mg/m3)

Systemic effects Short term Workers dermal = 910 (mg/kg bw/day)

Systemic effects Short term Consumers inhalation = 1365 (mg/m3)

Systemic effects Short term Consumers dermal = 910 (mg/kg bw/day)

Systemic effects Short term Consumers oral = 455 (mg/kg bw/day)

PNEC

Sweet water = 0,1 (mg/l)

Sea water = 0.1 (mg/I)

STP = 10 (mg/l)

- Substance: Polygalacturonase

PNEC

Sweet water = 0.0237 (mg/l)

Sea water = 0.0237 (mg/l)

STP = 65 (mg/l)

ground = 0.00376 (mg/kg ground)

- Substance: Beta-glucanase (β1-3,

β1-6) PNEC

Sweet water = 0.0052 (mg/I)

Sea water = $0.00052 \, (mg/l)$

STP = 65 (mg/l)

ground = 0.001 (mg/kg ground)

- Substance: Pectin lyases

PNEC

Sweet water = 0.052 (mg/I)

Sea water = 0,00052 (mg/l)

STP = 65 (mg/l)

ground = 0.001 (mg/kg ground)



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#8/18

In conformity to Regulation (EU) 2020/878

8.2. Exposure controls



Appropriate engineering controls:

Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations.

- (b) Skin protection
 - (i) Hand protection

Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations.

(ii) Other

Wear normal work clothing.

(c) Respiratory protection

Use adequate protective respiratory equipment (EN 14387:2008)

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Use according to good working practices and avoid to disperse the product into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Viscous liquid	
Colour	brune to brown	
Odour	not determined as considered not relevant for the characterization of the product	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	
Flammability	not determined as considered not relevant for the characterization of the product	



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

#9/18

In conformity to Regulation (EU) 2020/878

Physical and chemical properties	Value	Determination method
Lower and upper explosion limit	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
рН	4.5 - 6.5	
Kinematic viscosity	not determined as considered not relevant for the characterization of the product	
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient n-octanol/water (log value)	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	0.950 - 1.300	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

9.2. Other information

9.2.1 Information with regard to physical hazard classes

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

SECTION 10. Stability and reactivity

10.1. Reactivity

Related to contained substances:

Glycerol:

Reacts with: Strong acids. Strong foundations

Potassium chloride:

The product is not reactive under normal conditions of use, storage and transport.

Polygalacturonase:



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

10 / 18

in conformity to Regulation (EU) 2020/878
Non pertinent.
Beta-glucanase (β1-3, β1-6): Not relevant.
Pectin lyases: The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
No hazardous reaction when handled and stored according to provisions.
10.3. Possibility of hazardous reactions
There are no hazardous reactions
10.4. Conditions to avoid
Related to contained substances: Glycerol: Humidity
Potassium chloride: None under recommended storage and handling conditions.
Polygalacturonase: None.
Beta-glucanase (β 1-3, β 1-6): Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Pectin lyases: None under recommended storage and handling conditions.

10.5. Incompatible materials

No one in particular

ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

11 / 18

In conformity to Regulation (EU) 2020/878

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

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

(a) acute toxicity:

Glycerol: Ingestion - LD50 rat (mg / kg / 24h bw): not available Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): not available

Inhalation - LD50 rat (mg / I / 4h): not available

Potassium chloride: Ingestion - DL50 rat (mg / kg / 24h pc): 3020 Contact avec la peau - CL50 rat / lapin (mg / kg / 24h pc): n.d.

Inhalation - DL50 rat (mg / I / 4h): n.d.

Polygalacturonase: Ingestion - LD50 rat (mg / kg / 24h bw): nd

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): nd

Inhalation - LD50 rat (mg / I / 4h): nd

Beta-glucanase (β1-3, β1-6): Ingestion - LD50 rat (mg/kg/24h bw): > 2000

Skin contact - LC50 rabbit (mg/kg/24h bw): nd

Inhalation - LC50 rat (mg/l/4h): 2.42

Pectin lyases: Ingestion - LD50 rat (mg / kg / 24h bw): not available Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): not available

Inhalation - LD50 rat (mg / I / 4h): not available

(b) skincorrosion/irritation: Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Unavailable

Pectin lyases: Not corrosive Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Irritating

Beta-glucanase (β1-3, β1-6): Not classified

Pectin lyases: Not irritating

(c) serious eye damage/irritation: Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Unavailable

Pectin lyases: Not corrosive Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Irritating

Beta-glucanase (β1-3, β1-6): Unavailable

Pectin lyases: Not irritating

(d) respiratoryorskinsensitisation: The product, if inhaled, can cause sensitization.

Glycerol: Not classified

Potassium chloride: Unclassified

Polygalacturonase: May cause sensitization by inhalation

Beta-glucanase (β1-3, β1-6): Once sensitized, a severe allergic reaction can occur upon subsequent exposure to very

low levels.

pectin lyases: Sensitizer: May cause sensitization by inhalation.

(e) germ cell mutagenicity:

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SAFETY DATA SHEET

ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

12 / 18

In conformity to Regulation (EU) 2020/878

Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Not classified

pectin lyases: Unavailable

(f) carcinogenicity: Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Not classified

Pectin lyases: Unavailable

(g) eproductivetoxicity:

Glycerol: Not classified - Does not affect fertility. Non-toxic for development.

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Unavailable

Pectin lyases: Unavailable

(h) specific target organ toxicity (STOT) single exposure:

Glycerol: Not classified Ingestion may cause nausea, vomiting and avoidance.

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Unavailable

Pectin lyases: Unavailable

(i) specific target organ toxicity (STOT) repeated exposure

Glycerol: Not classified

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): Not classified

Pectin lyases: Once sensitized, a severe allergic reaction can occur upon subsequent exposure to very low levels.

(j) aspiration hazard:

Glycerol: Inhalation: May cause irritation to the respiratory tract and other mucous membranes.

Potassium chloride: Unclassified Polygalacturonase: Unavailable

Beta-glucanase (β1-3, β1-6): May cause sensitization by inhalation

Pectin lyases: Unavailable

11.2. Information on other hazards

No data available.

11.2.1. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

13 / 18

In conformity to Regulation (EU) 2020/878

Glycerol:

Acute aquatic toxicity: Not classified Chronic aquatic toxicity: Not classified

LC50-96 h - fish 54000 mg / I Oncorhynchus mykiss

EC50-48 h - Daphnia 1955 mg / I

EC50-72 h - algae 3200 mg / I Entosiphon sulcatum

Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1

Potassium chloride:

Acute toxicity - fish LC50 (mg / I / 96h): 880 (Pimephales promelas; (OECD method 203))
Acute toxicity - crustaceans EC50 (mg / I / 48h): 440 (Daphniamagna; (OECD method 202))
Acute toxicity algae EC50 (mg / I / 72h):> 100 (Desmodesmus subspicatus; (method OECD 201))
Chronic toxicity - fish NOEC (mg / I): nd Chronic toxicity - crustaceans NOEC (mg / I): nd
Chronic toxicity algae NOEC (mg / I / 72h):> 100 (Desmodesmus subspicatus; (method OECD 201))
Acute toxicity M-factor = 1
Chronic toxicity M-factor = 1

Polygalacturonase:

Acute toxicity - fish LC50 (mg / I / 96h): n.a.

Acute toxicity - crustaceans EC50 (mg / I / 48h): n.a.

Acute toxicity algae ErC50 (mg / I / 72-96h): n.a

Chronic toxicity - fish NOEC (mg / I): n.a

Chronic toxicity - crustaceans NOEC (mg / I): n.a

Chronic toxicity algae NOEC (mg / I): n.a

Acute toxicity M-factor = 1

Chronic toxicity M-factor = 1

Beta-glucanase (β 1-3, β 1-6):

Acute toxicity - fish LC50 (mg / I / 96h): nd Acute toxicity - crustaceans EC50 (mg / I / 48h): nd Acute toxicity to algae ErC50 (mg / I / 72-96h): nd Chronic toxicity - fish NOEC (mg / I): nd Chronic toxicity - crustaceans NOEC (mg / I): nd Chronic toxicity to algae NOEC (mg / I): nd Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1

Pectin Ivases:

Acute toxicity - fish LC50 (mg / I / 96h): not available Acute toxicity - crustaceans EC50 (mg/l/48h) [1]: 2000 mg/l Acute toxicity - crustaceans EC50 (mg/l/48h) [2]: 212 mg/l Acute toxicity algae ErC50 (mg / I / 72-96h): not available Chronic toxicity - fish NOEC (mg / I): not available Chronic toxicity - shellfish NOEC (mg / I): not available Chronic toxicity algae NOEC (mg / I): not available Acute toxicity M-factor = 1

Use according to good working practices and avoid to disperse the product into the environment.



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

14 / 18

In conformity to Regulation (EU) 2020/878

12.2. Persistence and degradability

Related to contained substances:
Glycerol:
Persistence and degradability Readily biodegradable.
COD value 1.16 g O2 / g substance
ThOD (gO2 / g) 1.217 g O2 / g substance
BOD (% of ThOD) 71% DTO

Potassium chloride:

It does not apply to inorganic substances.

Polygalacturonase:

Unavailable

Beta-glucanase (β 1-3, β 1-6): Easily biodegradable

Pectin lyases:

Readiily biodegradable

12.3. Bioaccumulative potential

Related to contained substances:

Glycerol:

Log P octanol / water at 20 ° C -1.76 - 2.6 Kow log -1.76 Bioaccumulative potential Not expected to bioaccumulate.

Potassium chloride:

It does not apply to inorganic substances.

Polygalacturonase:

Unavailable

Beta-glucanase (β 1-3, β 1-6): No bioaccumulation potential

Pectin lyases: not available

12.4. Mobility in soil

Related to contained substances:

Glycerol

ground Product that penetrates easily into the ground.

Potassium chloride:

It must have been very mobile in the ground.



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

15 / 18

In conformity to Regulation (EU) 2020/878

Polygalacturo Unavailable	nase:
Beta-glucanas Unavailable	se (β1-3, β1-6)
Pectin lyases:	

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

No adverse effects

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

SECTION 14. Transport information

14.1. UN number or ID number

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

16 / 18

In conformity to Regulation (EU) 2020/878

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

Restrictions relating to the product or the substances contained (Annex XVII EC Reg. 1907/2006): not applicable Substances in Candidate list (art. 59 EC Reg. 1907/2006): the product does not contain SVHC in percentage = a 0.1 %.

Regulation (EU) 1169/2011: see point 2.2 Regulation (EU) 1308/2013; see point 2.2

Regulation (EC) 1333/2008; see point 2.2

Regulation (EC) 1332/2008; see point 2.2

REGULATION (EU) No 1357/2014 - waste: HP13 - Sensitising

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Description of hazard statements set out in paragraph 3

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 = May cause respiratory irritation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:



ENDOZYM Rouge Liquid

Issued on 05/30/2024 - Rel. # 4 on 05/30/2024

17 / 18

In conformity to Regulation (EU) 2020/878

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled Classification procedure: Calculation method

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seg.

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable n.d.: not available

ADR: Accord europèen relative au transport International des merchandises dangereuses par route (European

Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat
BFC: BioconCentration Factor
BOD: Biochemical Oxigen Demand
CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified

Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50 COD: Chemical Oxygen Demand DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Environment Release Classes

EU/UE: European Union

IATA: International Air Transport Association ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient NOEC: No Observed Effect Concentration OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernent le transport International ferroviaire des merchandises dangereuses (Regulations

concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity STOT (RE): Repeated Exposure STOT (SE): Single Exposure

STP: Sewage Treatment Plants SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

References and Sources:

ECHA Registered Substances:

https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

- SDS raw material supplier
- GESTIS International Limit Value: http://limitvalue.ifa.dguv.de



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18 / 18

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*** this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: Global update and label