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

1.1. Product identifier

Product name : ENDOZYM THIOL ROUGE
Product code: refer to sales department

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

Enzyme
Sectors of use:
Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]
Product category:
Process aid for enological use
Not recommended uses
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

AEB OCEANIA PTY LTD
113 Hanwood Avenue
Hanwood
NSW 2680 (Australia)
Tel: +61 1300 704 971
Email: aeboceania@aeb-group.com - Internet: www.aeb-group.com

Produced by
AEB FRANCE Sarl - 10, rue du Stade - 68240 SIGOLSHEIM, France

1.4. Emergency telephone number

Centralino/Switchboard/Telefonzentrale: +61 1300 704 971

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.

2.2. 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:
Prevention
P261 - Avoid breathing dust.
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 doctor

Contains:
PECTINE LYASE (PL), POLYGALACTURONASE (PG), AMMONIUM SULPHITE, POTASSIUM CHLORIDE
Only for professional use
For limited use in foodstuffs: enological use

2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII
The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with the provisions of Dlgs n. 81. April 9, 2008. Workers exposed to this chemical agent should not be subject to health surveillance if the results of the risk assessment show that, depending on the type and quantity of dangerous chemical agent and method and frequency of exposure to the agent, there is only a "moderate Risk" for the health and safety of workers and that the measures laid down in the Decree are sufficient to reduce the risk.

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
POTASSIUM CHLORIDE	> 30 <= 50%			7447-40-7	231-211-8	01-2119539416-36-XXXX
PECTINE LYASE (PL)	> 20 <= 30%	Resp. Sens. 1, H334		9033-35-6	232-894-5	
POLYGALACTURONASE (PG)	> 10 <= 20%	Resp. Sens. 1, H334		9032-75-1	232-885-6	
AMMONIUM SULFATE	> 1 <= 5%			7783-20-2	231-984-1	01-2119455044-46-XXXX
CELLULASE	> 0,1 <= 1%	Resp. Sens. 1, H334		9012-54-8	232-734-4	01-2119949289-21-XXXX
PROTEASE	> 0,1 <= 1%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; STOT SE 3, H335		9001-92-7	232-642-4	

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:
Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.
Direct contact with skin (of the pure product).:
Wash thoroughly with soap and running water.
Direct contact with eyes (of the pure product).:
Wash immediately and thorougly with running water for at least 10 minutes.
Ingestion:
Not hazardous. It’s possible to give activated charcoal in water or medicinal mineral vaseline oil.

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 experiencing respiratory symptoms: Call a POISON CENTER or doctor

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.

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 and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
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
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.
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 vapors
In residential areas do not use on large surfaces.
At work do not eat or drink.

See also paragraph 8 below.

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 T<20°C, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:
Handle with extreme caution.
Store in a well ventilated place away from heat sources.
Manufacture of food products:
Handle with care.
Store in a clean, dry, ventilated area away from heat and direct sunlight.
Keep container tightly closed.
Public domain (administration, education, entertainment, services, craftsmen):
Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

==========
Related to contained substances:
AMMONIUM SULFATE:
Technical measures: No requirement: However, it is recommended that adequate ventilation.
Hygiene measures: not eating, drinking, no smoking during use. Wash your hands after touching the compounds and before eating, smoking and using the bathroom at the end of the day.
Personal protective equipment-production scale

Respiratory system: wear a mask to protect from dust P2.
Skin and body: work Clothing.
Eyes: goggles with side shields.
Hands: Use appropriate gloves. The recommended material (s): 4-8 hours (cracking): butyl rubber. PVC.

For high exposure levels are applicable directions on personal protection. Choose a personal protection based on the risk assessment of exposure.

8.2. Exposure controls

Appropriate engineering controls:
Industrial Manufacturing:
No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)
Manufacture of food products:
No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)
Public domain (administration, education, entertainment, services, craftsmen):
No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)
Individual protection measures:
(a) Eye / face protection
When handling the pure product use safety glasses (spectacles cage) (EN 166).
(b) Skin protection
(i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)
(ii) Other
When handling the pure product wear full protective skin clothing.
(c) Respiratory protection
Use adequate protective respiratory equipment (EN 141)
(d) Thermal hazards
No hazard to report
Environmental exposure controls:
==========

Related to contained substances:
CELLULASE:
Eye/face protection
Visor and goggles. Use eye protection tested and approved in accordance with the requirements of appropriate technical standards as NIOSH (US) or EN 166 (EU)
Skin protection
Manipulate with gloves. The gloves should be checked before being used. Use a suitable technique for the removal of gloves (without touching the outside of the glove) to avoid skin contact with this product dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands.
Selected protective gloves shall comply with the requirements of EU Directive 89/686/EEC and EN 374 standards arising therefrom.
Full contact
Material: nitrile rubber
minimum thickness: 0.11 mm
Penetration time: 480 min >
Material tested: Dermatril (Aldrich Z677272, size M)
Splash protection
Material: nitrile rubber
minimum thickness: 0.11 mm
Penetration time: 30 min >
Material tested: Dermatril (Aldrich Z677272, size M)
Data source: KCL GmbH, D-36124 Eichenzell, tel. +49 (0) 6659 87300, e-mail sales@kcl.de, test method: EN374
When used in solution, or mixed with other substances, and under conditions other than those mentioned in EN 374, contact the supplier of gloves approved by the EC. This recommendation applies to the Council and must be assessed by an Industrial Hygienist with the specific situation of intended use by our customers. You should not be interpreted as an endorsement of a specific exposure scenario.
Physical protection
Full protective clothing resistant to chemical substances, the type of protective equipment should be selected depending on the concentration and amount of hazardous substance in the workplace.
Respiratory protection
For low exposure levels to use respirators for dusts of P95 (US) type or of type P1 (EU EN 143). For most high security levels use cartridge type respirators OV/AG/P99 or ABEK-type P2 (EU EN 143). Use respirators and components tested and approved by the relevant standardisation bodies, such as the NIOSH (U.S.A.) CEN (EU).
PROTEASE:
Eye/face protection
Visor and goggles. Use eye protection tested and approved in accordance with the requirements of appropriate technical standards as NIOSH (US) or EN 166 (EU)

Skin protection
Manipulate with gloves. The gloves should be checked before being used. Use a suitable technique for the removal of gloves (without touching the outside of the glove) to avoid skin contact with this product dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands.
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SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Brown liquid	
Odour	slight fermentation	
Odour threshold	not determined	
pH	4,0 - 5,5 (20°C; sol. 1%)	
Melting point/freezing point	not applicable	
Initial boiling point and boiling range	not applicable	
Flash point	irrelevant	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	irrelevant	
Upper/lower flammability or explosive limits	irrelevant	
Vapour pressure	irrelevant	
Vapour density	irrelevant	
Relative density	1,00 - 1,25 (20°C)	
Solubility	not determined	
Water solubility	not determined	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	irrelevant	
Decomposition temperature	irrelevant	
Viscosity	not determined	
Explosive properties	irrelevant	
Oxidising properties	irrelevant	

9.2. Other information

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

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

Avoid exposure to heat

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = ∞
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞
(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skin corrosion/irritationbased on available data, the classification criteria are not met.
(c) serious eye damage/irritation: based on available data, the classification criteria are not met.
(d) respiratory or skin sensitization: The product, if inhaled, can cause sensitization.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) reproductive toxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.
==========
Related to contained substances:
AMMONIUM SULFATE:
LD50 Dermal Rat > 2000 mg/kg
Oral Rat LD50 2840 mg/kg
Oral LD50 Mouse 640 mg/kg
Lowest published lethal dose Oral pets. 3500 mg/kg-
LC50 Inhalation
Dusts and mists
Rat 1000 mg/m > 8 hours
LD50 (rat) Oral (mg/kg body weight) = 2840
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 1000
PROTEASE:
Acute toxic
No data available
Corrosion/irritation
No data available
Serious eye injuries/ocular severe irritation
No data available
Respiratory or skin sensitisation
May cause an allergic reaction.
Mutagenicit germ cell tumor
No data available
Cancerogenicit
IARC: no component of this product present at levels greater than or equal to 0.1% identified as known or anticipated carcinogen by IARC.
Reproductive toxic
No data available
Target organ-specific toxic-single exposure
Can irritate the respiratory system.
Target organ-specific toxic-exposure no data available
Danger in case of aspiration
No data available
Potential health consequences
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion can be dangerous if ingested.

The skin May be harmful if absorbed through the skin Causes skin irritation.
Causes serious eye irritation.
Signs and symptoms of exposure
Prolonged exposure can cause: asthma

SECTION 12. Ecological information

12.1. Toxicity

Use according to good working practices and avoid to disperse the product into the environment.
==========
Related to contained substances:
AMMONIUM SULFATE:
Acute Lc50 39200 to 43800 (fish-rainbow trout, trout-Oncorhynchus mykiss donaldson) (83d) effects: Mortality
Acute Lc50 36700 at 41900 (fish-rainbow trout, trout-Oncorhynchus mykiss donaldson) (83d) effects: Mortality
Acute Lc50 6600 to 8200 (fish-rainbow trout, trout-Oncorhynchus mykiss donaldson) (83d) effects: Mortality
PROTEASE:
No data available

12.2. Persistence and degradability

==========
Related to contained substances:
AMMONIUM SULFATE:
The product does not contain halogens linked to organic compounds that may contribute to the AOX value (absorbable organic halogens) drain water.
PROTEASE:
No data available

12.3. Bioaccumulative potential

==========
Related to contained substances:
PROTEASE:
No data available

12.4. Mobility in soil

==========
Related to contained substances:
PROTEASE:
No data available

12.5. Results of PBT and vPvB assessment

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. 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

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

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

Leg. 3/2/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Decree No. 14/3/2003. 65 (Classification, packaging and labeling of dangerous substances). Leg. 2/2/2002 n. 25 (risks related to chemical agents at work). Ministerial Decree Jobs 26/02/2004 (occupational exposure limits); DM 04/03/2007 (Implementation of Directive no. 2006/8/EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP), Regulation (EC) n.790/2009.D.Lgs. September 21, 2005 n. 238 (Seveso Directive Ter).

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
H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled
H315 = Causes skin irritation.
H319 = Causes serious eye irritation.
H335 = May cause respiratory irritation.
Classification based on data of all mixture components
Main normative references:
Directive 1999/45/EC.
Directive 2001/60/EC.
Regulation 1272/2008/EC.
Regulation 2010/453/EC.
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Changes to the previous edition: conformity Reg. 830