ENZYBREW L

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 20-02-23 Revision date: 20-02-23 Supersedes version of: 29-09-22 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Product name : ENZYBREW L
Product code : LIQ1665
Type of product : Detergent

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

REALCO S.A. S.A.
Avenue Albert Einstein, 15
BE– B-1348 Louvain-la-Neuve
Belgium
T +32 (0)10 45 30 00 - F +32 (0)10 45 63 63
info@realco.be - www.realco.be

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn B -1120 Brussels	+32 70 245 245	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

EUH-statements : EUH208 - Contains SUBTILISIN, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
subtilisin (9014-01-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, 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]
Alcohols, C12-C14, etoxylated, propoxylated	CAS-No.: 68439-51-0 EC-No.: 931-986-9	1 – 3	Aquatic Chronic 3, H412
subtilisin	CAS-No.: 9014-01-1 EC-No.: 232-752-2 EC Index-No.: 647-012-00-8 REACH-no: 01-2119480434-38	0.1 - 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	< 0,1	Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	(0,0015 ≤C < 100) Skin Sens. 1, H317 (0,06 ≤C < 0,6) Skin Irrit. 2, H315 (0,06 ≤C < 0,6) Eye Irrit. 2, H319 (0,6 ≤C < 100) Skin Corr. 1B, H314

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 : In case of doubt or persistent symptoms, consult always a physician. If on skin, take off contaminated clothing.

First-aid measures after inhalation : Allow affected person to breathe fresh air. Keep victim at rest in half upright position.

First-aid measures after skin contact : Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Drink plenty of water.

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

Symptoms/effects after inhalation : Cough. Shortness of breath. Vapours may cause drowsiness and dizziness.

Symptoms/effects after skin contact : Redness, pain.

Symptoms/effects after eye contact : Redness, pain. Blurred vision.
Symptoms/effects after ingestion : Ingestion may cause nausea, vomiting and diarrhea. Gastrointestinal complaints.

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 : Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.
Explosion hazard : Product is not explosive.
Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon oxides (CO, CO2).

5.3. Advice for firefighters

Precautionary measures fire : Self-contained breathing apparatus when in close proximity to fire.
Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Use water spray or fog for cooling exposed containers.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Personal protection. See Section 8.
Emergency procedures : Evacuate area.

6.1.2. For emergency responders

Protective equipment : Personal protection. See Section 8. Equip cleanup crew with proper protection.
Emergency procedures : Mark the danger area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dike for recovery or absorb with appropriate material.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Rinse with plenty of water.
Other information : Spill area may be slippery.

6.4. Reference to other sections

See Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Do not breathe vapours. Use personal protective equipment as required.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Provide for a tub to collect spills.
Storage conditions	:	Keep in a cool, well-ventilated place. Keep container closed when not in use.
Storage temperature	:	4 – 25 °C
Heat and ignition sources	:	Store away from direct sunlight or other heat sources.
Storage area	:	Store in a well-ventilated place.
Special rules on packaging	:	Keep only in original container. made of the same material as the supply container.
Packaging materials	:	PEHD.

7.3. Specific end use(s)

Cleaning product.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

subtilisin (9014-01-1)	
Belgium - Occupational Exposure Limits	
OEL TWA	0,00006 mg/m³

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:
Provide local exhaust or general room ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:
Insulated gloves. Safety glasses.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Eye protection (standard EN 166)

8.2.2.2. Skin protection

Skin and body protection:
Use chemically protective clothing

Hand protection:
Use neoprene or rubber gloves. (EN 134)

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Combined gas/dust mask with filter type A/P2

8.2.2.4. Thermal hazards

Thermal hazard protection:
No specific measures are necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Other information:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. The equipment must be cleaned thoroughly after each use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Yellow.
Odour	:	Not available
Odour threshold	:	Not determined
Melting point	:	The product has not been tested
Freezing point	:	The product has not been tested
Boiling point	:	The product has not been tested
Flammability	:	Not applicable
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Not applicable.
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	The product has not been tested
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not applicable
pH	:	9 – 10
Viscosity, kinematic	:	The product has not been tested
Viscosity, dynamic	:	The product has not been tested
Solubility	:	Material highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	The product has not been tested
Vapour pressure	:	The product has not been tested
Vapour pressure at 50 °C	:	Not available
Density	:	Not available
Relative density	:	1 – 1,1
Relative vapour density at 20 °C	:	The product has not been tested
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	:	The product has not been tested

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

Direct sunlight. Heat.

10.5. Incompatible materials

None under normal conditions.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

subtilisin (9014-01-1)	
LD50 oral	1800 mg/kg bodyweight

Alcohols, C12-C14, etoxylated, propoxylated (68439-51-0)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
pH: 9 – 10

Serious eye damage/irritation : Not classified
pH: 9 – 10

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

subtilisin (9014-01-1)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

ENZYBREW L	
Viscosity, kinematic	The product has not been tested

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

subtilisin (9014-01-1)	
LC50 - Fish [1]	8,2 mg/l (OECD 203 method)
EC50 - Crustacea [1]	586 µg/l (Daphnie sp.)
ErC50 algae	0,83 mg/l (OECD 201 method)

Alcohols, C12-C14, etoxylated, propoxylated (68439-51-0)	
LC50 - Fish [1]	1 – 10 mg/l (Desmodesmus subspicatus)
EC50 - Crustacea [1]	1 – 10 mg/l (Daphnia magna)
EC50 72h - Algae [1]	1 – 10 mg/l (Leuciscus idus)

12.2. Persistence and degradability

subtilisin (9014-01-1)	
Persistence and degradability	(OECD 301B method). Biodegradable.

Alcohols, C12-C14, etoxylated, propoxylated (68439-51-0)	
Biodegradation	70 % (OECD 301A method)

12.3. Bioaccumulative potential

ENZYBREW L	
Partition coefficient n-octanol/water (Log Pow)	The product has not been tested

subtilisin (9014-01-1)	
Partition coefficient n-octanol/water (Log Pow)	< 0
Bioaccumulative potential	not bioaccumulable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
subtilisin (9014-01-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Remove to an authorized waste treatment plant.
Sewage disposal recommendations : May be discharged to wastewater treatment installation.
Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point. When totally empty, containers are recyclable like any other packing.

Ecology - waste materials	:	Collect all waste in suitable and labelled containers and dispose according to local legislation. Avoid release to the environment.
European List of Waste (LoW) code	:	20 01 29* - detergents containing dangerous substances
R code/ D code	:	D9 - Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

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

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Detergent Regulation (648/2004)

Labelling of contents

Component	%
polycarboxylates, amphoteric surfactants, non-ionic surfactants	<5%
enzymes	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

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

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	
3	Composition/information on ingredients	Modified	

Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1

Full text of H- and EUH-statements:	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH208	Contains SUBTILISIN, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.