BIOREM FOAM

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 10/14/2022 Revision date: 10/14/2022 Supersedes: 3/15/2021 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : BIOREM FOAM
Product code : LIQ1611

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

REALZYME
S Pioneer BLVD, 223
Springboro, - OH 45066
United States of America
T +1 937 350 56 60 - F +1 937 350 56 60
info@realzyme.com - www.realzyme.com

1.4. Emergency telephone number

Emergency number : +1- 800 - 222 - 1222 (United States only) 011-32-70-245-245 (Canada and all other areas)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.

Full text of H-statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H318 - Causes serious eye damage.
Precautionary statements (GHS US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Alkyl polyglucoside C10-16	CAS-No.: 110615-47-9	1 – 3	Skin Irrit. 2, H315 Eye Dam. 1, H318
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-FC18-18 acyl derivs, hydroxides, inner salts	-	1 - 5	Eye Dam. 1, H318 Aquatic Chronic 3, H412
subtilisin	CAS-No.: 9014-01-1	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 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If on skin, take off contaminated clothing. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air. Allow affected person to breathe fresh air.

First-aid measures after skin contact : Rinse with plenty of water.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Cough.

Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause irritation.

Symptoms/effects after eye contact : Redness, pain. Blurred vision.

Symptoms/effects after ingestion : Abdominal pain, nausea.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : All extinguishing media allowed.

Unsuitable extinguishing media : None.

5.2. Specific hazards arising from the chemical

Fire hazard : Not combustible.

Explosion hazard : Product is not explosive.

Reactivity in case of fire : The product is stable at normal handling and storage conditions.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Wear proper protective equipment.
Firefighting instructions : Exercise caution when fighting any chemical fire.
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 : Equip cleanup crew with proper protection. See Section 8.
Emergency procedures : Mark the danger area. Stop leak if safe to do so.

6.2. Environmental precautions

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. Dilute residue with 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 : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : 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.
Special rules on packaging : Keep only in original container.
Packaging materials : PEHD.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

BIOREM FOAM
No additional information available

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-FC18-18 acyl derivs, hydroxides, inner salts
No additional information available

subtilisin (9014-01-1)	
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL STEL	0.00006 mg/m³ 60 minutes average value

Alkyl polyglucoside C10-16 (110615-47-9)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure adequate ventilation.

Environmental exposure controls : Prevent entry to sewers and public waters. Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Safety glasses. Mist formation: aerosol mask with filter type P3. Gloves.

Materials for protective clothing:
Use chemically protective clothing.

Hand protection:
In case of repeated or prolonged contact wear gloves. (EN 134)

Eye protection:
Chemical goggles or safety glasses. Eye protection (standard EN 166)

Skin and body protection:
Use chemically protective clothing

Respiratory protection:
Approved dust or mist respirator (acc. to EN 140 or EN 136) should be used if airborne particles are generated when handling this material. Recommended Filter: type P3 (acc. to EN 143). The entrepreneur has to ensur that maintenance cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

Personal protective equipment symbol(s):

Thermal hazard protection:

Not applicable.

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 : light yellow

Odour	:	characteristic
Odour threshold	:	Not determined
pH	:	7.7 – 9.7
Melting point	:	The product has not been tested
Freezing point	:	The product has not been tested
Boiling point	:	The product has not been tested
Flash point	:	The product has not been tested
Relative evaporation rate (butylacetate=1)	:	The product has not been tested
Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	The product has not been tested
Relative vapour density at 20 °C	:	The product has not been tested
Relative density	:	0.995 – 1.095
Solubility	:	Material highly soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	The product has not been tested
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not applicable
Viscosity, kinematic	:	The product has not been tested
Viscosity, dynamic	:	The product has not been tested
Explosive limits	:	No data available
Explosive properties	:	Not applicable.
Oxidising properties	:	Not applicable.

9.2. Other information

Additional information : None

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

None.

10.5. Incompatible materials

None under normal conditions.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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
ATE US (oral)	500 mg/kg bodyweight

Alkyl polyglucoside C10-16 (110615-47-9)	
LD50 oral	> 2000 mg/kg

Skin corrosion/irritation : Not classified
pH: 7.7 – 9.7

Serious eye damage/irritation : Causes serious eye damage.
pH: 7.7 – 9.7

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

Viscosity, kinematic : The product has not been tested

Symptoms/effects after inhalation : Cough.

Symptoms/effects after skin contact : Repeated or prolonged skin contact may cause irritation.

Symptoms/effects after eye contact : Redness, pain. Blurred vision.

Symptoms/effects after ingestion : Abdominal pain, nausea.

SECTION 12: Ecological information

12.1. Toxicity

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)

Alkyl polyglucoside C10-16 (110615-47-9)	
LC50 - Fish [1]	10 – 100 mg/l
EC0, microorganisms	> 100 mg/l

12.2. Persistence and degradability

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

Alkyl polyglucoside C10-16 (110615-47-9)	
Persistence and degradability	Biodegradable.

12.3. Bioaccumulative potential

BIOREM FOAM	
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. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal 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.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not applicable

TDG
Transport hazard class(es) (TDG) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

IATA
Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
No data available

TDG
No data available

IMDG
No data available

IATA
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-FC18-18 acyl derivs, hydroxides, inner salts		Present	Active	
subtilisin	9014-01-1	Present	Active	XU
Alkyl polyglucoside C10-16	110615-47-9	Present	Active	N;P

15.2. International regulations

CANADA

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-FC18-18 acyl derivs, hydroxides, inner salts
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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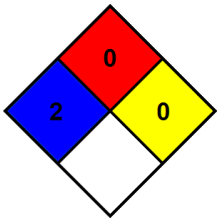
Revision date : 10/14/2022

Full text of H-statements	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Indication of changes:			
Section	**Changed item**	**Change**	**Comments**
1	Name	Modified	

Safety Data Sheet (SDS), USA

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.