

SAFETY DATA SHEET

Microzyme Sewage

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

1.1. Product identifier

Trade name

Microzyme Sewage

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

Relevant identified uses of the substance or mixture

No special

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Vecom Marine B.V.

Mozartlaan 3

3144 NA Maassluis

The Netherlands

+31 (0) 10-5930210

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<https://vecom-marine.com>

Contact person

Vecom Marine B.V.

E-mail

sales@vecom-marine.com

Revision

11/04/2022

SDS Version

2.0

Date of previous version

19/05/2021 (1.0)

▼ 1.4. Emergency telephone number

National Poisons Information Centre (NVIC): +31 (0)88-755-8000 (24 hour service)

Only intended to inform professional emergency services in case of acute poisoning.

See section 4 on first aid measures.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP)

2.2. Label elements

Hazard pictogram(s)

Not applicable

Signal word

Not applicable

Hazard statement(s)

Not applicable

Safety statement(s)

General

-

Prevention

-
Response

-
Storage

-
Disposal

Hazardous substances

No special

2.3. Other hazards

Additional labelling

EUH210, Safety data sheet available on request.

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

▼ 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve	CAS No.: 111-76-2 EC No.: 203-905-0 REACH: 01-2119475108-36-XXXX Index No.: 603-014-00-0	<1%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332	[1]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30°C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

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

No special

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

No special

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Fire fighters should wear appropriate personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No specific requirements

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

▼ 6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Dry, cool and well ventilated

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

▼ 8.1. Control parameters

—
2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl

cellosolve

Short term exposure limit (15 minutes) (mg/m³): 246

Long term exposure limit (8 hours) (mg/m³): 100

Annotations:

H = Special risk of dermal absorption.

Annex XIII of the Working Conditions Regulation, List of legal limit values.

DNEL

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	89 mg/kg/d
Route of exposure	Dermal
Duration	Short term – Systemic effects - Workers

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	1091 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	246 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Local effects - Workers

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	125 mg/kg/d
Route of exposure	Dermal
Duration	Long term – Systemic effects - Workers

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	98 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - Workers

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	89 mg/kg/d
Route of exposure	Dermal
Duration	Short term – Systemic effects - General population

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	426 mg/m ³
Route of exposure	Inhalation
Duration	Short term – Systemic effects - General population

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	26.7 mg/kg/d
Route of exposure	Oral

Duration	Short term – Systemic effects - General population
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	147 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Local effects - General population
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	75 mg/kg/d
Route of exposure	Dermal
Duration	Long term – Systemic effects - General population
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	59 mg/m ³
Route of exposure	Inhalation
Duration	Long term – Systemic effects - General population
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
DNEL	6.3 mg/kg/d
Route of exposure	Oral
Duration	Long term – Systemic effects - General population

PNEC

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	8.8 mg/l
Route of exposure	Freshwater
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	0.88 mg/l
Route of exposure	Marine water
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	463 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	34.6 mg/kg TG
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve

PNEC	3.46 mg/kg TG
Route of exposure	Marine water sediment
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	2.33 mg/kg TG
Route of exposure	Soil
Duration of Exposure	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
PNEC	26.4 mg/l
Route of exposure	Intermittent release
Duration of Exposure	

▼ 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼ Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements

Individual protection measures, such as personal protective equipment

▼ Generally

No specific requirements

Respiratory Equipment

No specific requirements

Skin protection

No specific requirements

Hand protection

No specific requirements

Eye protection

No specific requirements

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

White

Odour / Odour threshold

Sweet

pH

6 tot 8,5

▼ Density (g/cm³)

1 (20 °C)

▼ Relative density

1 (20 °C)

▼ Kinematic viscosity

1 mPa.s

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

Testing not relevant or not possible due to nature of the product.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Soluble

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

▼ Other physical and chemical parameters

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	>300 - 2000 mg/kg
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Guinea pig
Route of exposure	Oral
Test	LD50
Result	1400 mg/kg
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg
Other information	

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

No special

Endocrine disrupting properties

No special

Other information

2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	1464 mg/L
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Fish
Compartment	
Duration	21 days
Test	NOEC
Result	>100 mg/L
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	1550 mg/L
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Daphnia
Compartment	
Duration	21 days
Test	NOEC
Result	100 mg/L
Other information	

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Algae

Compartment	
Duration	72 hours
Test	EbC50
Result	911 mg/L
Other information	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Bacteria
Compartment	
Duration	16 hours
Test	EC 3
Result	>700 mg/L
Other information	
Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Species	Bacteria
Compartment	
Duration	48 hours
Test	EC 5
Result	463 mg/L
Other information	

12.2. Persistence and degradability

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Biodegradable	Yes
Test method	OECD 301 B
Result	90.4% in 28 d

12.3. Bioaccumulative potential

Product/substance	2-butoxyethanol;2-butoxyethanol; ethylene glycol monobutyl ether;ethylene glycol monobutyl ether;butyl cellosolve
Test method	
Potential bioaccumulation	No data available
LogPow	0.81
BCF	No data available
Other information	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special

12.7. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

▼ Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

Not applicable

Additional information

Not applicable

▼ Sources

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H312, Harmful in contact with skin.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

▼ Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

Not applicable

▼ The safety data sheet is validated by

RK

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: NL-en