

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

1.1. Product identifier

Product code : Hygienfresh PreZym

Trades code : A31-000

Product line: Hygienfresh

UFI: UJY1-U0S8-C00F-X6E5

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

Pretrattante super concentrated enzyme

Sectors of use:

Industrial Manufacturing[SU3], Private households (= general public = consumers)[SU21], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Washing and Cleaning Products (including solvent based products)

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Tintolav s.r.l. - Via M. D' Antona 7 - 10028 Trofarello (TO) Tel. 011/649.68.27 Fax 011/649.67.42

Email: info@tintolav.com - Sito internet: www.tintolav.com

Email tecnico competente: a.conedera@tintolav.com

National contact: Malta: Emergency Ambulance 112

Accident & Emergency Department 2545 4030

1.4. Emergency telephone number

The UK National Poisons Emergency number +44 (0)870 600 6266

London: Emergency 24 hour telephone +44 (0) 207188 0100

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

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

Pictograms:

GHS07

Hazard Class and Category Code(s):

Skin Irrit. 2, Eye Irrit. 2

Hazard statement Code(s):

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

If brought into contact with eyes, the product causes significant irritations which may last for more than 24 hours, if brought into contact with skin, it causes significant inflammation with erythema, scabs, or edema

2.2. Label elements

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

Pictogram, Signal Word Code(s):
GHS07 - Warning



Hazard statement Code(s):
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Supplemental Hazard statement Code(s):
EUH208 - Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

Precautionary statements:

General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

Prevention

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 - IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

Contains (Reg.CE 648/2004):

5% < 15% Non-ionic surfactants, Anionic surfactants, < 5% Enzymes, Methylchloroisothiazolinone, Methylisothiazolinone.

Content of VOC ready to use condition: 0,00 %

UFI: UJY1-U0S8-C00F-X6E5

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

No information on other hazards

SECTION 3. Composition/information on ingredients**3.1 Substances**

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Note B - Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1).	$\geq 5 < 15\%$	Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE oral = 1.653,0 mg/kg ATE dermal = 4.199,0 mg/kg	ND	27323-41-7	248-406-9	ND
Alcohols, C13-15, branched and linear, ethoxylated	$\geq 5 \leq 10,00\%$	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Irrit. 2, H319 3 $\leq \%C < 10$; Eye Dam. 1, H318 $\%C > 10$; 1 1 ATE oral $> 300,0$ mg/kg	ND	157627-86-6	ND	ND
2-(2-butoxyethoxy)ethanol	$\geq 1 < 5\%$	Eye Irrit. 2, H319 ATE oral = 1.720,0 mg/kg ATE dermal = 2.700,0 mg/kg ATE inhal = 374,0mg/l/4 h	603-096-00-8	112-34-5	203-961-6	ND
Sodium Lauryl Ether sulfate	$\geq 1 < 5\%$	Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Dam. 1, H318 $\%C \geq 10$; Eye Irrit. 2, H319 5 $\leq \%C < 10$; 1 1 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg ATE inhal = 4.100,0mg/l/4 h	ND	68891-38-3	500-234-8	01-2119488 639-16
2-aminoethanol, monoester with boric acid	$\geq 0,1 < 1\%$	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	10377-81-8	233-829-3	ND
Subtilisin substance for which there are Community workplace exposure limits	$< 0,1\%$	Skin Irrit. 2, H315; Eye Dam. 1, H318; Resp. Sens. 1, H334; STOT SE 3, H335	647-012-00-8	9014-01-1	232-752-2	01-2119480 434-38

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		ATE oral = 1.800,0 mg/kg ATE inhal = 0,1mg/l/4 h				
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) Note: B	< 0,1%	EUH071; Acute Tox. 3, H301; Acute Tox. 2, H310; Skin Corr. 1C, H314; Skin Sens. 1, H317; Eye Dam. 1, H318; Acute Tox. 2, H330; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Limits: Skin Corr. 1C, H314 %C >=0,6; Skin Irrit. 2, H315 0,06<=%C <0,6; Eye Dam. 1, H318 %C >=0,6; Eye Irrit. 2, H319 0,06<=%C <0,6; Skin Sens. 1A, H317 %C >=0,0015; 100 100	613-167-00-5	55965-84-9	ND	ND

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:

Air 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):

Take contaminated clothing Immediately off.

Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.

In case of contact with skin, wash immediately with water and soap.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

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 skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If medical advice is needed, have product container or label at hand.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:

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

Extinguishing means 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 suit.

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

You may also use selfrespirator, especially when working in confined and poorly ventilated area 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 mask, gloves and protective clothing.

6.1.2 For emergency responders:

Wear mask, gloves and protective clothing.

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

Provision of sufficient ventilation.

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

6.2. Environmental precautions

Contain spill with earth or sand.

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

Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For 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 For 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
Wear protective gloves/protective clothing/eye protection/face protection.
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 unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and direct exposure of sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:
Handle with extreme caution.
Store in a well ventilated place away from heat sources.

Private households (= general public = consumers):
Handle with care.
Store in ventilated place away from heat sources,
Keep the 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:
2-(2-butoxyethoxy)ethanol:
CVE: TWA 10 ppm 67.5 mg/m³ STEL 15 ppm 101.2 mg/m³
MAK DFG 10 ppm 67 mg/m³

Subtilisin:
ACGIH TLV: Ceiling: 0.00006 mg/m³ Ceiling (as crystalline active enzyme, listed under Subtilisins)
Belgium: 0.00006 mg/m³ Maximum Limit Value (8 hours)
Denmark: Ceiling: 0.00006 mg/m³
Ireland: TWA: 0.00006 mg/m³ STEL: 0.00006 mg/m³
Netherlands: Ceiling: 0.00006 mg/m³
Norway: 0.00006 mg/m³ Ceiling
Portugal: Ceiling: 0.00006 mg/m³
Spain: VLA-EC: 0.00006 mg/m³
Sweden: 1 glycineunit/m³ LLV 3 glycineunit/m³ LLV
Switzerland: STEL: 0.00006 mg/m³
Germany: = 1 glycineunit/m³ LLV = 3 glycineunit/m³ LLV
United Kingdom: 0.00004 mg/m³ TWA

- Substance: 2-(2-butoxyethoxy)ethanol
DNEL
Systemic effects Long term Workers inhalation = 67,5 (mg/m³)
Systemic effects Long term Workers dermal = 20 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 34 (mg/m³)
Systemic effects Long term Consumers dermal = 10 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 1,25 (mg/kg bw/day)
Local effects Long term Workers inhalation = 67,5 (mg/m³)
Local effects Long term Consumers inhalation = 34 (mg/m³)
Local effects Short term Workers inhalation = 101,2 (mg/m³)
Local effects Short term Consumers inhalation = 50,6 (mg/m³)
PNEC
Sweet water = 1 (mg/l)
sediment Sweet water = 4 (mg/kg/sediment)
Sea water = 0,1 (mg/l)
sediment Sea water = 0,44 (mg/kg/sediment)
intermittent emissions = 3,9 (mg/l)
STP = 200 (mg/l)
ground = 0,32 (mg/kg ground)

- Substance: Sodium Lauryl Ether sulfate

DNEL

Systemic effects Long term Workers inhalation = 175 (mg/m³)
Systemic effects Long term Workers dermal = 2750 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 52 (mg/m³)
Systemic effects Long term Consumers dermal = 1650 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 15 (mg/kg bw/day)
PNEC
Sweet water = 0,24 (mg/l)
sediment Sweet water = 5,45 (mg/kg/sediment)
Sea water = 0,02 (mg/l)
sediment Sea water = 0,54 (mg/kg/sediment)
intermittent emissions = 0,07 (mg/l)
STP = 10000 (mg/l)
ground = 0,946 (mg/kg ground)

- Substance: 2-aminoethanol, monoester with boric acid

DNEL

Systemic effects Long term Workers inhalation = 5,9 (mg/m³)
Systemic effects Long term Workers dermal = 3,3 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 1,4 (mg/m³)
Systemic effects Long term Consumers dermal = 1,7 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 1,7 (mg/kg bw/day)
PNEC
Sweet water = 0,026 (mg/l)
sediment Sweet water = 0,054 (mg/kg/sediment)
Sea water = 0,003 (mg/l)
sediment Sea water = 0,005 (mg/kg/sediment)
intermittent emissions = 0,26 (mg/l)
STP = 10 (mg/l)
ground = 0,014 (mg/kg ground)

- Substance: trisodium citrate

PNEC

Sweet water = 0,44 (mg/l)
sediment Sweet water = 34,6 (mg/kg/sediment)
Sea water = 0,04 (mg/l)
sediment Sea water = 3,46 (mg/kg/sediment)
STP = 1000 (mg/l)
ground = 33,1 (mg/kg ground)

- Substance: Subtilisin**DNEL**

Systemic effects Long term Consumers oral = 1,8 (mg/kg bw/day)

Systemic effects Short term Consumers oral = 3,6 (mg/kg bw/day)

Local effects Long term Workers inhalation = 0,06 (mg/m3)

Local effects Long term Consumers inhalation = 0,000015 (mg/m3)

PNEC

Sweet water = 0,0017 (mg/l)

Sea water = 0,00017 (mg/l)

intermittent emissions = 0,0009 (mg/l)

STP = 65 (mg/l)

ground = 0,568 (mg/kg ground)

- Substance: amylase, α-**DNEL**

Local effects Long term Workers inhalation = 0,00006 (mg/m3)

Local effects Long term Consumers inhalation = 0,000015 (mg/m3)

PNEC

Sweet water = 0,0052 (mg/l)

Sea water = 0,00052 (mg/l)

intermittent emissions = 0,052 (mg/l)

STP = 65 (mg/l)

ground = 0,001 (mg/kg ground)

- Substance: Lipase**DNEL**

Local effects Long term Workers inhalation = 0,00006 (mg/m3)

Local effects Long term Consumers inhalation = 0,000015 (mg/m3)

PNEC

Sweet water = 0,018 (mg/l)

Sea water = 0,0018 (mg/l)

intermittent emissions = 0,18 (mg/l)

STP = 65 (mg/l)

ground = 0,0028 (mg/kg ground)

- Substance: cellulase**DNEL**

Local effects Long term Workers inhalation = 0,00006 (mg/m3)

Local effects Long term Consumers inhalation = 0,000015 (mg/m3)

PNEC

Sweet water = 0,0237 (mg/l)

Sea water = 0,00237 (mg/l)

intermittent emissions = 0,237 (mg/l)

STP = 65 (mg/l)

ground = 0,00376 (mg/kg ground)

8.2. Exposure controlsAppropriate engineering controls:
Industrial Manufacturing:

No specific monitoring foreseen

Private households (= general public = consumers):

No specific checks planned

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen

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

Manipulate with gloves. The gloves should be checked before being used. Use a technique suitable 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 the 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

permeation time: 480 min

(ii) Other

When handling the pure product wear full protective skin clothing.

(c) Respiratory protection

Not needed for normal use.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Related to contained substances:

Subtilisin:

The local authority must be informed if the losses cannot be limited

Waste water must be conveyed to the waste water treatment plant

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Liquid	
Colour	straw yellow	
Odour	Characteristic	
Odour threshold	not determined	
Melting point/freezing point	not determined	

Physical and chemical properties	Value	Determination method
Boiling point or initial boiling point and boiling range	not determined	
Flammability	nonflammable	
Lower and upper explosion limit	not determined	
Flash point	> 65°C	ASTM D92
Auto-ignition temperature	undefined	
Decomposition temperature	not determined	
pH	8.5 - 9.5	
Kinematic viscosity	not determined	
Solubility	Completely soluble in water	
Water solubility	Completely soluble in water	
Partition coefficient n-octanol/water (log value)	not determined	
Vapour pressure	not determined	
Density and/or relative density	1,00 - 1,10 gr/cm ³	
Relative vapour density	not determined	
Particle characteristics	irrelevant	

9.2. Other information

Content of VOC ready to use condition: 0,00 %

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**

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

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

Avoid contact with air.

10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.

It can generate toxic gases to contact with inorganic sulfide, strong reducing agents.

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**

ATE(mix) oral = 5.555,6 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: based on available data, the classification criteria are not met.

(b) skin corrosion/irritation: If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1): Irritating

Sodium Lauryl Ether sulfate: Acute effects: contact with eyes will cause irritation; symptoms may include: redness, edema, pain and tears.

Through contact with the skin has irritation with erythema, edema, dryness and cracking.

2-aminoethanol, monoester with boric acid: Irritation of the skin:

Rabbit (New Zealand White): non-irritant, (1993). Eye irritation:

Rabbit (New Zealand White): moderately irritating, 1998

Bovine (in vitro study): not severely irritating or corrosive, 2010

(c) serious eye damage/irritation: If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1): Irritating

2-(2-butoxyethoxy)ethanol: Eyes-rabbit Result: Mild eye irritation-24h

(d) respiratory or skin sensitisation: Subtilisin: Respiratory system: substance-sensitizing (human experience)

(e) germ cell mutagenicity: 2-(2-butoxyethoxy)ethanol: Mutagenicity-Bacterial,: negative +/-activation

Chromosomal aberration,: negative +/-activation

Mutagenicity-Mammalian,: negative +/-activation

Subtilisin: No indication of mutagenic effects (OECD TG 471, 473, 476)

(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: Subtilisin: Target organ-specific toxic (single exposure) Irritant, respiratory tract (ACGIH 2001)

(i) specific target organ toxicity (STOT) repeated exposure: Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1): Rabbit 90-day dermal NOAEL > 5 mg/kg bw (only dose tested)

(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1):

LD50 (rat) Oral (mg/kg body weight) = 1653

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 4199

Alcohols, C13-15, branched and linear, ethoxylated:

LD50 (rat) Oral (mg/kg body weight) > 300

2-(2-butoxyethoxy)ethanol:

INHALATION RISK: A harmful contamination of air has reached slowly for evaporation of this substance at 20 °C;

However, for spraying or scattering, much more quickly.

Effects of short-term exposure: the substance is irritating to eyes the effects of REPEATED EXPOSURE or long term: the liquid degreasing the skin features.

ACUTE HAZARDS/symptoms dry SKIN.

EYE Redness. Pain.

LD50 (rat) Oral (mg/kg body weight) = 1720

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2700

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 374

Sodium Lauryl Ether sulfate:

LD50 (alcohols, C12-14, ethoxylated, sulfated, sodium salts; CAS No.: 68891-38-3)

Via Inhalation Administration:

Test species: rat

Value: 4100 mg/kg

Specification: LD50 (alcohols, C12-14, ethoxylated, sulfated, sodium salts; CAS No.: 68891-38-3)

Via Dermal intake:

Test species: rat

Value: > 2000 mg/kg

LD50 (rat) Oral (mg/kg body weight) = 2000

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 4100

2-aminoethanol, monoester with boric acid:

Acute oral toxicity

Parameter: LD50 (2-aminoethanol, monoester with boric acid; CAS No.: 10377-81-8)

Exposure route: Orally

Species: Rat

Effective dose: > 2000 mg / kg

Acute dermal toxicity

Parameter: discriminating dose. (2-aminoethanol, monoester with boric acid; CAS No.: 10377-81-8)

Exposure route: Dermal

Species: Rat

Effective dose: > 2000 mg / kg

LD50 (rat) Oral (mg/kg body weight) = 2000

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

Subtilisin:

LD50 (rat) Oral (mg/kg body weight) = 1800

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 0,13

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

Dodecylbenzenesulphonic acid, compound with 2,2',2''nitrilotriethanol (1:1):

C(E)L50 (mg/l) = 2,6

Alcohols, C13-15, branched and linear, ethoxylated:

C(E)L50 (mg/l) = 1

2-(2-butoxyethoxy)ethanol:

Toxic to fish LC50-Ipomismacrobichirus-1,300 mg/l-96 h CL0-Leuciscus idus (dare or Golden)-> 1,000 mg/l-48 h Toxic to daphnia and other aquatic invertebrates: EC50 Daphnia magna (water Flea grande)-2850 mg/l-48 h for Toxic Algae

Desmodesmus subspicatus CI50-(green)-100 mg/l >-12:0 am Toxic to bacteria LC50-Acinetobacter-1,170 mg/l-4:0 pm

C(E)L50 (mg/l) = 1300 1

1

Sodium Lauryl Ether sulfate:

LC50 (alcohols, C12-14, ethoxylated, sulfated, sodium salts; CAS No.: 68891-38-3)

Parametro: Fish

Danio Rerio

Value = 7.1 mg/l

For. test: 96 h

Specification: EC50 (alcohols, C12-14, ethoxylated, sulfated, sodium salts; CAS No.: 68891-38-3)

Parametro: Daphnia

Daphnia magna

Value = 7.2 mg/l

For. test: 48 h

Specification: EC50 (alcohols, C12-14, ethoxylated, sulfated, sodium salts; CAS No.: 68891-38-3)

Parametro: Algae

Scenedesmus subspicatus

Value = 27 mg/l

C(E)L50 (mg/l) = 7,1 1

1

2-aminoethanol, monoester with boric acid:

Acute (short-term) toxicity on fish

Parameter: LC50 (2-aminoethanol, monoester with boric acid; CAS No.: 10377-81-8)

Species: Cyprinus carpio

Effective dose: = 617 mg / l

Exposure time: 96 h

Acute (short-term) toxicity to Daphnia

Parameter: EC50 (2-aminoethanol, monoester with boric acid; CAS No.: 10377-81-8)

Species: Daphnia magna

Effective dose: = 423 mg / l

Exposure time: 48 h

Acute (short-term) toxicity to algae

Parameter: EC50 (2-aminoethanol, monoester with boric acid; CAS No.: 10377-81-8)

Species: Pseudokirchneriella subcapitata

Effective dose: = 26 mg / l

Exposure time: 72 h

C(E)L50 (mg/l) = 26 1

1

Subtilisin:

C(E)L50 (mg/l) = 0,586

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1):

Acute toxicity to fish

The material is very toxic to aquatic organisms (LC50 / EC50 / IC50 below 1 mg / l for the most sensitive species).

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.19 mg / l, OECD Test Guideline 203 or equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), Flow-through test, 48 h, 0.16 mg / l, OECD Test Guideline 202 or equivalent
Acute toxicity to algae / aquatic plants
EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, 0.027 mg / l, OECD Test Guideline 201 or equivalent
NOEC, Skeletonema costatum, Static test, 72 h, Growth rate, 0.0014 mg / l
Chronic toxicity to fish
NOEC, Rainbow trout (Oncorhynchus mykiss), flow, 14 d, 0.05 mg / l
Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna, Flow-through test, 21 d, 0.1 mg / l
100
NOEC (mg/l) = 0,05 100

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The substance miscible in water and would leach into the groundwater, be lost in groundwater and be biologically degraded.

85% (28 d, Ready Biodegradability: Modified MITI Test (s)) readily biodegradable

Sodium Lauryl Ether sulfate:

Easily biodegradable

2-aminoethanol, monoester with boric acid:

Parameter: Biodegradation

Effective dose: approx. 73%

Exposure time: 28 days

Parameter: Biodegradation

Effective dose: > 60%

Exposure time: 10 days

Easily biodegradable.

Subtilisin:

Rapidly biodegradable (OECD TG 301B)

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1):

Biodegradation (aquatic metabolism): 5-chloro-2-methyl-4-isothiazolin-3-one (CMIT):

t $\frac{1}{2}$ anaerobic = 0.2 days. t $\frac{1}{2}$ aerobic = 0.38 - 1.3 days. 2-methyl-4-isothiazolin-3-one (MIT): aerobic t $\frac{1}{2}$ = 0.38 - 1.4 days

Biodegradability: Considered to be rapidly degradable. The product is not readily biodegradable according to OECD / EC criteria.

Biodegradation: <50%

Exposure time: 10 d

Photodegradation

Atmospheric half-life: 0.38 - 1.3 d

12.3 Bioaccumulative potential

Partition coefficient: n-octanol / water (log Pow): 0.401 Method not specified.

12.3. Bioaccumulative potential

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The substance is not expected to bioaccumulate.

Subtilisin:
Do not bio-accumulate

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1):

Low potential for bioconcentration (FBC or Log Pow < 100 < 3).

12.4. Mobility in soil

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The high idrosolubilit and low octanol/water partition coefficient indicates that adsorption to suspended solids and sediments are not significant

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 scope of application 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. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION 15. Regulatory information

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

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

Restrictions relating to the product or to substances contained in annex XVII to Regulation (EC) 1907/2006.

3 product section.

Substances.

Point. 55 BUTYL DIGLYCOL

REGULATION (EU) No 1357/2014 - waste:

HP4 - Irritant — skin irritation and eye damage

Substances in the Candidate List (REACH Article 59)

Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION 16. Other information

16.1. Other information

Points modified compared to previous release: 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 4.1. Description of first aid measures, 8.1. Control parameters, 9.2. Other information, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H302 = Harmful if swallowed.

H318 = Causes serious eye damage.

H412 = Harmful to aquatic life with long lasting effects.

H335 = May cause respiratory irritation.

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

H301 = Toxic if swallowed.

H310 = Fatal in contact with skin.

H314 = Causes severe skin burns and eye damage.
H317 = May cause an allergic skin reaction.
H330 = Fatal if inhaled.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.

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

Classification according to Regulation (EC) Nr. 1272/2008

H315 - Causes skin irritation. Classification procedure: Calculation method
H319 - Causes serious eye irritation. Classification procedure: Calculation method

Main normative references:

Directive 1999/45/EC
Directive 2001/60/EC
Regulation 1272/2008/EC
Regulation 2010/453/EC

** The information contained herein is based on our knowledge at the date above.

Related solely to the product and do not constitute a guarantee of a particular quality.

It is the duty of the user to ensure that these are appropriate and complete information regarding the specific use intended.

This data sheet cancels and replaces any previous edition.
