

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

1.1. Product identifier

Product code : Hygienfresh Detergente Enzima
Trades code : A39-505
Product line: Hygienfresh

UFI: QPN2-C0JW-Q006-P5S1

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

Super concentrated active enzymatic cleaner

Sectors of use:

Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

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):
Eye Irrit. 2

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

If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2. Label elements

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

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



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

Supplemental Hazard statement Code(s):
EUH208 - Contains Subtilisin, 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:

Prevention

P264 - Wash your hand thoroughly after handling.

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

Response

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

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

Contains (Reg.EC 648/2004):

>= 5% < 15% Anionic surfactants, < 5% Non-ionic surfactants, Enzymes, Perfumes, Hexamethylindanopyran, Terpineol, Citronellol, Hexyl cinnamal, Methylchloroisothiazolinone, Methylisothiazolinone

For professional use only

UFI: QPN2-C0JW-Q006-P5S1

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

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).	>= 5 < 15%	Skin Irrit. 2, H315; Eye Irrit. 2, H319 ATE oral = 1.653,000 mg/kg ATE dermal = 4.199,000 mg/kg	ND	27323-41-7	248-406-9	ND
Alcohols, C13-15, branched and linear, ethoxylated	>= 3,00 < 5%	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Irrit. 2, H319 3<= %C <10; Eye Dam. 1, H318 %C >10; 1 1 ATE oral > 300,000 mg/kg	ND	157627-86-6	ND	ND
sodium cumenesulphonate	>= 1 < 5%	Eye Irrit. 2, H319; STOT SE 3, H335 ATE oral = 5.200,000 mg/kg ATE dermal = 2.000,000 mg/kg ATE inhal = 5.000,000 mg/l/4 h	ND	28348-53-0	248-983-7	ND
2,2',2"-nitrilotriethanol	>= 0,1 < 1%	Eye Irrit. 2, H319 ATE oral = 5.000,000 mg/kg ATE dermal = 2.000,000 mg/kg	ND	102-71-6	203-049-8	01-2119486 428-31-xxxx
Subtilisin	>= 0,1 < 1%	Skin Irrit. 2, H315; Eye Dam. 1, H318; Resp. Sens. 1, H334; STOT SE 3, H335 ATE oral = 1.800,000 mg/kg ATE inhal = 0,130 mg/l/4 h	647-012-00-8	9014-01-1	232-752-2	01-2119480 434-38
2-aminoethanol, monoester with boric acid	< 0,1%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 ATE oral = 2.000,000 mg/kg ATE dermal = 2.000,000 mg/kg	ND	10377-81-8	233-829-3	ND
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. 1A, 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	613-167-00-5	55965-84-9	ND	ND

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		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				

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 soap and water

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 eye irritation persists: Get medical advice/attention.

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 a mask, gloves, and protective clothing. Suitable: latex, nitrile, PVC.
Eliminate all open flames and possible sources of ignition. Do not smoke.
Provide adequate ventilation.
Evacuate the danger area and, if necessary, 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.

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',2"-nitrioltriethanol:

TWA: 5 from ACGIH (TLV) [United States] [2001]

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: sodium cumenesulphonate

DNEL

Systemic effects Long term Workers inhalation = 26,9 (mg/m³)

Systemic effects Long term Workers dermal = 136,25 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 6,6 (mg/m³)

Systemic effects Long term Consumers dermal = 68,1 (mg/kg bw/day)

Systemic effects Short term Consumers oral = 3,8 (mg/kg bw/day)

Local effects Long term Workers dermal = 0,096 (mg/kg bw/day)

Local effects Long term Consumers dermal = 0,048 (mg/kg bw/day)

PNEC

Sweet water = 0,23 (mg/l)

sediment Sweet water = 0,862 (mg/kg/sediment)

Sea water = 0,023 (mg/l)

sediment Sea water = 0,086 (mg/kg/sediment)

STP = 100 (mg/l)

ground = 0,037 (mg/kg ground)

- Substance: 2,2',2"-nitrioltriethanol

DNEL

Systemic effects Long term Workers inhalation = 5 (mg/m³)

Systemic effects Long term Workers dermal = 6,3 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,25 (mg/m³)

Systemic effects Long term Consumers dermal = 3,1 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 13 (mg/kg bw/day)

Local effects Long term Workers inhalation = 5 (mg/m³)

Local effects Long term Consumers inhalation = 1,25 (mg/m³)

PNEC

Sweet water = 0,32 (mg/l)

sediment Sweet water = 1,7 (mg/kg/sediment)

Sea water = 0,03 (mg/l)

sediment Sea water = 0,17 (mg/kg/sediment)

STP = 10 (mg/l)

ground = 0,15 (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)

STP = 65 (mg/l)

ground = 0,568 (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)

STP = 10 (mg/l)

ground = 0,014 (mg/kg ground)

8.2. Exposure controls



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen

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

Handle with gloves. Gloves must be inspected before use. Use a suitable glove removal technique (without touching the outer surface of the glove) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with current regulations and good laboratory practices. Wash and dry hands.

The protective gloves selected must meet the requirements of EU Directive 89/686/EEC and the EN 374 standards derived from it.

Full contact

Material: Nitrile rubber

Minimum thickness: 0.11 mm

Breakthrough time: 480 min

The choice of an appropriate glove depends not only on the material but also on other quality characteristics, which vary from one manufacturer to another.

To choose the type of gloves to use, consult the glove supplier/manufacturer.

Follow the instructions regarding permeability and breakthrough time provided by the glove supplier.

(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	Blue	
Odour	Characteristic	
Odour threshold	not determined	
Melting point/freezing point	< 4 °C	
Boiling point or initial boiling point and boiling range	not determined	
Flammability	not determined	
Lower and upper explosion limit	not determined	
Flash point	> 65 °C	ASTM D92
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
pH	8.5 - 9.5	
Kinematic viscosity	not determined	
Solubility	Completely soluble in water	

Physical and chemical properties	Value	Determination method
Water solubility	Completely soluble in water	
Partition coefficient n-octanol/water (log value)	not determined	
Vapour pressure	not determined	
Density and/or relative density	1,100 - 1,150 gr/cm ³	
Relative vapour density	not determined	
Particle characteristics	irrelevant	

9.2. Other information

Content of VOC ready to use condition: 0,23 %

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

Nothing to report

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 = 7.228,9 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: Dodecylbenzenesulphonic acid, compound with 2,2',2"-nitrilotriethanol (1:1): Irritating
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

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

(e) germ cell mutagenicity: 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

sodium cumenesulphonate:

Oral LD50 (rat): 5.2 g/kg

Dermal LD 50 (rat): > 2.0 g/kg

LD 50 (inhalation, dust/mist, rat) > 5 mg/l/4:0

LD50 (rat) Oral (mg/kg body weight) = 5200

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

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5000

2,2',2"-nitrilotriethanol:

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 2200 mg/kg [Rabbit].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.

May cause damage to the following organs: kidneys, liver, skin.

Other Toxic Effects on Humans:

Hazardous in case of skin contact (permeator), of ingestion, of inhalation.

Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals:

LD50 [Rat] - Route: Oral; Dose: 4920 ul/kg

LD50 [Rabbit] - Route: Skin; Dose: >20ml/kg

Special Remarks on Chronic Effects on Humans:

May cause cancer (tumorigenic) based on animal data.

May affect genetic material (mutagen): cytogenic analysis (human lymphocyte) = 100 umol/L; sister chromatid exchange (human lymphocyte) = 1mmol/L.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: May cause skin irritation with burning pain, itching, and redness. May be absorbed through the skin and affect the liver, metabolism, and urinary tract.

Eyes: Causes eye irritation with tearing and burning pain. May cause transient corneal injury.

Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May also affect behavior, sense organs, liver and urinary system.

Inhalation: Inhalation of mist may cause respiratory tract irritation. May also affect the liver, blood, urinary system and cardiovascular system.

Chronic Potential Health Effects: May cause liver and kidney damage. Prolonged or repeated contact may cause skin necrosis and /or ulceration of the skin.

LD50 (rat) Oral (mg/kg body weight) = 5000

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

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

11.2. Information on other hazards

No data available.

11.2.1. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

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

sodium cumenesulphonate:

-Species: Algae EC50 = 230 mg/l-h Duration: 96

-Species: Daphnia EC50 = 1000 mg/l-h Duration: 48

-Species: Fish LC50 = 1000 mg/l-h Duration: 96

2,2',2"-nitrilotriethanol:

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

C(E)L50 (mg/l) = 1390 1

1

Subtilisin:

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

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

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:

Subtilisin:

Rapidly biodegradable (OECD TG 301B)

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.

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):
 $t_{1/2}$ anaerobic = 0.2 days. $t_{1/2}$ aerobic = 0.38 - 1.3 days. 2-methyl-4-isothiazolin-3-one (MIT): aerobic $t_{1/2}$ = 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:

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

No data available.

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

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

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

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.
