

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product code : Hygienfresh Detergente BioOrky

Trades code : A39-519

Product line: Hygienfresh

UFI: QDS1-E02P-900T-AMFH

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

Deo concentrated detergent

Sectors of use:

Industrial Manufacturing[SU3], Private households (= general public = consumers)[SU21], 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 &amp; 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, Aquatic Chronic 3

Hazard statement Code(s):

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H412 - Harmful to aquatic life with long lasting effects.

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

The product is dangerous to the environment as it is harmful to aquatic life with long lasting effects

**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.  
H412 - Harmful to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):

EUH208 - Contains Hexyl salicylate, 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

- P273 - Avoid release to the environment.
- 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.
- P337+P313 - If eye irritation persists: Get medical advice/attention.

Disposal

- P501 - Dispose of contents / container in accordance with local and national regulations.

Contains:

aqua, glycerin, tea-dodecylbenzenesulfate, C13-15 pareth-7, cocamide dea, sodium citrate, sodium laureth sulfate, parfum, mea-borate, triethanolamine, diethanolamine, coco glucoside, hexyl salicylate, benzyl salicylate, coumarin, dimethicone, subtilisin,  $\alpha$ -amylase, steareth-21, lipase, cellulase, methylchloroisothiazolinone, methylisothiazolinone, CI74180, acid yellow 23.

Contains (EC Reg. 648/2004):

5% < 15% Anionic surfactants, < 5% Non-ionic surfactants, Perfumes, Enzymes, benzyl salicylate, coumarin, methylchloroisothiazolinone, methylisothiazolinone

Content of VOC ready to use condition: 0,06 %

UFI: QDS1-E02P-900T-AMFH

**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

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	$\geq 1 < 5\%$	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Irrit. 2, H319 %C $\leq 10$ ; Eye Dam. 1, H318 %C $> 10$ ; 1 1 ATE oral $> 300,0$ mg/kg	ND	157627-86-6	ND	ND
Coconut diethanolamide	$\geq 1 < 3,00\%$	Skin Irrit. 2, H315; Eye Dam. 1, H318 ATE oral = 5.000,0 mg/kg	ND	68603-42-9	271-657-0	ND
2,2',2"-nitrilotriethanol	$\geq 0,1 < 1\%$	Eye Irrit. 2, H319 ATE oral = 5.000,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	102-71-6	203-049-8	01-2119486 428-31-xxxx
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
Hexyl salicylate - FEMA 0	$\geq 0,1 < 1,00\%$	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 1 ATE oral = 5.000,0 mg/kg ATE dermal = 5.000,0	ND	6259-76-3	228-408-6	01-2119638 275-36-000 2

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		mg/kg				
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 ATE oral = 1.800,0 mg/kg ATE inhal = 0,1mg/l/4 h	647-012-00-8	9014-01-1	232-752-2	01-2119480 434-38
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-h examethyl-2-naphthyl)ethan-1-on e - FEMA 0	< 0,1%	Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 10 10 ATE oral = 920,0 mg/kg ATE dermal = 7.940,0 mg/kg	ND	1506-02-1	216-133-4	01-2119539 433-40-000 0
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, CO<sub>2</sub>, 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 gloves and protective clothing

6.1.2 For emergency responders:

Wear 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',2"-nitrilotriethanol:  
TWA: 5 from ACGIH (TLV) [United States] [2001]

Subtilisin:  
ACGIH TLV: Ceiling: 0.00006 mg/m<sup>3</sup> Ceiling (as crystalline active enzyme, listed under Subtilisins)  
Belgium: 0.00006 mg/m<sup>3</sup> Maximum Limit Value (8 hours)  
Denmark: Ceiling: 0.00006 mg/m<sup>3</sup>  
Ireland: TWA: 0.00006 mg/m<sup>3</sup> STEL: 0.00006 mg/m<sup>3</sup>  
Netherlands: Ceiling: 0.00006 mg/m<sup>3</sup>

Norway: 0.00006 mg/m<sup>3</sup> Ceiling  
Portugal: Ceiling: 0.00006 mg/m<sup>3</sup>  
Spain: VLA-EC: 0.00006 mg/m<sup>3</sup>  
Sweden: 1 glycineunit/m<sup>3</sup> LLV 3 glycineunit/m<sup>3</sup> LLV  
Switzerland: STEL: 0.00006 mg/m<sup>3</sup>  
Germany: = 1 glycineunit/m<sup>3</sup> LLV = 3 glycineunit/m<sup>3</sup> LLV  
United Kingdom: 0.00004 mg/m<sup>3</sup> TWA

- Substance: Coconut diethanolamide

**DNEL**

Systemic effects Long term Workers inhalation = 73,4 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 4,16 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 21,73 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers dermal = 2,5 (mg/kg bw/day)  
Systemic effects Long term Consumers oral = 6,25 (mg/kg bw/day)  
Local effects Long term Workers dermal = 0,09 (mg/kg bw/day)  
Local effects Long term Consumers dermal = 0,0562 (mg/kg bw/day)

**PNEC**

Sweet water = 0,007 (mg/l)  
sediment Sweet water = 0,195 (mg/kg/sediment)  
Sea water = 0,001 (mg/l)  
sediment Sea water = 0,019 (mg/kg/sediment)  
intermittent emissions = 0,024 (mg/l)  
STP = 830 (mg/l)  
ground = 0,035 (mg/kg ground)

- Substance: 2,2',2''-nitrilotriethanol

**DNEL**

Systemic effects Long term Workers inhalation = 5 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 6,3 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 1,25 (mg/m<sup>3</sup>)  
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/m<sup>3</sup>)  
Local effects Long term Consumers inhalation = 1,25 (mg/m<sup>3</sup>)

**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)  
intermittent emissions = 5,12 (mg/l)  
STP = 10 (mg/l)  
ground = 0,15 (mg/kg ground)

- Substance: 2-aminoethanol, monoester with boric acid

**DNEL**

Systemic effects Long term Workers inhalation = 5,9 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 3,3 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 1,4 (mg/m<sup>3</sup>)  
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: Hexyl salicylate

DNEL

Systemic effects Long term Workers inhalation = 0,79 (mg/m<sup>3</sup>)

Systemic effects Long term Workers dermal = 2083 (mg/kg bw/day)

Systemic effects Short term Workers inhalation = 0,79 (mg/m<sup>3</sup>)

Systemic effects Short term Workers dermal = 2083 (mg/kg bw/day)

- 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/m<sup>3</sup>)

Local effects Long term Consumers inhalation = 0,000015 (mg/m<sup>3</sup>)

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)

## 8.2. Exposure controls

Appropriate 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	Purple	
Odour	Characteristic	
Odour threshold	not determined	
Melting point/freezing point	not determined	
Boiling point or initial boiling point and boiling range	not determined	
Flammability	irrelevant	
Lower and upper explosion limit	not determined	
Flash point	> 60 °C	ASTM D92
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
pH	7 - 8 @ 1 %	
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	1.02 - 1,07 g/cm3	
Relative vapour density	not determined	
Particle characteristics	irrelevant	

### 9.2. Other information

### **9.2.1 Information with regard to physical hazard classes**

No data available.

### **9.2.2 Other safety characteristics**

Content of VOC ready to use condition: 0,06 %

## **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 = 16.666,7 mg/kg

ATE(mix) dermal =  $\infty$

ATE(mix) inhal =  $\infty$

(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

Coconut diethanolamide: 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

Coconut diethanolamide: Acute Irritation/Corrosion eyes

(d) respiratory/skin sensitisation: Coconut diethanolamide: Non-sensitizing

Subtilisin: Respiratory system: substance-sensitizing (human experience)

(e) germ cell mutagenicity: Subtilisin: No indication of mutagenic effects (OECD TG 471, 473, 476)

(f) carcinogenicity: Coconut diethanolamide: IARC Group 2B carcinogen-possible carcinogenic to humans

(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

Coconut diethanolamide:

Ingestion: oral rat LD50: > 2,000 mg/kg

Eye contact: irritating to the eye (rabbit). Can cause irreversible damage to the eye.

Skin contact: moderately irritating for a single application (4 h-rabbit)

Readily biodegradable in accordance with the criteria of Directive 67/548 and subsequent modifications.

LD50 (rat) Oral (mg/kg body weight) = 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): cytogenetic 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

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

Hexyl salicylate:

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

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 5000

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

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one:

LD 50 ORAL / RAT ( mg /Kg) : 920

LD50 DERMAL/RAT( mg /Kg) : 7940

LD50 (rat) Oral (mg/kg body weight) = 920

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 7940

## 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

Coconut diethanolamide:

Acute/prolonged toxicity to fish: (83d) 2.52 mg/l (brachydanio rerio)

Acute toxicity to Aquatic Invertebrates: EC50 (12:0 am) 2.8 mg/l (daphnia Magna)

Primary: Biodegradability > 90% (OECD)

Easy Biodegradability: 60% > (manometric Tests, O2 consumption)

Theoretical O2 demand (thod) 2.52 mg O2/mg.

Chemical O2 demand (COD): 2.51 mg O2/mg.

C(E)L50 (mg/l) = 2,39

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

**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

**Subtilisin:**

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

**1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one:**

Fathead minnow *Pimephales promelas* LC50 = 0.100

Marine copepod *Acartia tonsa* 48-h, marine, mortality LC50 = 0.71

C(E)L50 (mg/l) = 0,1 10

10

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

The product is dangerous for the environment as it is toxic for aquatic organisms following acute exposure.

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

**12.2. Persistence and degradability**

Related to contained substances:

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:

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**

No data available.

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**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. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

**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**

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: 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 4.1. Description of first aid measures, 8.1. Control parameters, 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, 13.1. Waste treatment methods, 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.  
H317 = May cause an allergic skin reaction.  
H400 = Very toxic to aquatic life.  
H410 = Very toxic to aquatic life with long lasting effects.  
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.  
H330 = Fatal if inhaled.

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  
H412 - Harmful to aquatic life with long lasting effects. 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.