

## **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: KUY0-N0P4-Q008-4YT2

### **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](mailto:info@tintolav.com) - Sito internet: [www.tintolav.com](http://www.tintolav.com)

Email tecnico competente: [a.conedera@tintolav.com](mailto: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.

### **2.2. 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 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% Dye, enzymes, perfumes, Miscela di: 5-cloro-2-metil-2H-isotiazol-3-one [EC no. 247-500-7]; 2-metil-2H-isotiazol-3-one [EC no. 220-239-6] (3:1), non-ionic surfactants, Citronello, a-Hexylcinnamaldehyde, Benzyl salicylate

For professional use only

UFI: KUY0-N0P4-Q008-4YT2

**2.3. Other hazards**

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 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

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 = 1.653,0 mg/kg ATE dermal = 4.199,0 mg/kg	ND	27323-41-7	248-406-9	NR
Alcohols, C13-15, branched and linear, ethoxylated	>= 1 < 5%	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Irrit. 2, H319 %C <=10; Eye Dam. 1, H318 %C	ND	157627-86-6	ND	NR

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
		>10; 1 1 ATE oral = 300,0 mg/kg				
2-aminoethanol, monoester with boric acid	>= 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	NR
2,2',2"-nitrilotriethanol	>= 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

## 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 eye irritation persists: Get medical advice/attention.

## 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 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.

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]

- 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: 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)

**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 checked before use. Use a technique suitable for removing gloves (without touching the outer surface of the glove) to avoid the skin contact with this product. Dispose of contaminated gloves after use in accordance with current legislation and good laboratory practices. Wash and dry your hands. The selected protective gloves have to satisfy the requirements of EU directive 89/686 / EEC e the resulting EN 374 standards.

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.

For the choice of the type of gloves to use consult the supplier / manufacturer of the gloves.

Observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(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:

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

**SECTION 9. Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
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Physical and chemical properties	Value	Determination method
Appearance	Liquid	
Colour	Blue	
Odour	characteristic	
Odour threshold	not determined	
pH	8.5 - 9.5	
Melting point/freezing point	< 4 °C	
Initial boiling point and boiling range	not determined	
Flash point	> 65 °C	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	not determined	
Upper/lower flammability or explosive limits	not determined	
Vapour pressure	not determined	
Vapour density	not determined	
Relative density	1,100 - 1,150 gr/cm <sup>3</sup>	
Solubility	Completely soluble in water	
Water solubility	Completely soluble in water	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	

## 9.2. Other information

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

## 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 = 8.333,3 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 sensitisation: based on available data, the classification criteria are not met.

(e) germ cell mutagenicity: based on available data, the classification criteria are not met.

(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: based on available data, the classification criteria are not met.

(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-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

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 irritaiton with burning pain, itching, and redness. May be absorbed through the skin amd 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, vomitig, 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

## 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-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

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

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.

### **12.3. Bioaccumulative potential**

No data available.

### **12.4. Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

No PBT/vPvB ingredient is present

### **12.6. Endocrine disrupting properties**

No data available.

### **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**

No data available.

### **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: 1.1. Product identifier, 1.2. Relevant identified uses of the substance or mixture and uses advised against, 2.2. Label elements, 2.3. Other hazards, 4.1. Description of first aid measures, 4.3. Indication of any immediate medical attention and special treatment needed, 7.1. Precautions for safe handling, 8.1.

Control parameters, 8.2. Exposure controls, 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

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.

Classification based on data of all mixture components

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.

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