

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

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.

2.2. 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):
not applicable

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

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:

Dodecylbenzenesulphonic acid, compound with 2,2',2"-nitrilotriethanol (1:1). , Fatty alcohol ethoxylate

Contains (Reg.EC 648/2004):

5% < 15% anionic surfactants, < 5% Dye, perfumes, enzymes, non-ionic surfactants

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	Classification	Index	CAS	EINECS	REACH
Dodecylbenzenesulphonic acid, compound with 2,2',2"-nitrilotriethanol (1:1).	> 5 <= 10%	Skin Irrit. 2, H315; Eye Irrit. 2, H319		27323-41-7	248-406-9	
Fatty alcohol ethoxylate	> 1 <= 5%	Acute Tox. 4, H302; Eye Dam. 1, H318		64425-86-1		02-2119548 515-35-000 0
Subtilisin	> 0,1 <= 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
2,2',2"-nitrilotriethanol	> 0,1 <= 1%	Eye Irrit. 2, H319		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.

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.

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
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:
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

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

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
 When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)
 - (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
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Physical and chemical properties	Value	Determination method
Appearance	blue liquid	
Odour	characteristic	
Odour threshold	not determined	
pH	7 - 8 at 1%	
Melting point/freezing point	< 4 °C	
Initial boiling point and boiling range	100 °C	
Flash point	irrelevant	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	
Solubility	completely soluble in water	
Water solubility	not determined	
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

No data available.

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 toxicological effects

ATE(mix) oral = ∞
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
- (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 sensitization: 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

Fatty alcohol ethoxylate:
LD50 (rat) Oral (mg/kg body weight) = 3100

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

2,2',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

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

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

Fatty alcohol ethoxylate:

Ittiotossicit:

LC50 (96 h) 1-10 mg/l, *Brachydanio rerio*

Aquatic invertebrates:

EC50 (48 h) 1-10 mg/l *Daphnia magna*

Aquatic plants:

EC50 (72 h) 1-10 mg/l *Scenedesmus subspicatus*

Microorganisms/effects on activated sludge:

CE10 > 1,000 mg/l, activated sludge (DEV-L2)

Chronic toxic to aquatic invertebrates:

NOEC (21 d), 0.33 mg/l *Daphnia magna*

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

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

2,2',2"-nitrioltriethanol:

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:

Fatty alcohol ethoxylate:

Disposal considerations:

> = 90% the bismuth active substance (OECD guideline 303A)

60% > CO₂ formation of theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, c. 4-C)

Readily biodegradable (according to OECD criteria).

Subtilisin:

Rapidly biodegradable (OECD TG 301B)

12.3. Bioaccumulative potential

Related to contained substances:
Subtilisin:
Do not bio-accumulate

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. 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

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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

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.

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

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.
