

## Safety Data Sheet according to Reg. (EC) n.1907/2006 (REACH) - SOFT ENZIMATIC

Safety Data Sheet dated 7/2/2024, version 4

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name: **SOFT ENZIMATIC**  
Trade code: G10-003 / 004  
UFI: 77E2-A06R-H00M-4GUR

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

Recommended use:

Liquid detergent for textiles. For professional use.

Products categories: PC35 - washing and cleaning products. This category includes water and solvent based products.

Use at industrial sites (IS). Widespread use by professional workers (PW).

Uses advised against:

Do not use for purposes other than those indicated.

1.3. Details of the supplier of the safety data sheet

Company:

**G.B.M. ELETTROCHIMICA s.r.l.**

Via Fiumicino San Mauro, 120/130 - 47039 – Savignano Sul Rubicone (FC) Italy

tel +39 0541 930058

**e-mail:** [gbm@gbmprodottichimici.it](mailto:gbm@gbmprodottichimici.it)

**web site:** [www.gbmprodottichimici.it](http://www.gbmprodottichimici.it)

1.4. Emergency telephone number

+39 0541-930058

### SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Eye Dam. 1, H318 Causes serious eye damage.

Skin Sens. 1A, H317 May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing vapours.

P280 Wear protective gloves and eye/face protection.

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

P312 In case of malaise, contact a POISON CENTRE/doctor.

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P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container in accordance with applicable regulations.

**Special Provisions:**

None

**Contains**

Ethoxylated alcohol  
 Benzenesulphonic acid, sodium salts.  
 2-methylisothiazol-3(2H)-one

**Special provisions according to Annex XVII of REACH and subsequent amendments:**

None

**2.3. Other hazards**

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

**Other Hazards:**

No other hazards

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

N.A.

**3.2. Mixtures**












Ingredients according to EC Detergents Regulation 648/2004:

<5%: anionic surfactants, soaps, polycarboxylates, phosphonates.


















5-15%: non-ionic surfactants.

Other comp.: enzymes, perfume, butylphenyl methylpropional, hexyl cinnamal, 2-methyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3(2H)-one, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine, optically bleached.

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
$\geq 5\%$ - < 10%	Ethoxylated alcohol	CAS: 69011-36-5	 3.3/1 Eye Dam. 1 H318  3.1/4/Oral Acute Tox. 4 H302
$\geq 1\%$ - < 5%	Benzenesulphonic acid, sodium salts.	CAS: 68411-30-3 EC: 270-115-0 REACH No.: 01-2119489428-22-XXXX	 3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  4.1/C3 Aquatic Chronic 3 H412
$\geq 1\%$ - < 5%	Fatty acids, coco, potassium salt	CAS: 61789-30-8 EC: 263-049-9	 3.3/2 Eye Irrit. 2 H319  3.2/2 Skin Irrit. 2 H315
124 ppm	subtilisin	Index number: 647-012-00-8 CAS: 9014-01-1 EC: 232-752-2 REACH No.: 01-2119480434-	 3.1/4/Oral Acute Tox. 4 H302  3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318

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		38-XXXX	 3.4.1/1 Resp. Sens. 1 H334  3.8/3 STOT SE 3 H335  4.1/A1 Aquatic Acute 1 H400 M=1.  4.1/C2 Aquatic Chronic 2 H411 M=1.
37 ppm	2-methylisothiazol-3(2H)-one	Index number: 613-326-00-9 CAS: 2682-20-4 EC: 220-239-6 REACH No.: 01-2120764690-50-XXXX	 3.1/2/Inhal Acute Tox. 2 H330  3.1/3/Dermal Acute Tox. 3 H311  3.1/3/Oral Acute Tox. 3 H301  3.2/1B Skin Corr. 1B H314  3.3/1 Eye Dam. 1 H318  3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400 M=10.  4.1/C1 Aquatic Chronic 1 H410 M=1. EUH071 Specific Concentration Limits: C >= 0,0015%: Skin Sens. 1A H317
525 ppb	N, N-dimethylformamide; dimethyl formamide	Index number: 616-001-00-X CAS: 68-12-2 EC: 200-679-5 REACH No.: 01-2119475605-32-XXXX	 2.6/3 Flam. Liq. 3 H226  3.7/1B Repr. 1B H360  3.3/2 Eye Irrit. 2 H319  3.1/4/Dermal Acute Tox. 4 H312  3.1/4/Inhal Acute Tox. 4 H332

SVHC, PBT, vPvB, endocrine disruptor substances:

1 ppm N, N-dimethylformamide; dimethyl formamide

 REACH No.: 01-2119475605-32-XXXX, Index number: 616-001-00-X, CAS: 68-12-2,  
 EC: 200-679-5

SVHC

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#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

##### 4.2. Most important symptoms and effects, both acute and delayed

None

##### 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

##### 5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

##### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

##### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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- Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

**SECTION 7: Handling and storage**

- 7.1. Precautions for safe handling  
Avoid contact with skin and eyes, inhalation of vapours and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
See also section 8 for recommended protective equipment.  
Advice on general occupational hygiene:  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.
- 7.2. Conditions for safe storage, including any incompatibilities  
Store the product only in its original closed containers, in a cool, dry and well-ventilated areas at temperatures below 0 °C and not higher than 40 °C.  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
None in particular

**SECTION 8: Exposure controls/personal protection**

- 8.1. Control parameters  
subtilisin - CAS: 9014-01-1  
ACGIH - STEL: Ceiling 0.00006 mg/m<sup>3</sup> - Notes: N.A.  
N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2  
UE - TWA(8h): 15 mg/m<sup>3</sup>, 5 ppm - STEL: 30 mg/m<sup>3</sup>, 10 ppm - Notes: N.A.  
ACGIH - TWA(8h): 5 ppm - Notes: N.A.
- DNEL Exposure Limit Values**  
Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3  
Worker Professional: 85 mg/kg b.w./day - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
Worker Professional: 6 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Consumer: 42.5 mg/kg b.w./day - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
Consumer: 1.5 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Consumer: 0.425 mg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term, systemic effects
- subtilisin - CAS: 9014-01-1  
Worker Professional: 0.2 mg/kg - Exposure: Human Dermal - Frequency: Short Term, local effects  
Worker Professional: 60 ng/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Sensitisation (respiratory tract)

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- Consumer: 15 ng/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Sensitisation (respiratory tract)  
Consumer: 1.8 mg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity  
Consumer: 3.6 mg/kg b.w./day - Exposure: Human Oral - Frequency: Short Term, systemic effects - Endpoint: Repeated dose toxicity
- 2-methylisothiazol-3(2H)-one - CAS: 2682-20-4  
Worker Professional: 21 µg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Irritation (respiratory tract)  
Worker Professional: 43 µg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Irritation (respiratory tract)  
Consumer: 21 µg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Irritation (respiratory tract)  
Consumer: 43 µg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Irritation (respiratory tract)  
Consumer: 27 µg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity  
Consumer: 53 µg/kg b.w./day - Exposure: Human Oral - Frequency: Short Term, systemic effects - Endpoint: Repeated dose toxicity
- N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2  
Worker Professional: 6 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA  
Worker Professional: 1.1 mg/kg b.w./day - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Endpoint: Developmental/teratogenic toxicity - Notes: ECHA  
Consumer: 1.1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA  
Consumer: 0.16 mg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA
- PNEC Exposure Limit Values**
- Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3  
Target: Fresh Water - Value: 0.268 mg/l  
Target: Marine water - Value: 0.0268 mg/l  
Target: Intermittent release - Value: 0.0167 mg/l  
Target: Sewage treatment plant - Value: 3.43 mg/l  
Target: Freshwater sediments - Value: 8.1 mg/kg dry weight  
Target: Marine water sediments - Value: 6.8 mg/kg dry weight  
Target: Soil - Value: 35 mg/kg dry weight
- subtilisin - CAS: 9014-01-1  
Target: Fresh Water - Value: 0.06 µg/L  
Target: Marine water - Value: 0.006 µg/L  
Target: Sewage treatment plant - Value: 65000 µg/L
- 2-methylisothiazol-3(2H)-one - CAS: 2682-20-4  
Target: Fresh Water - Value: 3.39 µg/L  
Target: Intermittent release (fresh water) - Value: 3.39 µg/L  
Target: Marine water - Value: 3.39 µg/L  
Target: Intermittent release (seawater) - Value: 3.39 µg/L  
Target: Sewage treatment plant - Value: 230 µg/L  
Target: Soil - Value: 47.1 mg/kg dry weight
- N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2  
Target: Sewage treatment plant - Value: 44 mg/l - Notes: ECHA  
Target: Marine water sediments - Value: 111 mg/kg dry weight - Notes: ECHA  
Target: Freshwater sediments - Value: 11.1 mg/kg dry weight - Notes: ECHA

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**8.2. Exposure controls**
**Eye protection:**

Eye glasses with side protection.

**Protection for skin:**

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

**Protection for hands:**

Use protective gloves resistant to chemicals. The choice of hand PPE must be made on the basis of its better resistance to chemical agents, taking into account the results of tests obtained in accordance with EN 374. Because of the great diversity of types, you should follow the instructions of the manufacturers. Suitable materials for short contact (recommended: at least protection index 2, corresponding to &gt; 30 minutes permeation time according to EN 374). Butyl rubber - 0.7 mm thick. Suitable materials for direct and prolonged contact (recommended: protection index 6, corresponding &gt; 460 minutes of permeation time according to EN 374) nitro-caoutchouc (NBR) - 0.4 mm thick.

**Respiratory protection:**

Not needed for normal use.

**Thermal Hazards:**

None

**Environmental exposure controls:**

None

**Appropriate engineering controls:**

None

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

<b>Properties</b>	<b>Value</b>	<b>Method:</b>	<b>Notes</b>
Physical state:	Liquid	--	--
Colour:	Light blue	--	--
Odour:	CHARACTERISTIC FRAGRANCE NOTE	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	>100°C	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	NOT FLAMABLE/> 100 ° C	--	--
Auto-ignition temperature:	NOT AUTO FLAMMABLE	--	--
Decomposition temperature:	N.D.	--	--
pH:	9,5	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	COMPLETE	--	--



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Solubility in oil:	INSOLUBLE	--	--
Partition coefficient n-octanol/water (log value):	N.D.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	1.03 ± 0.05 kg/l	--	--
Relative vapour density:	N.A.	--	--

Particle characteristics:

Particle size:	N.A.	--	--
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9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	ABSENT	--	--
Miscibility:	MISCIBLE	--	--
Conductivity:	N.D.	--	--
Viscosity:	N.D.	--	--
Oxidizing properties:	ABSENT	--	--
Fat Solubility:	N.D.	--	--

### SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

The product is stable under normal conditions of use and storage.

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, are not known hazardous decomposition products.

### SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

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a) acute toxicity

Not classified

No data available for the product

b) skin corrosion/irritation

Not classified

No data available for the product

c) serious eye damage/irritation

The product is classified: Eye Dam. 1 H318

d) respiratory or skin sensitisation

The product is classified: Skin Sens. 1A H317

e) germ cell mutagenicity

Not classified



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- No data available for the product
  - f) carcinogenicity
    - Not classified
    - No data available for the product
  - g) reproductive toxicity
    - Not classified
    - No data available for the product
  - h) STOT-single exposure
    - Not classified
    - No data available for the product
  - i) STOT-repeated exposure
    - Not classified
    - No data available for the product
  - j) aspiration hazard
    - Not classified
    - No data available for the product
- Toxicological information of the main substances found in the product:
- Ethoxylated alcohol - CAS: 69011-36-5
- a) acute toxicity:
    - Test: LD50 - Route: Oral - Species: Rat > 300-2000 mg/kg bw
  - c) serious eye damage/irritation:
    - Route: Eyes - Species: Rabbit Positive
- Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3
- a) acute toxicity:
    - Test: LD50 - Route: Oral - Species: Rat = 1080 mg/kg - Harmful if ingested
    - Route: Inhalation
    - Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Based on available data, the classification criteria are not met
  - b) skin corrosion/irritation:
    - Test: Skin Irritant - Species: Rabbit Yes - Causes skin irritation
  - c) serious eye damage/irritation:
    - Test: Eye Corrosive - Species: Rabbit Yes - Causes serious eye damage
  - d) respiratory or skin sensitisation:
    - Test: Maximisation Test - Species: Guinea pig Negative - Based on available data, the classification criteria are not met
  - e) germ cell mutagenicity:
    - Test: In vitro genotoxicity Negative - Based on available data, the classification criteria are not met
    - Test: In vivo genotoxicity Negative - Based on available data, the classification criteria are not met
  - f) carcinogenicity:
  - g) reproductive toxicity:
    - Based on available data, the classification criteria are not met
    - Test: Teratogenicity - Based on available data, the classification criteria are not met
  - h) STOT-single exposure:
    - Negative - Based on available data, the classification criteria are not met
  - i) STOT-repeated exposure:
    - Negative - Based on available data, the classification criteria are not met
    - Test: NOAEL - Route: Oral - Species: Rat = 125 mg/kg di b.w./day - Duration: 28d
    - Test: NOAEL - Species: Rat = 40 mg/kg di b.w./day - Duration: 6M
    - Test: NOAEL - Species: Rat = 85 mg/kg di b.w./day - Duration: 9M
- Toxicological kinetics, metabolism and distribution information:  
Fatty acids, coco, potassium salt - CAS: 61789-30-8

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- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
- b) skin corrosion/irritation:  
Positive - Source: N.A. - Causes skin irritation
- c) serious eye damage/irritation:  
Positive - Source: N.A. - Causes serious eye damage  
subtilisin - CAS: 9014-01-1
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 1800 mg/kg - Source: N.A.
- b) skin corrosion/irritation:  
Test: Skin Irritant Positive - Slightly irritating
- c) serious eye damage/irritation:  
Test: Eye Irritant Positive - Slightly irritating
- d) respiratory or skin sensitisation:  
Test: Respiratory Sensitization Positive - May cause allergic or asthmatic symptoms or breathing difficulties if inhaled
- h) STOT-single exposure:  
Test: Respiratory Tract Irritant - May irritate the respiratory tract  
2-methylisothiazol-3(2H)-one - CAS: 2682-20-4
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 120 mg/kg bw  
Test: LD50 - Route: Skin - Species: Rat = 242 mg/kg bw  
Test: LC50 - Route: Inhalation of dust and fog - Species: Rat = 0.11 mg/l - Duration: 4h
- b) skin corrosion/irritation:  
Test: Skin Corrosive Positive - Causes severe skin burns
- c) serious eye damage/irritation:  
Test: Eye Corrosive Positive - Causes serious eye damage
- d) respiratory or skin sensitisation:  
Test: Skin Sensitization Positive - May cause sensitisation in contact with skin
- i) STOT-repeated exposure:  
Test: NOAEL - Route: Oral - Species: Rat = 19 mg/kg di b.w./day  
N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2
- f) carcinogenicity:  
Route: Inhalation Negative - Based on available data, the classification criteria are not met  
Test: Teratogenicity Positive - In animal experiments the substance gave teratogenic effect
- g) reproductive toxicity:  
Test: Reproductive Toxicity Negative - Based on available data, the classification criteria are not met
- i) STOT-repeated exposure:  
Route: Oral Positive - Repeated exposure to large quantities can cause specific damage to the body. It damages the liver

## 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$ **SECTION 12: Ecological information**

## 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

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Not classified for environmental hazards

Based on available data, the classification criteria are not met

Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1-10 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 1-10 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC (196d) - Species: Fish > 0.1-1 mg/l

Endpoint: NOEC (21d) - Species: Daphnia > 1-10 mg/l

d) Terrestrial toxicity:

Endpoint: EC10 (28D) = 71.7 mg/kg

Endpoint: EC10 = 107.6 mg/kg

Endpoint: NOEC - Species: Terrestrial plants = 100 mg/kg

Endpoint: EC10 - Species: Terrestrial plants = 86 mg/kg

Endpoint: NOEC - Species: Terrestrial plants = 52 mg/kg

e) Plant toxicity:

Endpoint: EC50 - Species: Algae > 10-100 mg/l - Duration h: 72

Endpoint: NOEC (28D) > 4 mg/l

Endpoint: EC50 > 1-10 mg/l - Duration h: 168

g) Toxicity to aquatic invertebrates:

Endpoint: NOEC (32d) - Species: Aquatic invertebrates > 1-10 mg/l

Fatty acids, coco, potassium salt - CAS: 61789-30-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 1 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 1 mg/l - Duration h: 48

subtilisin - CAS: 9014-01-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 586 ppm - Duration h: 48

Endpoint: LC50 - Species: Fish = 8.2 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae = 830 ppm - Duration h: 72

2-methylisothiazol-3(2H)-one - CAS: 2682-20-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 5.45 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 0.0695 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: EC10 - Species: Fish = 4.93 mg/l

Endpoint: EC10 - Species: Aquatic invertebrates = 44.2 µg/L

N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 7.1 GL - Duration h: 96

Endpoint: EC50 - Species: Aquatic invertebrates = 13.1 GL - Duration h: 48

Endpoint: EC50 - Species: Algae = 1 GL - Duration h: 72

Endpoint: EC50 - Species: Aquatic micro-organisms = 12.3 GL

b) Aquatic chronic toxicity:

Endpoint: NOEC (21d) - Species: Aquatic invertebrates = 1.5 GL

12.2. Persistence and degradability

None

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Biodegradability: The product contains only readily biodegradable surfactants meet the criteria laid down in Regulation detergents EU (EC/648/2004).

Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3

Biodegradability: Persistence - Duration: 28d - %: 60

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- Fatty acids, coco, potassium salt - CAS: 61789-30-8
  - Biodegradability: Biodegradable
- subtilisin - CAS: 9014-01-1
  - Biodegradability: Readily biodegradable
- 2-methylisothiazol-3(2H)-one - CAS: 2682-20-4
  - Biodegradability: Non-readily biodegradable - %: 100
- N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2
  - Biodegradability: Persistence
- 12.3. Bioaccumulative potential
  - Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3
    - Bioaccumulation: Does not accumulate significantly in organisms - Test: BCF -
    - Bioconcentration factor 2-1000 - Duration: 192h
  - Fatty acids, coco, potassium salt - CAS: 61789-30-8
    - Bioaccumulation: Not bioaccumulative
  - subtilisin - CAS: 9014-01-1
    - Bioaccumulation: Not bioaccumulative
    - Bioaccumulation: Partition coefficient n-octanol/water - Test: Log Pow
  - N, N-dimethylformamide; dimethyl formamide - CAS: 68-12-2
    - Bioaccumulation: Not bioaccumulative
- 12.4. Mobility in soil
  - Benzenesulphonic acid, sodium salts. - CAS: 68411-30-3
    - Mobility in soil: 9
- 12.5. Results of PBT and vPvB assessment
  - vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties
  - No endocrine disruptor substances present in concentration  $\geq 0.1\%$
- 12.7. Other adverse effects
  - None

**SECTION 13: Disposal considerations**

- 13.1. Waste treatment methods
  - Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

**SECTION 14: Transport information**

- 14.1. UN number or ID number
  - Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name
  - N.A.
- 14.3. Transport hazard class(es)
  - N.A.
- 14.4. Packing group
  - N.A.
- 14.5. Environmental hazards
  - ADN-Environmentally hazardous in tank-vessels:
    - N.A.
- 14.6. Special precautions for user
  - N.A.
- 14.7. Maritime transport in bulk according to IMO instruments
  - N.A.

**SECTION 15: Regulatory information**

### Safety Data Sheet according to Reg. (EC) n.1907/2006 (REACH) - SOFT ENZIMATIC

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
  - Dir. 2000/39/EC (Occupational exposure limit values)
  - Regulation (EC) n. 1907/2006 (REACH)
  - Regulation (EC) n. 1272/2008 (CLP)
  - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
  - Regulation (EU) n. 2020/878
  - Regulation (EU) n. 286/2011 (ATP 2 CLP)
  - Regulation (EU) n. 618/2012 (ATP 3 CLP)
  - Regulation (EU) n. 487/2013 (ATP 4 CLP)
  - Regulation (EU) n. 944/2013 (ATP 5 CLP)
  - Regulation (EU) n. 605/2014 (ATP 6 CLP)
  - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
  - Regulation (EU) n. 2016/918 (ATP 8 CLP)
  - Regulation (EU) n. 2016/1179 (ATP 9 CLP)
  - Regulation (EU) n. 2017/776 (ATP 10 CLP)
  - Regulation (EU) n. 2018/669 (ATP 11 CLP)
  - Regulation (EU) n. 2018/1480 (ATP 13 CLP)
  - Regulation (EU) n. 2019/521 (ATP 12 CLP)
  - Regulation (EU) n. 2020/217 (ATP 14 CLP)
  - Regulation (EU) n. 2020/1182 (ATP 15 CLP)
  - Regulation (EU) n. 2021/643 (ATP 16 CLP)
  - Regulation (EU) n. 2021/849 (ATP 17 CLP)
  - Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 30

Restriction 72

Restriction 75

Restriction 76

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

SVHC Substances:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

N, N-dimethylformamide; dimethyl formamide

Toxic to reproduction

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

#### SECTION 16: Other information

Full text of phrases referred to in Section 3:

H226 Flammable liquid and vapour.

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H360 May damage fertility or the unborn child.  
 H319 Causes serious eye irritation.  
 H312 Harmful in contact with skin.  
 H332 Harmful if inhaled.  
 H318 Causes serious eye damage.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H412 Harmful to aquatic life with long lasting effects.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.  
 H400 Very toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.  
 H330 Fatal if inhaled.  
 H311 Toxic in contact with skin.  
 H301 Toxic if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H410 Very toxic to aquatic life with long lasting effects.  
 EUH071 Corrosive to the respiratory tract.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
Acute Tox. 3	3.1/3/Dermal	Acute toxicity (dermal), Category 3
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Resp. Sens. 1	3.4.1/1	Respiratory Sensitisation, Category 1
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

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	Classification procedure
Eye Dam. 1, H318	Calculation method
Skin Sens. 1A, H317	Calculation method

**Safety Data Sheet according to Reg. (EC) n.1907/2006 (REACH) -  
SOFT ENZIMATIC**

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.