Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code: **CIMBALI_ECOJETSAN (610004159)**
Product name **ECO JETSAN**

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

Intended use **Pre-wash detergent for professional use.**
Uses advised against: Uses other than those stated.

1.3. Details of the supplier of the safety data sheet

Name **Cimbali Group S.P.A.**

Full address **Via A. Manzoni, 17**
District and Country **20082 - Binasco (MI)**
ITALY

tel. +39 02 90049406

fax +39 02 900049336

e-mail address of the competent person

responsible for the Safety Data Sheet infosds@gruppocimbali.com

1.4. Emergency telephone number

For urgent inquiries refer to

Malta 112
Ireland Healthcare Professionals: +353 (01) 809 2566 (24 hour service)

GRUPPO CIMBALI SPA Company emergency telephone number: +39 02 90049406 - technical support only (08-18)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: **Danger**

Hazard statements:

H318	Causes serious eye damage.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor.

Contains: 2-ETHYLHEXANOL ETHOXYLATED
SODIUM ETASULFATE

Ingredients according to Regulation (EC) No. 648/2004

Less than 5%	Anionic surfactants, Soap
5% or over but less than 15%	Non-ionic surfactants

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.
The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification (EC) 1272/2008 (CLP)**
2-ETHYLHEXANOL ETHOXYLATED		
INDEX EC - CAS 26468-86-0	5 ≤ x ≤ 8	Eye Dam. 1 H318
TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE		
INDEX - EC 257-573-7 CAS 51981-21-6 REACH Reg. 01-2119493601-38-xxxx	3 ≤ x ≤ 4	Met. Corr. 1 H290
SODIUM ETASULFATE		
INDEX - EC 204-812-8 CAS 126-92-1 REACH Reg. 01-2119971586-23-XXXX	1 ≤ x ≤ 2.5	Eye Dam. 1 H318, Skin Irrit. 2 H315 *Eye Irrit. 2 H319 10% ≤ C < 20%:* *Eye Dam. 1 H318 C ≥ 20%:*
SODIUM SILICATE*		
INDEX - EC 215-687-4 CAS 1344-09-8 REACH Reg. 01-2119448725-31	1 ≤ x ≤ 2.5	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335

* The molar ratio (MR) of Silicic acid, sodium salt declared by the supplier is as follows: 2.6 < MR =< 3.2, with a silica (SiO_2) concentration > 72% and a sodium oxide (Na_2O) concentration < 28%.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.
PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Treat symptomatically.
In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
Direct water jets.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products, including:
Carbon monoxide (CO).
Carbon dioxide (CO2).
Nitrogen oxides (NOx).

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Wear appropriate respirator when ventilation is inadequate.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Do not breathe mist/vapour. Avoid leakage of the product into the environment.
Non-emergency personnel must follow the appropriate internal procedures in case of accidental release.

6.1.2 For emergency responders
Block the leakage if there is no hazard. Evacuate unprotected and untrained personnel from hazard area. Wear suitable protective equipment. (see Section 8 of this Safety data sheet)
Follow the appropriate internal procedures in case of accidental release.
Keep fumes and vapours under control. Isolate hazard area and deny entry. Ventilate closed spaces before entering. Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.
Storage temperature: store at room temperature

7.3. Specific end use(s)

No use other than as indicated in section 1.2 of this safety data sheet

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	9,45	mg/l
Normal value in marine water	0,945	mg/l
Normal value of STP microorganisms	41,2	mg/l
Normal value for the food chain (secondary poisoning)	67	mg/kg
Normal value for the terrestrial compartment	0,5	mg/kg/d
Health - Derived no-effect level - DNEL / DMEL		
Effects on	Effects on	

	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,5 mg/kg bw/d				
Inhalation				1,8 mg/m3				7,3 mg/m3
Skin				7500 mg/kg bw/d				15000 mg/kg bw/d

SODIUM ETASULFATE

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,136	mg/l
Normal value in marine water	0,014	mg/l
Normal value for fresh water sediment	1,5	mg/kg/d
Normal value for marine water sediment	0,15	mg/kg/d
Normal value for water, intermittent release	4,83	mg/l
Normal value of STP microorganisms	1,35	mg/l
Normal value for the terrestrial compartment	0,22	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				24 mg/kg bw/d				
Inhalation			VND	85 mg/m3			VND	285 mg/m3
Skin			VND	2440 mg/kg bw/d			VND	4060 mg/kg bw/d

SODIUM SILICATE

Predicted no-effect concentration - PNEC		
Normal value in fresh water	7,5	mg/l
Normal value in marine water	1	mg/l
Normal value for water, intermittent release	7,5	mg/l
Normal value of STP microorganisms	348	mg/l
Normal value for the food chain (secondary poisoning)	348	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	5,61 mg/m3
Skin							VND	1,59 mg/kg/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

Recommended monitoring practices
The reference European Standards are:
- UNI EN 689 standard "Guide to the assessment of exposure by inhalation to chemical compounds for the purpose of comparison with the limit values and measurement strategy";
- UNI EN 482 standard "general requirements for the performance of chemical agent measurement procedures".

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired

through effective local aspiration.
When choosing personal protective equipment, ask yourtechnical equipment supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).

Recommended materials:
Natural rubber, Nitrile/butadiene rubber (nitrile or NBR), Neoprene, Polyvinyl chloride (PVC or vinyl).

Protection class: 6 (permeation time greater than 480 minutes according to EN 374).

Recommended material thickness: When identifying the relevant material and thickness to be used, it is highly recommended to consult directly with the PPE manufacturer in order to assess the actual protection on the basis of use and duration of use.
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

THERMAL HAZARDS
Based on the use described in sect. 1.2, protective gloves are not required for heat and/or flame hazards.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	light blue	
Odour	odourless	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	Non-flammable as it contains no flammable components	
Lower explosive limit	Non-flammable as it contains no flammable components	
Upper explosive limit	Non-flammable as it contains no flammable components	
Flash point	not available	
Auto-ignition temperature	not available	

Decomposition temperature	not available
pH	11,1
Kinematic viscosity	not available
Solubility	Water-soluble
Partition coefficient: n-octanol/water	not available, see section 12 for individual substances
Vapour pressure	not available
Density and/or relative density	1,07 g/ml
Relative vapour density	not available
Particle characteristics	not applicable on the basis of physical state

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Corrosive to metals

Corrosive to metals	Remark: The mixture is not considered corrosive to metals, as the corrosion rate against steel and aluminium was negligible (Test report no.: 23LA02094 of 15/01/2024)

9.2.2. Other safety characteristics

Not available.

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Under normal conditions of use and storage, no hazardous reactions are to be expected. However, avoid contact with incompatible materials.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials

Light metals, Strong oxidizing agents, Strong acid, sugar residues.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
LD50 (Oral) > 2000 mg/kg Rat - EC. B.1
LD50 (Dermal) > 2000 mg/kg Rat - OECD 402
LC50 (Inhalation) > 42 mg/l/4h Rat - OECD 403

SODIUM ETASULFATE
Method: equivalent or similar to OECD 401
Reliability (Klimisch score): 2
Species: Rat (Tif RAI f; Male / Female)
Routes of exposure: oral
Results: LD50 = 2840 mg / kg body weight
Method: OECD 402 - read across
Reliability (Klimisch score): 2
Species: Rat (Wistar; Male / Female)
Routes of exposure: dermal
Results: LD50> 2000 mg / kg body weight

SODIUM SILICATE
Method: equivalent or similar OECD 401
Reliability (Klimisch score): 2
Material: molar ratio = 3.27
Species: Rat (Wistar, male/female)
Routes of exposure: oral
Results: 5150 mg/kg
Bibliographic reference: SIDS Initial Assessment Report for SIAM 18 Paris, France 20-23 April, 2004
Method: According to EPA OPPTS 870.1200
Reliability (Klimisch score): 1
Species: Rat (Albino Sprague-Dawley, male/female)
Routes of exposure: dermal
Results: > 5000 mg/kg
Method: According to EPA OPPTS 870.1300
Reliability (Klimisch score): 1
Species: Rat (Albino Sprague-Dawley, male/female)

Routes of exposure: inhalation (vapours)
Results: > 2.06 mg/L/ 4h.

SKIN CORROSION / IRRITATION
Does not meet the classification criteria for this hazard class

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Not irritating to the skin (rabbit - OECD TG 404).

SODIUM ETASULFATE
Method: OECD 404
Reliability (Klimisch score): 2
Species: Rabbit (New Zealand White)
Routes of exposure: dermal
Results: irritating

SODIUM SILICATE
Skin corrosion/irritation:
Method: according to OECD 404
Reliability (Klimisch score): 2
Material: molar ratio = 2.4
Species: Rabbit (New Zealand White)
Routes of exposure: dermal
Results: irritating.
Bibliographic reference: SIDS Initial Assessment Report for SIAM 18 Paris, France 20-23 April, 2004.

SERIOUS EYE DAMAGE / IRRITATION
Causes serious eye damage

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Not irritating to the eyes (Rabbit - OECD TG 405)

SODIUM ETASULFATE
Method: OECD 405
Reliability (Klimisch score): 2
Species: Rabbit (New Zealand White)
Routes of exposure: ocular
Results: irritating

2-ETHYLHEXANOL ETHOXYLATED
Causes serious eye damage, (Source: Information available in the supplier's SDS).

SODIUM SILICATE
Serious eye damage/eye irritation:
Method: in vivo test on rabbit ocular tissue
Reliability (Klimisch score): 4
Species: rabbit
Results: moderately irritating
Bibliographic reference: York, M. et al. (1994).

RESPIRATORY OR SKIN SENSITISATION
Does not meet the classification criteria for this hazard class

SODIUM ETASULFATE
Method: equivalent or similar to OECD 429
Reliability (Klimisch score): 2
Species: Mouse (CBA; Female)
Routes of exposure: dermal
Results: not sensitizing to the skin.

SODIUM SILICATE

Respiratory or skin sensitization
Method: in vivo test according to OECD 429
Reliability (Klimisch score): 2
Species: mouse local lymph nodes (female)
Results: non-sensitizing
Reference: Karrow, N. A. et al., Am. J. Contact. Dermat. 13, 133-139 (2002).

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Not sensitizing to the skin (Guinea pig - OECD TG 406)

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
In vitro tests
Negative with and without metabolic activation - OECD Guideline 471 (Bacterial Reverse Mutation Assay)
In vivo tests
Not genotoxic under normal test conditions (mouse - OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test))

SODIUM ETASULFATE
Method: equivalent or similar to OECD 471 - in vitro test
Reliability (Klimisch score): 2
Species: S. typhimurium
Results: negative with and without metabolic activation

SODIUM SILICATE
Based on available literature data, the substance does not present mutagenic effects.

CARCINOGENICITY
Does not meet the classification criteria for this hazard class

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Test not available

SODIUM ETASULFATE
Method: equivalent or similar to OECD 453
Reliability (Klimisch score): 2
Species: Rat (Wistar; Male / Female)
Routes of exposure: oral
Results: Negative. NOAEL> 1125 mg / kg body weight / day

SODIUM SILICATE
Based on available literature data, the substance does not have carcinogenic effects.

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class

SODIUM ETASULFATE
Method: equivalent or similar to OECD 414
Reliability (Klimisch score): 2
Species: Rat (Wistar)
Routes of exposure: oral
Results: Negative

SODIUM SILICATE
Based on available literature data, the substance does not present reproductive toxicity effects.

Adverse effects on sexual function and fertility

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE

Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Reliability (Klimisch score): 1
Species: Male/Female Wistar rat
Routes of exposure: oral
Results: NOAEL F1 - F2: >= 15 000 ppm

Adverse effects on development of the offspring

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)
Reliability (Klimisch score): 1
Species: Rabbit (New Zealand White)
Routes of exposure: oral
Results: NOAEL (maternal toxicity): 75 mg/kg bw/day, NOAEL (fetal development): >= 300 mg/kg bw/day

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Based on available data, the substance does not present specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

SODIUM ETASULFATE
Based on available data, the substance has no specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class

SODIUM SILICATE
Irritating to the mucosa of the respiratory tract due to inhalation of alkaline dust particles.
Bibliographic reference: SIDS Initial Assessment Report for SIAM 18 Paris, France 20-23 April, 2004.

STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Based on available data, the substance does not present specific target organ toxicity effects upon repeated exposure and is not classified under the relevant CLP hazard class.

SODIUM ETASULFATE
Method: equivalent or similar to OECD 408
Reliability (Klimisch score): 2
Species: Rat (Wistar; Male / Female)
Routes of exposure: oral
Results: Negative. NOAEL = 488 mg / kg body weight / day

SODIUM SILICATE
Based on available literature data, the substance does not present specific toxicity effects for target organs following repeated exposure.

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE

LC50 - for Fish	> 100 mg/l/96h Oncorhynchus mykiss (OECD 203)
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Desmodesmus subspicatus (OECD 201)
LC10 for Fish	153 mg/l/9d Danio rerio (OECD 212)
Chronic NOEC for Crustacea	> 265,7 mg/l/21d Daphnia magna (OECD 211)

SODIUM ETASULFATE

LC50 - for Fish	> 100 mg/l/96h Danio rerio, OECD 203 (data based on similar substance)
EC50 - for Crustacea	483 mg/l/48h Daphnia magna, EU Method C.2
EC50 - for Algae / Aquatic Plants	> 511 mg/l/72h Desmodesmus subspicatus, EU Method C.3 (data based on similar substance)
Chronic NOEC for Crustacea	1,4 mg/l 21 d Daphnia magna, OECD TG 211, study in read across)

SODIUM SILICATE

LC50 - for Fish	1108 mg/l/96h Brachydanio rerio (OECD 203)
EC50 - for Crustacea	1700 mg/l/48h Daphnia magna (EU Method C.2)
EC50 - for Algae / Aquatic Plants	207 mg/l/72h Desmodesmus subspicatus (DIN 38412, Teil 9)

2-ETHYLHEXANOL ETHOXYLATED

Endpoint: LC50 - Species: Fish (Carassius Auratus) > 100 mg/l - Time h: 96
Endpoint: EC50 - Species: Dafnie > 100 mg/l - Time h: 48
Source: Supplier's SDS

12.2. Persistence and degradability

SODIUM ETASULFATE
rapidly degradable (equivalent or similar to OECD 301 B)

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE
Rapidly degradable, OECD Guideline 301 D

SODIUM SILICATE

Degradability: information not available
Inorganic substance

2-ETHYLHEXANOL ETHOXYLATED
Rapidly degradable (Test: OECD 301F - Time: 28 days - %: 70). Source: Supplier's SDS

12.3. Bioaccumulative potential

SODIUM SILICATE: Bioaccumulative potential: minimal.

TETRASODIUM N,N-BIS(CARBOXYLATOMETHYL)-L-GLUTAMATE

Partition coefficient: n-octanol/water	-11 Log Kow 27°C - OECD TG 117

SODIUM ETASULFATE

Partition coefficient: n-octanol/water	-0,248 Log Kow OECD TG 123

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. (Directive 2008/98/EC and subsequent amendments and adjustments and related national transpositions).
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The legal responsibility for disposal is the producer / holder of the waste.
To this mixture different EWC codes could be applied (European Waste Code) based on the specific circumstances that generated the waste, possible alterations and / or possible contamination.

The product as such, contained in the original packaging, or decanted in an appropriate container for the purpose of disposal, or no longer usable (for example following an accidental spill), must be classified with a EWC code that is compatible with the description of the use indicated in section 1.2.

The suitable final destination of the waste must be evaluated by the manufacturer on the basis of the chemical-physical characteristics of the waste, the compatibility with the authorized facility to which it will be given for recovery, and the definitive treatment or disposal according to the procedures established by current regulations .
Disposal through wastewater discharge is not permitted.

For hazardous substances registered according to Regulation EC 1907/2006 (REACH), for which a chemical safety report has been drawn up, refer to the specific information contained in the exposure scenarios attached to this SDS.

CONTAMINATED PACKAGING
Contaminated packaging must be sent, properly labeled, to recovery or disposal in compliance with national waste management regulations and must be classified with the following EWC code:

15 01 10*: packaging containing residues of or contaminated by dangerous substances

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point	*3.* *Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/ 2008:* *(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;* *(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;* *(c) hazard class 4.1;* *(d) hazard class 5.1.*

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004

Ingredients according to Regulation (EC) No. 648/2004

Less than 5%	Anionic surfactants, Soap
5% or over but less than 15%	Non-ionic surfactants

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

SODIUM SILICATE

SECTION 16. Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008

Classification according to Regulation (EC) Nr. 1272/2008	**Classification procedure**
Serious eye damage, category 1 H318	Calculation method

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H290	May be corrosive to metals.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for the recipient of the Safety Data Sheet (SDS):

The recipient of this SDS shall make sure of reading and understanding the information included by all people who handle, store, use, or otherwise come into contact in any way with the substance or mixture to which this SDS is referred to. In particular, the recipient shall provide adequate training to the personnel for the use of hazardous substances and/or mixtures. The recipient shall verify the suitability and completeness of the provided information according to the specific use of the substance or mixture. However, the substance or mixture referred to by this SDS shall not be used for uses other than those specified in Section 1. The Supplier don't assume responsibility for improper uses. Since the use of the product does not fall under the direct

control of the Supplier, the user shall, under his own responsibility, fulfill national and EU regulations concerning health and safety.
The information included in this SDS are provided in good faith and are based on the current state of scientific and technical knowledge, at the revision date indicated, available to the Supplier indicated in Section 1 of this SDS. It shall not be meant that the SDS is a guarantee of any specific property of the substance or mixture. The information concern only to the substance or mixture specifically designated in Section 1 and it could not be valid for the substance or mixture used in combination with other materials or in any process not specified in the text.
This version of the SDS substitutes all the previous versions.

Changes to previous review:
The following sections were modified:
02 /03 / 05 /06 /07 /08 /09 /10/ 11 /12 /15 /16