

# Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

### 1.1. Product identifier

Code: 0030220  
Product name: DESOLF 4  
Chemical name and synonym: DESOLF 4

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

Sector of use: SU22 - Professional uses  
Product category: PC35 - Washing and cleaning products (including solvent-based products)  
Description/Use: Desulfating alkaline cleaner powder to be mixed with water

### 1.3. Details of the supplier of the safety data sheet

Name: MARBEC S.R.L.  
Full address: VIA CROCE ROSSA 5/i  
District and Country: 51037 MONTALE (PISTOIA)  
ITALIA

Tel. +039 0573/959848

Fax

e-mail address of the competent person

responsible for the Safety Data Sheet

Supplier: info@marbec.it

### 1.4. Emergency telephone number

For urgent inquiries refer to

MARBEC srl  
0573959848 h8.30-13 h14-18 o 3357267921  
Numero telefonico di Centri Antiveleni attivi 24/24 ore  
IRCSS Fondazione Maugeri –  
Pavia 0039-0382-24444  
CAV Ospedali Riuniti –  
Bergamo 0039-800-883300  
CAV Ospedale Niguarda Ca` Granda –  
Milano 0039-02-66101029  
CAV Ospedale Careggi- Firenze 0039-055-7947819  
CAV Policlinico Gemelli –  
Roma 0039-06-3054343  
CAV Policlinico Umberto I –  
Roma 0039-06 49978000  
CAV Ospedale Cardarelli –  
Napoli 0039-081 5453333  
CAV Azienda Ospedaliera Integrata Verona - Verona 800011858

## 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:**

Acute toxicity, category 4

H302

Harmful if swallowed.

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:****H302**

Harmful if swallowed.

**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 / . . .

**P264**

Wash . . . thoroughly after handling.

**Contains:**EDTA tetrasodium  
ammonium carbamate  
Sulphuric acid, mono-C12-14-alkyl esters, sodium salts  
AMMONIUM BICARBONATE**2.3. Other hazards**

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

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>Silicic acid, calcium salt (crystalline)</b>		
CAS 1344-95-2	30 ≤ x < 50	Eye Irrit. 2 H319
EC 215-710-8		
INDEX -		
REACH Reg. 01-2119990740-32 -xxxx		
<b>SODIUM CARBONATE</b>		
CAS 497-19-8	10 ≤ x < 30	Eye Irrit. 2 H319
EC 207-838-8		
INDEX 011-005-00-2		
REACH Reg. 01-2119485498-19		
<b>AMMONIUM BICARBONATE</b>		
CAS 1066-33-7	9 ≤ x < 30	Acute Tox. 4 H302
EC 213-911-5		LD50 Oral: 1576
INDEX -		
REACH Reg. 01-2119486970-26		
<b>ammonium carbamate</b>		
CAS 1111-78-0	9 ≤ x < 30	Acute Tox. 4 H302, Eye Dam. 1 H318
EC 214-185-2		LD50 Oral: >1000
INDEX -		
REACH Reg. 01-2119493982-22		
<b>EDTA tetrasodium</b>		
CAS 64-02-8	3 ≤ x < 9	Acute Tox. 4 H302, Acute Tox. 4 H332, STOT RE 2 H373, Eye Dam. 1 H318
EC 200-573-9		LD50 Oral: 2000 mg/l, STA Inhalation mists/powders: 1,5 mg/l
INDEX 607-428-00-2		
REACH Reg. 01-2119486762-27-0000		
<b>Sulphuric acid, mono-C12-14-alkyl esters, sodium salts</b>		
CAS 85586-07-8	3 ≤ x < 9	Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315
EC 287-809-4		LD50 Oral: 1800
INDEX -		
REACH Reg. 01-2119489463-28		

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 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

**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**

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

Choose the most appropriate extinguishing equipment for the specific case.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

The product is neither flammable nor combustible.

**5.3. Advice for firefighters**

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**

If there are no contraindications, spray powder with water to prevent the formation of dust.

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. These indications apply for both processing staff and those involved in emergency procedures.

**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 and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany):

13

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

RCP TLV

ACGIH TLVs and BEIs –  
Appendix H

### Silicic acid, calcium salt (crystalline)

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
RCP TLV		10				INHAL
RCP TLV		3				RESP

### SODIUM CARBONATE

#### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			10 mg/m <sup>3</sup>				10 mg/m <sup>3</sup>	

### AMMONIUM BICARBONATE

#### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,37	mg/l
Normal value in marine water	0,037	mg/l
Normal value for fresh water sediment	0,1332	mg/kg
Normal value for marine water sediment	0,01332	mg/kg
Normal value for water, intermittent release	0,63	mg/l
Normal value of STP microorganisms	1347	mg/l

Normal value for the terrestrial compartment 74,9 mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation		143,91 mg/m3		13,33 mg/m3		160,7 mg/m3		62,5 mg/m3
Skin				34,2 mg/kg/d				57 mg/kg/d

**ammonium carbamate**

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,037	mg/l
Normal value in marine water	0,0037	mg/l
Normal value for fresh water sediment	0,167	mg/kg
Normal value for marine water sediment	0,0167	mg/kg
Normal value for water, intermittent release	0,37	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0117	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				12,3 mg/m3				49,8 mg/m3
Skin				7,1 mg/kg/d				14,1 mg/kg/d

**EDTA tetrasodium**

Predicted no-effect concentration - PNEC

Normal value in fresh water	2,2	mg/l
Normal value in marine water	0,22	mg/l
Normal value for water, intermittent release	1,2	mg/l
Normal value of STP microorganisms	43	mg/l
Normal value for the terrestrial compartment	0,72	mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	25 mg/kg/d				
Inhalation	VND	1,5 mg/m3	1,5 mg/m3	1,5 mg/m3	2,5 mg/m3	2,5 mg/m3	2,5 mg/m3	2,5 mg/m3

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

AMMONIUM BICARBONATE

Components with limit values to be complied with at the workplace.

124-38-9: carbon dioxide

TWA value 9,000 mg/m<sup>3</sup>; 5.000 ppm (OUL (EU)) indicativo

TWA value 9,000 mg/m<sup>3</sup>; 5.000 ppm (OEL (IT))

7664-41-7: anhydrous ammonia

TWA value 14 mg/m<sup>3</sup>; 20 ppm (OEL (EU)) indicativo

STEL value 36 mg/m<sup>3</sup>; 50 ppm (OEL (EU)) indicativo

TWA value 14 mg/m<sup>3</sup>; 20 ppm (OEL (IT))

STEL value 36 mg/m<sup>3</sup>; 50 ppm (OEL (IT))

## 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 your chemical substance 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

In case of prolonged contact with the product, it is advisable to protect the hands with penetration-resistant work gloves (ref. EN 374). For the final choice of material for work gloves, the process of use of the product and any other resulting products must also be evaluated. It should also be remembered that latex gloves may give rise to sensitisation phenomena.

### SKIN PROTECTION

Wear work clothes with long sleeves and safety footwear for professional use category I (ref. Regulation 2016/425 and EN ISO 20344). Wash with soap and water after removing protective clothing.

### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

### RESPIRATORY PROTECTION

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

### 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	white powder	
Colour	Not available	
Odour	characteristic	
Melting point / freezing point	Not applicable	
Initial boiling point	Not applicable	
Boiling range	Not applicable	
Flammability	incombustible	

Lower explosive limit	Not applicable
Upper explosive limit	Not applicable
Flash point	> 90 °C
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	12 (20% aqueous. disp)
Kinematic viscosity	Not available
Solubility	partially soluble in water
Partition coefficient: n-octanol/water	Not available
Vapour pressure	Not available
Density and/or relative density	0,3 kg/l
Relative vapour density	Not available
Particle characteristics	Not available

## 9.2. Other information

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

Information not available

### 9.2.2. Other safety characteristics

Explosive properties not applicable

Oxidising properties not applicable

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

AMMONIUM BICARBONATE

Decomposes above 60°C/140°F.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

### 10.5. Incompatible materials

Information not available



**10.6. Hazardous decomposition products**

AMMONIUM BICARBONATE

May develop: ammonia.

**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 - mists / powders) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	1708,45 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

Silicic acid, calcium salt (crystalline) LC50 (Inhalation mists/powders):	> 4,9 mg/l/4h inhalation rat
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**SODIUM CARBONATE**

LD50 (Dermal): > 2000 mg/kg rabbit  
LD50 (Oral): 2800 mg/kg rat  
LC50 (Inhalation mists/powders): 2300 mg/l/2h Rat

**AMMONIUM BICARBONATE**

LD50 (Oral): 1576 mg/kg Rat

## ammonium carbamate

LD50 (Oral): > 1000 mg/kg rat

## EDTA tetrasodium

LD50 (Oral): 2000 mg/kg  
LC50 (Inhalation vapours): > 1 mg/l ratto  
STA (Inhalation mists/powders): 1,5 mg/l  
(figure used for calculation of the acute toxicity estimate of the mixture)

## Sulphuric acid, mono-C12-14-alkyl esters, sodium salts

LD50 (Dermal): > 2000 mg/kg rat  
LD50 (Oral): 1800 mg/kg rat

**SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class

**AMMONIUM BICARBONATE**

Assessment of the irritating effect: not irritating to the skin. The product has not been fully tested. The claims were derived in part from products of similar structure or composition.

ammonium carbamate  
Not irritating to the skin

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage

**AMMONIUM BICARBONATE**

Assessment of the irritating effect: not irritating to the eyes. The product has not been fully tested. The claims were derived in part from products of similar structure or composition.

ammonium carbamate  
Risk of serious damage to eyes

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### AMMONIUM BICARBONATE

Assessment of the sensitizing effect: the chemical composition does not suggest a sensitizing effect.

#### Respiratory sensitization

ammonium carbamate

The chemical composition does not suggest a sensitizing effect

#### Skin sensitization

ammonium carbamate

The chemical composition does not suggest a sensitizing effect

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### AMMONIUM BICARBONATE

The substance was not mutagenic on bacteria. The substance was not mutagenic to a mammalian cell culture.

ammonium carbamate

Mutagenicity tests did not reveal a genotoxic potential. The product has not been fully tested and claims have been derived in part from products of similar structure or composition.

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

#### AMMONIUM BICARBONATE

All available information does not provide any indication of a possible carcinogenic effect. The product has not been tested. The indications were derived from substances / products of similar composition or structure.

ammonium carbamate

It did not show carcinogenic effects in experimental animals. The product has not been tested. The claims were derived in part from products of similar structure or composition.

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

AMMONIUM BICARBONATE  
Scientifically not justified study

ammonium carbamate  
Scientifically not justified study

#### Adverse effects on sexual function and fertility

Information not available

#### Adverse effects on development of the offspring

Information not available

#### Effects on or via lactation

Information not available

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

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**

## SODIUM CARBONATE

LC50 - for Fish

300 mg/l/96h lepomis macrochirus

EC50 - for Crustacea

200 mg/l/48h daphnia magna

## EDTA tetrasodium

LC50 - for Fish

100 mg/l/96h

EC50 - for Crustacea

100 mg/l/48h

EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h scenedesmus obliquus
Chronic NOEC for Fish	36,9 mg/l 21d
Chronic NOEC for Crustacea	25 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	84 mg/l

## ammonium carbamate

LC50 - for Fish	37 mg/l/96h Pimephales promelas
EC50 - for Crustacea	63 mg/l/48h - Daphnia magna
EC50 - for Algae / Aquatic Plants	129,1 mg/l/72h Desmodesmus subspicatus (Scenedesmus subspicatus)

Sulfuric acid, mono-C12-14-alkyl esters,  
sodium salts

LC50 - for Fish	3,6 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	4,7 mg/l/48h Daphnia magna

**12.2. Persistence and degradability**

Silicic acid, calcium salt (crystalline) The substance is inorganic so it is not subject to biodegradation.

## SODIUM CARBONATE

Solubility in water	1000 - 10000 mg/l
Degradability: information not available	

## AMMONIUM BICARBONATE

Solubility in water	220000 mg/l
Degradability: information not available	

## EDTA tetrasodium

NOT rapidly degradable

## ammonium carbamate

Degradability: information not available

Sulfuric acid, mono-C12-14-alkyl esters,  
sodium salts

Rapidly degradable

**12.3. Bioaccumulative potential**

Silicic acid, calcium salt (crystalline) The substance is inorganic, therefore not subject to accumulation.

## AMMONIUM BICARBONATE

Partition coefficient: n-octanol/water	-2,4
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EDTA tetrasodium  
Partition coefficient: n-octanol/water  
BCF

-13 Log Kow  
1,8 (28 d) lepomis macrochirus. L'accumulo negli organismi è modesto

**12.4. Mobility in soil**

Silicic acid, calcium salt (crystalline)  
The substance has a low potential for absorption.

**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  $\geq$  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.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**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

Contained substance

Point 75

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  $\geq$  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 dangerous to health must be subject to health surveillance carried out in accordance with the provisions of art. 41 of D.Lgs. 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed irrelevant, in accordance with art. 224 paragraph 2.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters

**15.2. Chemical safety assessment**

A chemical safety assessment has been prepared for the following substances in the mixture: Sodium carbonate, EDTA, sulfuric acid, mono-C12-14-alkyl esters, sodium salts

**SECTION 16. Other information**

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

<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H318</b>	Causes serious eye damage.
<b>H315</b>	Causes skin 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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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 as for REACH Regulation
- 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)
- 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 users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:  
The following sections were modified:  
01 / 02 / 03 / 08 / 09 / 11 / 12 / 15 / 16.