

Safety Data Sheet

Clima-Net



Safety Data Sheet dated 29/6/2023, version 1.0

This version cancels and substitutes any previous version

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

1.1. Product identifier

Mixture identification:

Trade name: Clima-Net

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

Recommended use:

Evaporator and Plastic Cleaner

1.3. Details of the supplier of the safety data sheet

Company:

ERRECOM SPA

Via Industriale, 14

Corzano (BS) Italy

Tel. +39 030/9719096

Competent person responsible for the safety data sheet:

lab@errecom.it


1.4. Emergency telephone number

+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P280 Wear eye 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.

Special Provisions:

None

Contains

1,2-benzisothiazolin-3-one: May produce an allergic reaction.

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 $\geq 0.1\%$

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Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients












3.1. Substances

N.A.

3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
>= 1% - < 2.5%	Alcohols, C12-15, branched and linear, ethoxylated	CAS: 106232-83-1	3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318 4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 2.5%	propan-2-ol	Index number: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7 REACH No.: 01-21194575 58-25-XXXX	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336
>= 0.1% - < 0.25%	ethanol	Index number: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 REACH No.: 01-21194576 10-43-XXXX	2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319
>= 0.05% - < 0.1%	didecyldimethylammonium chloride	Index number: 612-131-00-6 CAS: 7173-51-5 EC: 230-525-2 REACH No.: 01-21199459 87-15-XXXX	3.1/3/Oral Acute Tox. 3 H301 3.2/1B Skin Corr. 1B H314 3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C2 Aquatic Chronic 2 H411 M=1.
>= 0.05% - < 0.1%	Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	CAS: 85409-23-0 EC: 287-090-7 REACH No.: 01-21207718 12-51-XXXX	3.1/4/Oral Acute Tox. 4 H302 3.2/1B Skin Corr. 1B H314 3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 0.05% - < 0.1%	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	CAS: 68424-85-1 EC: 270-325-2 REACH No.: 01-21199651 80-41-XXXX	3.1/4/Oral Acute Tox. 4 H302 3.2/1B Skin Corr. 1B H314 3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=1.

>= 0.01% - < 0.05%	1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9 REACH No.: 01-21207615 40-60-XXXX	 3.4.2/1A Skin Sens. 1A H317  4.1/A1 Aquatic Acute 1 H400  3.1/4/Oral Acute Tox. 4 H302 Specific Concentration Limits: C >= 0,05%: Skin Sens. 1,1A,1B H317
>= 0.0001% - < 0.01%	sodium hydroxide	Index number: 011-002-00-6 CAS: 1310-73-2 EC: 215-185-5 REACH No.: 01-21194578 92-27-XXXX	 2.16/1 Met. Corr. 1 H290  3.2/1A Skin Corr. 1A H314  3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C >= 5%: Skin Corr. 1A H314 2% <= C < 5%: Skin Corr. 1B H314 0,5% <= C < 2%: Skin Irrit. 2 H315 0,5% <= C < 2%: Eye Irrit. 2 H319
>= 0.0001% - < 0.01%	diethanolamine	Index number: 603-071-00-1 CAS: 111-42-2 EC: 203-868-0 REACH No.: 01-21194889 30-28-XXXX	 3.7/2 Repr. 2 H361  3.1/4/Oral Acute Tox. 4 H302  3.9/2 STOT RE 2 H373  3.3/1 Eye Dam. 1 H318  3.2/2 Skin Irrit. 2 H315

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

After contact with skin, wash immediately with soap and plenty of water.

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

No information available.

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:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

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
For non emergency personnel:
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
For emergency responders:
Wear personal protection equipment.
- 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.
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.
Advice on general occupational hygiene:
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Store the product between + 0 °C / + 32 °F and + 40 °C / + 104 °F.
Store away from direct sunlight.
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)
Information not available.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
propan-2-ol - CAS: 67-63-0

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ACGIH - TWA(8h): 492 mg/m³, 200 ppm - STEL: 983 mg/m³, 400 ppm
EU - TWA(8h): 200 ppm - STEL(15min): 400 ppm
ethanol - CAS: 64-17-5
ACGIH - STEL(15min): 1884 mg/m³, 1000 ppm
EU - TWA(8h): 1000 ppm - Notes: A3
sodium hydroxide - CAS: 1310-73-2
ACGIH - STEL: Ceiling 2 mg/m³ - Notes: URT, eye, and skin irr
diethanolamine - CAS: 111-42-2
ACGIH - TWA(8h): 1 mg/m³ - Notes: (IFV), Skin, A3 - Liver and kidney dam

DNEL Exposure Limit Values

propan-2-ol - CAS: 67-63-0
Consumer: 26 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Industry: 500 mg/m³ - Consumer: 89 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 888 mg/kg - Consumer: 319 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

ethanol - CAS: 64-17-5
Worker Industry: 1900 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 950 mg/m³ - Consumer: 114 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 343 mg/kg - Consumer: 206 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 87 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

didecyldimethylammonium chloride - CAS: 7173-51-5
Worker Professional: 5.39 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 5.39 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Professional: 1.55 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 1.55 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides - CAS: 85409-23-0
Worker Professional: 1 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS: 68424-85-1
Worker Professional: 3.96 mg/m³ - Consumer: 1.64 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 5.7 mg/kg - Consumer: 3.4 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

1,2-benzisothiazolin-3-one - CAS: 2634-33-5
Worker Professional: 1 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

sodium hydroxide - CAS: 1310-73-2
Worker Professional: 1 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

diethanolamine - CAS: 111-42-2
Worker Professional: 0.75 mg/m³ - Consumer: 0.25 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

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Worker Professional: 0.5 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 0.13 mg/kg - Consumer: 0.07 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 0.06 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

propan-2-ol - CAS: 67-63-0

Target: Fresh Water - Value: 140.9 mg/L

Target: Marine water - Value: 140.9 mg/L

Target: Freshwater sediments - Value: 552 mg/kg

Target: Aquatic, periodic release - Value: 140.9 mg/L

Target: Microorganisms in sewage treatments - Value: 2251 mg/L

Target: Food chain - Value: 160 mg/kg

Target: Soil (agricultural) - Value: 28 mg/kg

ethanol - CAS: 64-17-5

Target: Fresh Water - Value: 0.96 mg/L

Target: Marine water - Value: 0.79 mg/L

Target: Freshwater sediments - Value: 3.6 mg/kg

Target: Marine water sediments - Value: 2.9 mg/kg

Target: Aquatic, periodic release - Value: 2.75 mg/L

Target: Microorganisms in sewage treatments - Value: 580 mg/L

Target: Secondary poisoning - Value: 380 mg/kg

Target: Soil (agricultural) - Value: 0.63 mg/kg

didecyldimethylammonium chloride - CAS: 7173-51-5

Target: Fresh Water - Value: 0.002 mg/L

Target: Marine water - Value: 0.0002 mg/L

Target: Freshwater sediments - Value: 2.82 mg/kg

Target: Marine water sediments - Value: 0.28 mg/kg

Target: Microorganisms in sewage treatments - Value: 0.595 mg/L

Target: Soil (agricultural) - Value: 1.4 mg/kg

Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides - CAS: 85409-23-0

Target: Fresh Water - Value: 0.000415 mg/L

Target: Marine water - Value: 0.000042 mg/L

Target: Microorganisms in sewage treatments - Value: 0.21 mg/L

Target: Freshwater sediments - Value: 6.81 mg/kg

Target: Marine water sediments - Value: 0.681 mg/kg

Target: Soil (agricultural) - Value: 1.36 mg/kg

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS: 68424-85-1

Target: Fresh Water - Value: 0.001 mg/L

Target: Marine water - Value: 0.001 mg/L

Target: Freshwater sediments - Value: 12.27 mg/kg - Notes:: dry weight

Target: Marine water sediments - Value: 13.09 mg/kg - Notes:: dry weight

Target: Microorganisms in sewage treatments - Value: 0.4 mg/L

Target: Soil (agricultural) - Value: 7 mg/kg - Notes:: dry weight

diethanolamine - CAS: 111-42-2

Target: Fresh Water - Value: 0.021 mg/L

Target: Marine water - Value: 0.002 mg/L

Target: Aquatic, periodic release - Value: 0.095 mg/L

Target: Freshwater sediments - Value: 0.092 mg/kg

Target: Marine water sediments - Value: 0.0092 mg/kg

Target: Microorganisms in sewage treatments - Value: 100 mg/L

Target: Soil (agricultural) - Value: 1.63 mg/kg

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Target: Oral - Value: 1.04 mg/kg

8.2. Exposure controls

Eye protection:

Use close safety visors, don't use eye lens.

Protection for skin:

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

Protection for hands:

One-time gloves.

Suitable material:

CR (polychloroprene, chloroprene rubber).

NBR (nitrile rubber).

NR (natural rubber, natural latex).

Material thickness: minimum 0.12 mm.

Break through time : > 480 min

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

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

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	Green	--	--
Odour:	perfumed	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	9	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	total	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	1 g/mL (+20°C /	ASTM-D4052	--

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	+68°F)		
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

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

No data available

SECTION 11: Toxicological information

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

Toxicological information of the product:

a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met

e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

h) STOT-single exposure

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Alcohols, C12-15, branched and linear, ethoxylated - CAS: 106232-83-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 300 mg/kg - Notes: 300-2000 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Positive

c) serious eye damage/irritation:

Test: Eye Irritant - Route: Eyes - Species: Rabbit Negative

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin Negative

Test: Respiratory Sensitization - Route: Inhalation Negative

propan-2-ol - CAS: 67-63-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 5840 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit 13900 mg/kg

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 2500 mg/L - Duration: 4h

Test: LD50 - Route: Skin - Species: Rabbit 6290 mg/kg

g) reproductive toxicity:

Test: NOAEL - Route: Oral - Species: Rabbit 480 mg/kg

ethanol - CAS: 64-17-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 10470 mg/kg - Notes: OCSE 401

Test: LC50 - Route: Inhalation Vapour - Species: Rat = 124.7 mg/L - Duration: 4h -

Notes: OCSE 403

g) reproductive toxicity:

Test: NOAEL - Route: Oral - Species: Rat > 20000 ppm - Notes: OCSE 414 (phoetal development)

didecyldimethylammonium chloride - CAS: 7173-51-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 238 mg/kg - Source: Method: OECD Test Guideline 401

Test: LD50 - Route: Skin - Species: Rabbit 3342 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Positive - Source: Method: OECD

Test Guideline 404 - Notes: Exposure time: 3 min

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Source:

Method: US-EPA, OECD TG 406 - Notes: Buehler Test

e) germ cell mutagenicity:

Test: Ames test - Species: Salmonella Typhimurium Negative - Source: Method: OECD Test Guideline 471 - Notes: Metabolic activation

Test: chromosomal aberration test - Route: In vitro - Species: Chinese hamster ovary cells Negative - Notes: Metabolic activation

Test: Mutagenesis - Species: Chinese hamster ovary cells Negative - Notes: Metabolic activation

Test: chromosomal aberration test - Route: Oral - Species: Rat Negative 600 mg/kg - Source: Method: OECD Test Guideline 475 - Notes: Chromosome aberration test in vivo

Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides - CAS: 85409-23-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 344 mg/kg - Notes: Method: comparable to OECD 401 - data from similar substance

Test: LD50 - Route: Skin - Species: Rabbit 2300 mg/kg - Notes: data from similar substance

e) germ cell mutagenicity:

Test: Ames test - Route: In vitro - Species: Salmonella Typhimurium Negative - Notes: Mutagenicity with or without metabolic activation. BPL: yes

Test: chromosomal aberration test - Route: In vitro - Species: mammalian cells Negative - Source: OECD TG 473 - Notes: BPL: yes - data from similar substance

Test: Mutagenesis - Route: In vitro Negative - Notes: BPL: yes - data from similar substance

g) reproductive toxicity:

Test: NOAEL - Route: Oral - Species: Rat 51 mg/kg - Notes: BPL: yes - Test type: Bigenerational study.

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS: 68424-85-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 344 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit 3412 mg/kg - Notes: Method: OPPTS 870.1200

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive - Duration: 4h - Source: Method: DOT

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Source: Buehler Test OECD TG 406

e) germ cell mutagenicity:

Test: Ames test - Route: In vitro - Species: Salmonella Typhimurium Negative - Source: OECD TG 471 - Notes: Methabolic activation: yes - BPL: yes

Test: chromosomal aberration test - Route: In vitro - Species: Human lymphocytes Negative - Source: OECD TG 473 - Notes: Methabolic activation: yes

Test: Mutagenesis - Route: In vitro - Species: Chinese hamster ovary cells Negative - Source: OECD TG 476 - Notes: Methabolic activation: yes - BPL: yes

Test: Genotoxicity - Route: In vitro - Species: rat hepatocytes Negative - Source: Unscheduled DNA synthesis test OECD TG 482 - Notes: BPL: yes

g) reproductive toxicity:

Test: NOAEL - Route: Oral - Species: Rat Negative 54 mg/kg - Source: OECD TG 416 - Notes: Doses: 0-300-1000-2000 ppm. General toxicity F1: 54-86 mg / kg, general toxicity

1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 670 mg/kg - Notes: OECD TG 401

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Notes: OECD TG 402

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Positive - Duration: 4h - Notes: US-EPA

c) serious eye damage/irritation:

Test: Eye Corrosive - Route: Eyes - Species: Rabbit Positive - Notes: OECD TG 405

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Human beings Positive

e) germ cell mutagenicity:

Test: Mutagenesis - Route: In vitro - Species: Salmonella Typhimurium Negative - Notes: OECD TG 471

Test: chromosomal aberration test - Route: In vitro - Species: Human lymphocytes Negative - Notes: OECD TG 473; with Metabolic activation

Test: Mutagenesis - Route: In vitro - Species: murine lymphoma cells Negative - Notes: OECD TG 476

- Test: Micronucleus test - Route: In vivo - Species: Mouse Negative - Notes: OECD TG 474; Cell type: Bone marrow; Oral; Doses: 1200 mg/kg
sodium hydroxide - CAS: 1310-73-2
- a) acute toxicity:
Test: LC50 - Route: Inhalation > 4800 mg/kg
 - b) skin corrosion/irritation:
Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive
 - c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit Positive - Source: OECD TG 405
 - d) respiratory or skin sensitisation:
Test: Respiratory Sensitization - Route: In vitro Negative - Notes: ECHA
Test: Skin Sensitization - Route: In vitro Negative - Notes: ECHA
 - e) germ cell mutagenicity:
Test: Ames test - Species: Salmonella Typhimurium Negative
- diethanolamine - CAS: 111-42-2
- a) acute toxicity:
Test: LC0 - Route: Inhalation - Species: Rat 0.2 mg/L - Duration: 8h
 - b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Positive
 - c) serious eye damage/irritation:
Test: Eye Corrosive - Route: Eyes - Species: Rabbit Positive
 - d) respiratory or skin sensitisation:
Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative

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.

Not classified for environmental hazards

Based on available data, the classification criteria are not met

Alcohols, C12-15, branched and linear, ethoxylated

a) Aquatic acute toxicity:

Endpoint: NOEC - Species: Fish > 0.1 mg/L - Notes: >0.1-1 mg/L CESIO

Endpoint: NOEC - Species: Daphnia > 0.1 mg/L - Notes: >0.1-1 mg/L CESIO

Endpoint: NOEC - Species: Algae > 0.1 mg/L - Notes: >0.1-1 mg/L CESIO

propan-2-ol

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/L - Duration h: 96 - Notes: Species:

Pimephales promelas

Endpoint: LC50 - Species: Daphnia > 10000 mg/L - Duration h: 24

Endpoint: EC50 - Species: Algae 1800 mg/L - Duration h: 168 - Notes: Species:

Scenedesmus quadricauda

ethanol

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 14200 mg/L - Duration h: 96 - Notes: Species:

Pimephales promelas

Endpoint: EC50 - Species: Daphnia > 12300 mg/L - Duration h: 48 - Notes: Species:

Daphnia magna

Endpoint: EC50 - Species: Algae > 275 mg/L - Duration h: 72 - Notes: Species:

Chlorella vulgaris

- Endpoint: EC50 - Species: Daphnia = 5012 mg/L - Duration h: 48 - Notes: Species: Ceriodaphnia dubia
Endpoint: EC50 - Species: Algae 4432 mg/L - Duration h: 168 - Notes: Species: lemna gibba
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Daphnia 9.6 mg/L - Duration h: 216 - Notes: Species: Daphnia magna
- didecyldimethylammonium chloride
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 0.19 mg/L - Duration h: 96 - Notes: Species: Pimephales promelas (fathead minnow) Acute toxicity Method: US-EPA
Endpoint: EC50 - Species: Daphnia 0.062 mg/L - Duration h: 48 - Notes: Species: Daphnia magna (Water flea) Immobilization Method: EPA-FIFRA
Endpoint: ErC50 - Species: Algae 0.026 mg/L - Duration h: 96 - Notes: Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Method: OECD Test Guideline 201
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish 0.032 mg/L - Duration h: 816 - Notes: Species: Danio rerio (zebra fish) Chronic toxicity Method: OECD Test Guideline 210
Endpoint: NOEC - Species: Daphnia 0.014 mg/L - Duration h: 504 - Notes: Species: Daphnia magna (Water flea)
- c) Bacteria toxicity:
Endpoint: EC50 - Species: Activated sludge 11 mg/L - Duration h: 3 - Notes: Species: activated sludge Respiration inhibition Method: OECD Test Guideline 209
- d) Terrestrial toxicity:
Endpoint: NOEC - Species: earthworms > 1000 mg/kg - Duration h: 336 - Notes: Species: Eisenia fetida Method: OECD Test Guideline 207
- e) Plant toxicity:
Endpoint: EC50 - Species: Terrestrial plants 283 mg/kg - Duration h: 336 - Notes: 283 - 1670 mg/kg Growth inhibition Method: OECD Test Guideline 208
- Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Daphnia > 0.00415 mg/L - Duration h: 504 - Notes: Method: EPA OPP 72-4 - BPL: yes
- Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 0.28 mg/L - Duration h: 96 - Notes: Species: Pimephales promelas (fathead minnow) Acute Toxicity Method: US-EPA
Endpoint: EC50 - Species: Daphnia 0.016 mg/L - Duration h: 48 - Notes: Species: Daphnia magna (Water flea) Immobilization Method: OECD Test Guideline 202
Endpoint: ErC50 - Species: Algae 0.049 mg/L - Duration h: 72 - Notes: Species: Pseudokirchneriella subcapitata (green algae)
Cell multiplication inhibition test Method: OECD Test Guideline 201
Endpoint: NOEC - Species: Fish 0.456 mg/L - Duration h: 96 - Notes: Species: Lepomis macrochirus
Endpoint: LC50 - Species: Fish 0.515 mg/L - Duration h: 96 - Notes: Species: Lepomis macrochirus
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish 0.0322 mg/L - Duration h: 816 - Notes: Species: Pimephales promelas (fathead minnow) Early-life Stage Method: EPA-FIFRA
Endpoint: NOEC - Species: Daphnia 0.00415 mg/L - Duration h: 504 - Notes: Species: Daphnia magna (Water flea) Reproduction Test Method: EPA-FIFRA
- c) Bacteria toxicity:
Endpoint: EC50 - Species: Activated sludge 7.75 mg/L - Duration h: 3 - Notes: OECD Test Guideline 209

- d) Terrestrial toxicity:
 - Endpoint: LC50 - Species: earthworms 7070 mg/kg - Duration h: 336 - Notes: Species: Eisenia fetida Method: OECD Test Guideline 207
 - Endpoint: EC50 - Species: Microflora of the soil > 1000 mg/kg - Duration h: 672 - Notes: OECD Test Guideline 216
 - e) Plant toxicity:
 - Endpoint: EC50 - Species: Terrestrial plants 277 mg/kg - Duration h: 336 - Notes: Growth inhibition Method: OECD Test Guideline 208
- 1,2-benzisothiazolin-3-one
- a) Aquatic acute toxicity:
 - Endpoint: LC50 - Species: Fish 2.18 mg/L - Duration h: 96 - Notes: Species: Oncorhynchus mykiss; Method: OECD TG 203
 - Endpoint: EC50 - Species: Daphnia 2.94 mg/L - Duration h: 48 - Notes: Species: Daphnia magna; Method: OECD TG 202
 - Endpoint: ErC50 - Species: Algae 0.11 mg/L - Duration h: 72 - Notes: Species: Pseudokirchneriella subcapitata; Method: OECD TG 201
 - Endpoint: ErC50 - Species: Algae 0.15 mg/L - Duration h: 72 - Notes: Species: Selenastrum capricornutum; Test type: Growth inhibitor
 - b) Aquatic chronic toxicity:
 - Endpoint: NOEC - Species: Fish 0.3 mg/L - Duration h: 672 - Notes: Species: Oncorhynchus mykiss; Test type: Growth inhibitor
 - Endpoint: NOEC - Species: Daphnia 1.7 mg/L - Duration h: 504 - Notes: Species: Daphnia magna; Method: OECD TG 211
 - d) Terrestrial toxicity:
 - Endpoint: LC50 - Species: earthworms > 410.6 mg/kg - Duration h: 336 - Notes: Species: Eisenia fetida; Method: OECD TG 207
 - Endpoint: NOEC - Species: Microflora of the soil 263.7 mg/kg - Duration h: 672 - Notes: OECD TG 216
- sodium hydroxide
- a) Aquatic acute toxicity:
 - Endpoint: LC50 - Species: Fish 189 mg/L - Duration h: 48
 - Endpoint: EC0 - Species: Daphnia = 40.4 mg/L - Duration h: 48 - Notes: Species: Ceriodaphnia dubia
 - Endpoint: LC50 - Species: Fish 125 mg/L - Duration h: 96 - Notes: Species: Gambusia affinis
 - Endpoint: LC50 - Species: Fish 45.4 mg/L - Duration h: 96 - Notes: Species: Oncorhynchus mykiss
 - c) Bacteria toxicity:
 - Endpoint: EC50 - Species: Bacteria 22 mg/L - Duration h: 0.25 - Notes: Species: Photobacterium phosphoreum
- diethanolamine
- a) Aquatic acute toxicity:
 - Endpoint: LC50 - Species: Fish 1460 mg/L - Duration h: 96 - Notes: Method: ASTM E729-80; Species: Pimephales promelas
 - Endpoint: EC50 - Species: Daphnia 55 mg/L - Duration h: 48 - Notes: Method: EPA 660/3-75/009; Species: Daphnia magna
 - Endpoint: EC10 - Species: Algae 1.1 mg/L - Duration h: 72 - Notes: Method: EPA 600/9-78/018; Species: Pseudokirchneriella subcapitata
 - Endpoint: EC50 - Species: Algae 19 mg/L - Duration h: 72 - Notes: Method: EPA 600/9-78/018; Species: Pseudokirchneriella subcapitata
 - b) Aquatic chronic toxicity:
 - Endpoint: EC10 - Species: Daphnia 1.05 mg/L - Duration h: 504 - Notes: Species: Daphnia magna
 - c) Bacteria toxicity:

Endpoint: EC10 - Species: Activated sludge > 1000 mg/L - Duration h: 0.5 - Notes:
Method: OCSE 209

12.2. Persistence and degradability

Alcohols, C12-15, branched and linear, ethoxylated - CAS: 106232-83-1

Biodegradability: Readily biodegradable - Test: OECD 301 F - %: 70

propan-2-ol - CAS: 67-63-0

Biodegradability: Readily biodegradable

ethanol - CAS: 64-17-5

Biodegradability: Readily biodegradable - Test: Solubility in water - Notes: 1000 -
10000 mg/L

didecyltrimethylammonium chloride - CAS: 7173-51-5

Biodegradability: Readily biodegradable - Test: Modified Sturm Test - Duration: 28 d -
%: 72 - Notes: Method: OECD Test Guideline 301B, concentration: 10 mg/L

Test: Die-Away Test - Duration: 28 d - %: 93.3 - Notes: Concentration: 0,016 mg/L

Test: OECD Confirmatory Test: - Duration: 24 - 70 d - %: 91 - Notes: Method: OECD
Test Guideline 303 A

Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides -
CAS: 85409-23-0

Biodegradability: Readily biodegradable - Test: OECD 301 B - Duration: 28 d - %: 95.5
- Notes: data on similar substances

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS:
68424-85-1

Test: OECD Confirmatory Test: - %: 90 - Notes: Method: OECD Test Guideline 303 A

Test: Modified SCAS Test - Duration: 7 d - %: 99 - Notes: Method: OECD Test
Guideline 302 A

Biodegradability: Readily biodegradable - Test: CO₂ Evolution Test - Duration: 28 d -
%: 95.5 - Notes: Method: OECD Test Guideline 301B. Concentration 5 mg / L

1,2-benzisothiazolin-3-one - CAS: 2634-33-5

Biodegradability: Readily biodegradable - Duration: 28 d - %: 70

diethanolamine - CAS: 111-42-2

Biodegradability: Readily biodegradable - Test: OECD 301 F - Duration: 28 d - %: 93

12.3. Bioaccumulative potential

propan-2-ol - CAS: 67-63-0

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.05

ethanol - CAS: 64-17-5

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.350000-

Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides -
CAS: 85409-23-0

Test: log Pow - Notes: 2.48 (20 °C) calculation method

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS:
68424-85-1

Bioaccumulation: Not bioaccumulative - Test: BCF - Bioconcentration factor -
Duration: 35 d - Notes: BCF: 79 - Concentration: 0,076 mg/L

Test: log Pow - Notes: 2.75 (20 °C) - Method: OECD TG 107 - GLP: yes

1,2-benzisothiazolin-3-one - CAS: 2634-33-5

Bioaccumulation: Not bioaccumulative

diethanolamine - CAS: 111-42-2

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient -2.46

12.4. Mobility in soil

didecyltrimethylammonium chloride - CAS: 7173-51-5

Mobility in soil: Mobile - Notes: Method: US-EPA

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides - CAS:
68424-85-1

Mobility in soil: Not mobile - Test: Koc 282624 - Notes: L/kg Kd: 13630, log Kd: 3,13 -
Method: OECD TG 106

diethanolamine - CAS: 111-42-2

Mobility in soil: Mobile - Test: Koc 0.99 - Notes: calculated value

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. 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

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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 75

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)

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:

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H410 Very toxic to aquatic life with long lasting effects.
H317 May cause an allergic skin reaction.
H290 May be corrosive to metals.
H315 Causes skin irritation.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2

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Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Repr. 2	3.7/2	Reproductive toxicity, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
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 Irrit. 2, H319	Calculation method

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.

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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.