

Safety Data Sheet

EVO ULTRA



Safety Data Sheet dated 5/12/2019, version 1

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: EVO ULTRA

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 SRL

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, Flam. Liq. 3, Flammable liquid and vapour.

 Warning, Skin Irrit. 2, Causes skin irritation.

 Danger, Eye Dam. 1, Causes serious eye damage.

 Warning, Skin Sens. 1, May cause an allergic skin reaction.

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

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P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special Provisions:

None

Contains

butan-1-ol
 1,2-benzisothiazolin-3-one
 Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides
 isotridecanol ethoxylate (polymer)

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

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

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
>= 12.5% - < 15%	butan-1-ol	Index number: 603-004-00-6 CAS: 71-36-3 EC: 200-751-6 REACH No.: 01-21194846 30-38-XXXX	2.6/3 Flam. Liq. 3 H226 3.1/4/Oral Acute Tox. 4 H302 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.8/3 STOT SE 3 H335 3.8/3 STOT SE 3 H336
>= 5% - < 7%	2-(2-butoxyethoxy)ethanol	Index number: 603-096-00-8 CAS: 112-34-5 EC: 203-961-6 REACH No.: 01-21194751 04-44-XXXX	3.3/2 Eye Irrit. 2 H319
>= 1% - < 2.5%	Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides	CAS: 308062-28-4 EC: 931-292-6 REACH No.: 01-21194900 61-47-XXXX	3.1/4/Oral Acute Tox. 4 H302 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 4.1/A1 Aquatic Acute 1 H400 4.1/C2 Aquatic Chronic 2 H411
>= 1% - < 2.5%	isotridecanol ethoxylate (polymer)	CAS: 69011-36-5	3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318
>= 0.25% - < 0.5%	didecyldimethylammonium chloride	Index number: 612-131-00-6 CAS: 7173-51-5	3.1/3/Oral Acute Tox. 3 H301 3.2/1B Skin Corr. 1B H314

		EC: 230-525-2 REACH No.: 01-21199459 87-15-XXXX	 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.
>= 0.25% - < 0.5%	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  4.1/A1 Aquatic Acute 1 H400  4.1/C1 Aquatic Chronic 1 H410
>= 0.25% - < 0.5%	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	CAS: 68424-85-1 EC: 270-325-2	 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.
>= 0.1% - < 0.25%	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	 3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317  4.1/A1 Aquatic Acute 1 H400  3.1/4/Oral Acute Tox. 4 H302
>= 0.1% - < 0.25%	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
>= 0.05% - < 0.1%	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

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).

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

Wash contaminated clothing before using them.

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:

CO2 or Dry chemical fire extinguisher.

Alcohol resistant foam fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

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

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

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

Retain contaminated washing water and dispose it.

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

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 containers away from any incompatible materials, checking section 10.

Store away from direct sunlight.

Store the product between + 0 °C / + 32 °F and + 40 °C / + 104 °F.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

See subsection 10.5

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

butan-1-ol - CAS: 71-36-3

ACGIH - TWA(8h): 20 ppm - Notes: Eye and URT irr

2-(2-butoxyethoxy)ethanol - CAS: 112-34-5

EU - TWA(8h): 67.5 mg/m³, 10 ppm - STEL: 101.2 mg/m³, 15 ppm

ACGIH - TWA(8h): 10 ppm - Notes: (IFV) - Hematologic, liver and kidney eff

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

ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

AGW - TWA(8h): 500 mg/m³, 200 ppm - STEL(15min): 1000 mg/m³, 400 ppm

MAK - TWA(8h): 500 mg/m³, 200 ppm - STEL(15min): 1000 mg/m³, 400 ppm

VLA - TWA(8h): 500 mg/m³, 200 ppm - STEL(15min): 1000 mg/m³, 400 ppm

VLEP - STEL(15min): 980 mg/m³, 400 ppm

WEL - TWA(8h): 999 mg/m³, 400 ppm - STEL(15min): 1250 mg/m³, 500 ppm

TLV - TWA(8h): 980 mg/m³, 400 ppm - STEL(15min): 1225 mg/m³, 500 ppm

NDS - TWA(8h): 900 mg/m³ - STEL(15min): 1200 mg/m³

NPHV - TWA(8h): 500 mg/m³, 200 ppm - STEL(15min): 1000 mg/m³

MV - TWA(8h): 500 mg/m³, 200 ppm

GVI - TWA(8h): 999 mg/m³, 400 ppm - STEL(15min): 1250 mg/m³, 500 ppm

sodium hydroxide - CAS: 1310-73-2

ACGIH - STEL: Ceiling 2 mg/m³ - Notes: URT, eye, and skin irr

DNEL Exposure Limit Values

butan-1-ol - CAS: 71-36-3

Worker Professional: 310 mg/m³ - Consumer: 55 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term (repeated)

Consumer: 3125 mg/kg - Exposure: Human Oral - Frequency: Long Term (repeated)

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

Worker Professional: 11 mg/kg - Consumer: 5.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 6.2 mg/m³ - Consumer: 1.53 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 0.44 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

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sodium hydroxide - CAS: 1310-73-2

Worker Professional: 1 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term (repeated)

PNEC Exposure Limit Values

butan-1-ol - CAS: 71-36-3

Target: Fresh Water - Value: 0.08 mg/l

Target: Aquatic, periodic release - Value: 2.25 mg/l

Target: Marine water - Value: 0.008 mg/l

Target: Freshwater sediments - Value: 0.324 mg/kg

Target: Microorganisms in sewage treatments - Value: 2476 mg/l

Target: Marine water sediments - Value: 0.032 mg/kg

Target: Soil (agricultural) - Value: 0.01 mg/kg

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

Target: Fresh Water - Value: 0.0335 mg/l

Target: Marine water - Value: 0.00335 mg/l

Target: Freshwater sediments - Value: 5.24 mg/kg

Target: Marine water sediments - Value: 0.524 mg/kg

Target: Soil (agricultural) - Value: 1.02 mg/kg

Target: Aquatic, periodic release - Value: 0.0335 mg/l

Target: Microorganisms in sewage treatments - Value: 24 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:

work gloves resistant to penetration (ref. standard EN 374).

Suitable material:

CR (polychloroprene, chloroprene rubber).

NBR (nitrile rubber).

Material thickness: 0.7 mm minimum.

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:

In the case of vapour formation use a respirator with an approved filter.

Mask with filter "A", brown colour

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

Appearance and colour: liquid colorless / red

Odour: mint

Odour threshold: N.A.

pH: 7

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Solid/gas flammability: N.A.

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Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	55 ° C
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1.03 g/mL (+20°C/+68°F)
Solubility in water:	N.A.
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.
9.2. Other information	
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.
V.O.C. (w/w):	N.A.

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
 - Avoid overheating, electrostatic discharge and all sources of ignition.
- 10.5. Incompatible materials
 - Strong oxidizing agents.
- 10.6. Hazardous decomposition products
 - When heated or in the event of fire may release gases and vapors potentially dangerous to health.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
 - Toxicological information of the product:
 - EVO ULTRA
 - a) acute toxicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - b) skin corrosion/irritation
 - The product is classified: Skin Irrit. 2 H315
 - c) serious eye damage/irritation
 - The product is classified: Eye Dam. 1 H318
 - d) respiratory or skin sensitisation
 - The product is classified: Skin Sens. 1 H317
 - e) germ cell mutagenicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - f) carcinogenicity
 - Not classified

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- 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:
- butan-1-ol - CAS: 71-36-3
- a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat 2292 mg/kg
 - Test: LD50 - Route: Skin - Species: Rabbit 3430 mg/kg
 - Test: LC0 - Route: Inhalation - Species: Rat > 17.76 mg/l - Duration: 4h
 - Test: NOAEL - Route: Oral - Species: Rat 125 mg/kg - Notes: bw/day
 - b) skin corrosion/irritation:
 - Test: Skin Irritant Positive
 - c) serious eye damage/irritation:
 - Test: Eye Irritant Positive
 - e) germ cell mutagenicity:
 - Test: Ames test Negative
 - Test: chromosomal aberration test Negative
 - g) reproductive toxicity:
 - Test: NOAEL - Route: Oral - Species: Rat 1454 mg/kg - Notes: bw/day
 - h) STOT-single exposure:
 - Test: Respiratory Tract Irritant Positive
- Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4
- a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat 1064 mg/kg
 - Test: NOAEL - Route: Oral - Species: Rat 88 mg/kg/day
 - Test: LOAEL - Route: Skin - Species: Mouse 0.045 mg/cm²
 - b) skin corrosion/irritation:
 - Test: Skin Irritant - Route: Skin Positive
 - c) serious eye damage/irritation:
 - Test: Eye Irritant Positive
 - d) respiratory or skin sensitisation:
 - Test: Skin Sensitization - Route: Skin Negative
- isotridecanol ethoxylate (polymer) - CAS: 69011-36-5
- a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat > 300 mg/kg
 - b) skin corrosion/irritation:
 - Test: Skin Irritant - Route: Skin Positive
 - c) serious eye damage/irritation:
 - Test: Eye Irritant - Route: Eyes Positive
 - d) respiratory or skin sensitisation:
 - Test: Skin Sensitization - Route: Skin Negative
 - Test: Respiratory Sensitization - Route: Inhalation Negative
- didecyldimethylammonium chloride - CAS: 7173-51-5
- a) acute toxicity:

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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 - 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 - 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, 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 3340 mg/kg - Duration: 24 h

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Positive - Duration: 24 h - Source: DOT - Notes: Corrosive

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive - Source: DOT - Notes: Corrosive

d) respiratory or skin sensitisation:

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

e) germ cell mutagenicity:

Test: Genotoxicity Negative - Source: Ames Test OECD TG 471 - Notes: Species: Salmonella typhimurium

Test: Genotoxicity Negative - Source: OECD TG 473 - Notes: Chromosome aberration in vitro, Human lymphocytes

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

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 1020 mg/kg

d) respiratory or skin sensitisation:

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

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

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 4710 mg/kg

Test: LD50 - Route: Skin - Species: Rat 12800 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 76.2 mg/l - Duration: 4h

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

sodium hydroxide - CAS: 1310-73-2

b) skin corrosion/irritation:

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

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive - Source: Guidelines 405 Test OECD

e) germ cell mutagenicity:

Test: Ames test - Species: Salmonella Typhimurium Negative

2-(2-butoxyethoxy)ethanol - CAS: 112-34-5
LD50 (RAT) ORAL: 6560 MG/KG
LD50 (RABBIT) SKIN: 4120 MG/KG

SECTION 12: Ecological information

12.1. Toxicity

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

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The product is classified: Aquatic Chronic 3 - H412

butan-1-ol - CAS: 71-36-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1376 mg/l - Duration h: 96 - Notes: Species:

Pimephales promelas

Endpoint: EC50 - Species: *Daphnia* = 1328 mg/l - Duration h: 48 - Notes: Species:

Daphnia magna

Endpoint: EC50 - Species: Algae = 225 mg/l - Duration h: 96 - Notes: Species:

Selenastrum capricornutum

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 2.67 mg/l

Endpoint: EC50 - Species: *Daphnia* 3.1 mg/l

Endpoint: IC50 - Species: Algae 0.143 mg/l

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae 0.078 mg/l - Duration h: 72

isotridecanol ethoxylate (polymer) - CAS: 69011-36-5

a) Aquatic acute toxicity:

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

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

didecyldimethylammonium chloride - CAS: 7173-51-5

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) Reproduction Test Method: OECD Test Guideline 211

c) Bacteria toxicity:

Endpoint: EC50 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:

Growth inhibition Method: OECD Test Guideline 208

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

- 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
- b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish 0.032 mg/l - Duration h: 816 - Notes: Species: Pimephales promelas (fathead minnow) Early-life Stage Method: EPA-FIFRA
Endpoint: NOEC - Species: Daphnia 0.0042 mg/l - Duration h: 504 - Notes: Species: Daphnia magna (Water flea) Reproduction Test Method: EPA-FIFRA
- c) Bacteria toxicity:
Endpoint: EC50 - Species: Bacteria 7.75 mg/l - Duration h: 3 - Notes: Species: activated sludge Respiration inhibition Method: 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 - CAS: 2634-33-5
- 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
- propan-2-ol - CAS: 67-63-0
- a) Aquatic acute toxicity:
Endpoint: EC0 - Species: Fish 10000 mg/l - Duration h: 48 - Notes: Pimephales promelas
Endpoint: LC50 - Species: Fish > 1400 mg/l - Duration h: 96 - Notes: Lepomis macrochirus
Endpoint: LC50 - Species: Fish 6550 mg/l - Duration h: 96 - Notes: Pimephales promelas
- sodium hydroxide - CAS: 1310-73-2
- 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

12.2. Persistence and degradability

Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides - CAS: 308062-28-4

Biodegradability: Readily biodegradable

didecyldimethylammonium chloride - CAS: 7173-51-5

Biodegradability: Readily biodegradable - Test: Modified Sturm Test - Duration: 28 d - %: 72 - Notes: Method: OECD Test Guideline 301B

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, 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

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

Biodegradability: Readily biodegradable

12.3. Bioaccumulative potential

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

Bioaccumulation: Not bioaccumulative

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

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

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information



14.1. UN number

ADR-UN Number: 1987

IATA-UN Number: 1987

IMDG-UN Number: 1987

14.2. UN proper shipping name

ADR-Shipping Name: ALCOHOLS, N.O.S. (butan-1-ol, propan-2-ol)

IATA-Shipping Name: ALCOHOLS, N.O.S. (butan-1-ol, propan-2-ol)

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- IMDG-Shipping Name: ALCOHOLS, N.O.S. (butan-1-ol, propan-2-ol)
- 14.3. Transport hazard class(es)
ADR-Class: 3
ADR - Hazard identification number: 30
IATA-Class: 3
IATA-Label: 3
IMDG-Class: 3
- 14.4. Packing group
ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III
- 14.5. Environmental hazards
ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No
- 14.6. Special precautions for user
ADR-Subsidiary hazards: -
ADR-S.P.: 274 601
ADR-Transport category (Tunnel restriction code): 3 (D/E)
IATA-Passenger Aircraft: 355
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 366
IATA-S.P.: A3 A180
IATA-ERG: 3L
IMDG-EmS: F-E , S-D
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
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) 2015/830
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. 2018/699 (ATP 11 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:

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Restriction 55

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
- Product belongs to category: P5c

15.2. Chemical safety assessment

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

SECTION 16: Other information

Full text of phrases referred to in Section 3:

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H410 Very toxic to aquatic life with long lasting effects.
- H317 May cause an allergic skin reaction.
- H225 Highly flammable liquid and vapour.
- H290 May be corrosive to metals.

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
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
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
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

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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
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 3, H412	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.
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.