

# Safety Data Sheet

## EVAPORATOR CLEANER FOAM



Safety Data Sheet dated 29/8/2023, version 10.0

This version cancels and substitutes any previous version

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

#### 1.1. Product identifier

Mixture identification:

Trade name: EVAPORATOR CLEANER FOAM

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

Recommended use:

Foam cleaner for A/C systems

#### 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

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)



Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H222, H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Special Provisions:

None

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

None

#### 2.3. Other hazards

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No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$   
 Other Hazards:  
 No other hazards

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

N.A.

#### 3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
$\geq 15\%$ - $< 20\%$	propane	Index number: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9 REACH No.: 01-21194869 44-21-XXXX	2.2/1A Flam. Gas 1A H220 2.5 Press. Gas H280
$\geq 5\%$ - $< 7\%$	butane	Index number: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 REACH No.: 01-21194746 91-32-XXXX	2.2/1A Flam. Gas 1A H220 2.5 Press. Gas H280
$\geq 2.5\%$ - $< 5\%$	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
$\geq 2.5\%$ - $< 5\%$	isobutane	Index number: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2 REACH No.: 01-21194853 95-27-XXXX	2.2/1A Flam. Gas 1A H220 2.5 Press. Gas H280
$\geq 0.5\%$ - $< 1\%$	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
$\geq 0.25\%$ - $< 0.5\%$	Sodium N-lauroylsarcosinate	CAS: 137-16-6 EC: 205-281-5 REACH No.: 01-21195277 80-39-XXXX	3.1/2/Inhal Acute Tox. 2 H330 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: C $\geq 34,5\%$ : Acute Tox. 2 H330 0% $\leq$ C $< 34,5\%$ : Acute Tox. 4 H332 C $\geq 30\%$ : Skin Irrit. 2 H315 C $\geq 30\%$ : Eye Dam. 1 H318 1% $\leq$ C $< 30\%$ : Eye Irrit. 2 H319
$\geq$	ethanediol	Index number: 603-027-00-1	3.1/4/Oral Acute Tox. 4 H302

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0.05% - < 0.1%		number: CAS: 107-21-1 EC: 203-473-3 REACH No.: 01-21194568 16-28-XXXX	3.9/2 STOT RE 2 H373
>= 0.0001% - < 0.01%	propionic acid ... %	Index number: 607-089-00-0 CAS: 79-09-4 EC: 201-176-3 REACH No.: 01-21194869 71-24-XXXX	2.6/3 Flam. Liq. 3 H226 3.2/1B Skin Corr. 1B H314 Specific Concentration Limits: C >= 25%: Skin Corr. 1B H314 10% <= C < 25%: Skin Irrit. 2 H315 10% <= C < 25%: Eye Irrit. 2 H319 C >= 10%: STOT SE 3 H335

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

Wash contaminated clothing before using them.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

Treatment:

No information available.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical 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

For non emergency personnel:

Wear personal protection equipment.

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- Remove all sources of ignition.
- 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
  - For cleaning up:
    - Ventilate the area.
- 6.4. Reference to other sections
  - See also section 8 and 13

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### 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 at below 20 °C. Keep away from unguarded flame 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:
    - Cool and adequately ventilated.
- 7.3. Specific end use(s)
  - Information not available.

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
  - propane - CAS: 74-98-6
    - ACGIH - Notes: (D, EX) - Asphyxia
  - butane - CAS: 106-97-8
    - ACGIH - STEL: 1000 ppm - Notes: (EX) - CNS impair
  - propan-2-ol - CAS: 67-63-0
    - ACGIH - TWA(8h): 492 mg/m<sup>3</sup>, 200 ppm - STEL(15min): 983 mg/m<sup>3</sup>, 400 ppm
    - EU - TWA(8h): 200 ppm - STEL(15min): 400 ppm
  - isobutane - CAS: 75-28-5
    - ACGIH - STEL: 1000 ppm - Notes: (EX) - CNS impair
  - ethanol - CAS: 64-17-5
    - ACGIH - STEL(15min): 1884 mg/m<sup>3</sup>, 1000 ppm
    - EU - TWA(8h): 1000 ppm - Notes: A3
  - ethanediol - CAS: 107-21-1
    - EU - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL: 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin

VLEP - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: skin  
 AGW - TWA(8h): 26 mg/m<sup>3</sup>, 10 ppm - STEL(15min): 52 mg/m<sup>3</sup>, 20 ppm - Notes: Skin  
 MAK - TWA(8h): 26 mg/m<sup>3</sup>, 10 ppm - STEL(15min): 52 mg/m<sup>3</sup>, 20 ppm - Notes: Skin  
 VLA - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 VLEP - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 WEL - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: skin  
 TLV - TWA(8h): 125 mg/m<sup>3</sup>, 50 ppm - STEL(15min): 125 mg/m<sup>3</sup>, 50 ppm  
 GVI/KGVI - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 TLV - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 NDS - TWA(8h): 15 mg/m<sup>3</sup> - STEL(15min): 20 mg/m<sup>3</sup>  
 TLV - TWA(8h): 50 mg/m<sup>3</sup>, 19.4 ppm - STEL(15min): 100 mg/m<sup>3</sup>, 38.8 ppm - Notes: skin  
 ESD - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 OEL - TWA(8h): 52 mg/m<sup>3</sup>, 20 ppm - STEL(15min): 104 mg/m<sup>3</sup>, 40 ppm - Notes: Skin  
 ACGIH - TWA: 52 mg/m<sup>3</sup> - STEL: 10 mg/m<sup>3</sup> - Notes: (I, H), A4 - URT irr  
 propionic acid ... % - CAS: 79-09-4  
 EU - TWA(8h): 31 mg/m<sup>3</sup>, 10 ppm - STEL: 62 mg/m<sup>3</sup>, 20 ppm  
 ACGIH - TWA(8h): 10 ppm - Notes: Eye, skin and URT irr  
**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/m<sup>3</sup> - Consumer: 89 mg/m<sup>3</sup> - 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/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects  
 Worker Industry: 950 mg/m<sup>3</sup> - Consumer: 114 mg/m<sup>3</sup> - 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  
 Sodium N-lauroylsarcosinate - CAS: 137-16-6  
 Worker Professional: 70.53 mg/m<sup>3</sup> - Consumer: 17.39 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
 Worker Professional: 20 mg/kg - Consumer: 10 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
 Consumer: 10 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects  
 ethanediol - CAS: 107-21-1  
 Worker Industry: 35 mg/m<sup>3</sup> - Consumer: 7 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects  
 Worker Industry: 106 mg/m<sup>3</sup> - Consumer: 53 mg/kg - Exposure: Human Dermal - 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

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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: 36 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: 0.72 mg/kg  
Target: Soil (agricultural) - Value: 0.63 mg/kg  
Sodium N-lauroylsarcosinate - CAS: 137-16-6  
Target: Fresh Water - Value: 0.009 mg/L  
Target: Fresh water, intermittent - Value: 0.089 mg/L  
Target: Marine water - Value: 0.001 mg/L  
Target: Marine water, intermittent - Value: 0.009 mg/L  
Target: Freshwater sediments - Value: 0.064 mg/kg  
Target: Marine water sediments - Value: 0.006 mg/kg  
Target: Microorganisms in sewage treatments - Value: 3 mg/L  
Target: Soil (agricultural) - Value: 0.008 mg/kg  
ethanediol - CAS: 107-21-1  
Target: Fresh Water - Value: 10 mg/L  
Target: Marine water - Value: 1 mg/L  
Target: Freshwater sediments - Value: 37 mg/kg  
Target: Marine water sediments - Value: 3.7 mg/kg  
Target: Aquatic, periodic release - Value: 10 mg/L  
Target: Microorganisms in sewage treatments - Value: 199.5 mg/L  
Target: Soil (agricultural) - Value: 1.53 mg/kg

### 8.2. Exposure controls

Eye protection:

Not needed for normal use.

Protection for skin:

Not needed for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

Not necessary 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:	Colourless	--	--
Odour:	characteristic perfumed	--	--
Melting point/freezing	N.A.	--	--

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point:			
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:	9.5	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	partial	--	--
Solubility in oil:	soluble	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.82 g/mL (+20°C / +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  
Vapors may form explosive mixtures with air.
- 10.4. Conditions to avoid  
Stable under normal conditions.
- 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 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



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- c) serious eye damage/irritation
    - Not classified
    - Based on available data, the classification criteria are not met
  - 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:
- 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 > 25000 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 = 117 mg/L - Duration: 4h - Notes: OCSE 403
  - g) reproductive toxicity:
    - Test: NOAEL - Route: Oral - Species: Rat > 20000 ppm - Notes: OCSE 414 (phoetal development)
- Sodium N-lauroylsarcosinate - CAS: 137-16-6
- a) acute toxicity:
    - Test: LC50 - Route: Inhalation - Species: Rat > 1-5 mg/L - Duration: 4h - Source: OECD Test Guideline 403 - Notes: Test substance: 35% Remarks: Harmful by inhalation.
    - Test: LC50 - Route: Inhalation - Species: Rat > 0.05-0.5 mg/L - Duration: 4h - Source: OECD Test Guideline 403 - Notes: Test substance: 100% Remarks: Toxic by inhalation.
    - Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: OECD Test Guideline 401
  - b) skin corrosion/irritation:
    - Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Duration: 4h - Source: OECD Test Guideline 404 - Notes: Test substance: 30%
  - c) serious eye damage/irritation:



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- Test: Eye Irritant - Species: Rabbit Positive - Source: OECD Test Guideline 405 -  
Notes: Test substance: 30%
- d) respiratory or skin sensitisation:  
Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Source: Dir. 67/548/CEE, Annex V, B.6. - Notes: Test substance: 30%
- e) germ cell mutagenicity:  
Test: Genotoxicity - Species: Salmonella Typhimurium Negative
- g) reproductive toxicity:  
Test: NOAEL - Species: Rat > 250 mg/kg/day - Source: OCSE 414 - Notes: Developmental toxicity
- i) STOT-repeated exposure:  
Test: NOAEL - Route: Oral - Species: Rat 30 mg/kg - Source: Dir. 67/548/CEE, Annex V, B.7. - Notes: Exposure Time: 90 days Number of expositions: 1x /day
- ethanediol - CAS: 107-21-1
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg  
Test: LC50 - Route: Inhalation - Species: Rat 2.5 mg/L - Duration: 6 h  
Test: LD50 - Route: Skin - Species: Mouse > 3500 mg/kg
- b) skin corrosion/irritation:  
Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Duration: 24 h
- c) serious eye damage/irritation:  
Test: Eye Irritant - Route: Eyes - Species: Rabbit Negative - Duration: 8h

### 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

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## 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

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

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### Sodium N-lauroylsarcosinate

#### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 32.1 mg/L - Duration h: 96 - Notes: OECD Test Guideline 203 Species: Danio rerio (zebra fish) semi-static Test substance: 30%

Endpoint: EC50 - Species: Daphnia 8.91 mg/L - Duration h: 48 - Notes: OECD Test Guideline 202 Species: Daphnia magna (water flea) static Test substance: 30%

#### e) Plant toxicity:

Endpoint: ErC50 - Species: Algae 79 mg/L - Duration h: 72 - Notes: OECD Test Guideline 201 Species: Desmodesmus subspicatus (green algae) static Test substance: 30%

Endpoint: EbC50 - Species: Algae 39 mg/L - Duration h: 72 - Notes: OECD Test Guideline 201 Species: Desmodesmus subspicatus (green algae) static Test substance: 30%

Endpoint: NOEC - Species: Algae 9.2 mg/L - Duration h: 72 - Notes: OECD TG 201. Species: Desmodesmus subspicatus

### ethanediol

#### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 72860 mg/L - Duration h: 96 - Notes: Species: Pimephales promelas

Endpoint: EC50 - Species: Daphnia > 100 mg/L - Duration h: 48 - Notes: Species: Daphnia magna

#### b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish 15830 mg/L - Duration h: 168 - Notes: Species: Pimephales promelas

Endpoint: NOEC - Species: Daphnia 8590 mg/L - Duration h: 168 - Notes: Species: Daphnia magna

#### c) Bacteria toxicity:

Endpoint: EC50 - Species: Bacteria > 10000 mg/L - Duration h: 16 - Notes: Species: Pseudomonas putida

#### e) Plant toxicity:

Endpoint: EC50 - Species: Algae 6500 mg/L - Duration h: 96 - Notes: 6500 - 13000 mg/L, Species Pseudokirchneriella subcapitata

### 12.2. Persistence and degradability

#### 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

#### Sodium N-lauroylsarcosinate - CAS: 137-16-6

Biodegradability: Readily biodegradable - Duration: 28 d - %: 82 - Notes: ISO 14593 Method: Directive 67/548/EEC Annex V, C.4.B.

#### ethanediol - CAS: 107-21-1

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

Biodegradability: Readily biodegradable - Test: OECD 301 - Duration: 10 d - %: 90 - Notes: 90 - 100%

### 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 -0.35

#### ethanediol - CAS: 107-21-1

Bioaccumulation: Very low bioaccumulative - Test: Kow - Partition coefficient -1.93 - Notes: Experimental value

### 12.4. Mobility in soil

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ethanediol - CAS: 107-21-1

Mobility in soil: Mobile - Notes: Source: bibliography

### 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

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## 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.

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## SECTION 14: Transport information

### 14.1. UN number or ID number

ADR-UN number: 1950

IATA-Un number: 1950

IMDG-Un number: 1950

### 14.2. UN proper shipping name

ADR-Shipping Name: AEROSOLS, flammable

IATA-Shipping Name: Aerosols, flammable

IMDG-Shipping Name: AEROSOLS

### 14.3. Transport hazard class(es)

ADR-Class: 2

ADR-Label: 2.1

IATA-Class: 2.1

IMDG-Class: 2.1

### 14.4. Packing group

### 14.5. Environmental hazards

IMDG-EMS: F-D, S-U

### 14.6. Special precautions for user

ADR-Transport category (Tunnel restriction code): D

IATA-Passenger Aircraft: Y203

IATA-Cargo Aircraft: Y203

IMDG-Shipping Name: AEROSOLS

### 14.7. Maritime transport in bulk according to IMO instruments

N.A.

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## 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)

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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  
Product belongs to category: P3a

### 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:

H220 Extremely flammable gas.  
H280 Contains gas under pressure; may explode if heated.  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H330 Fatal if inhaled.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.

Hazard class and hazard category	Code	Description
Flam. Gas 1A	2.2/1A	Flammable gas, Category 1A
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3

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Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
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

Paragraphs modified from the previous revision:

SECTION 3: Composition/information on ingredients  
 SECTION 6: Accidental release measures  
 SECTION 7: Handling and storage  
 SECTION 8: Exposure controls/personal protection  
 SECTION 9: Physical and chemical properties  
 SECTION 11: Toxicological information  
 SECTION 12: Ecological information  
 SECTION 14: Transport information  
 SECTION 15: Regulatory information  
 SECTION 16: Other information

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
Aerosols 1, H222, H229	On basis of test data

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.

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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.