Safety Data Sheet
RATIO RB-1

Safety Data Sheet dated 18/2/2019, version 1

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

1.1. Product identifier

Mixture identification

Trade name: RATIO RB-1

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

Recommended use:

Detergent for hard surfaces.

Professional use (SU22) - Washing and cleaning products (PC35)

Uses advised against:

Different uses than recommended. Do not use in combination with other products.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

SUTTER INDUSTRIES s.p.a. - Società con Unico Socio

15060 Borghetto Borbera (AL) Italia

Tel. +39 0143 631.1

Competent person responsible for the safety data sheet:

regulatory.affairs@sutter.it

1.4. Emergency telephone number

+39 0143 631.1 mon-fri 9.00/17.00

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.

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:

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements:

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

P233 Keep container tightly closed.

P264 Wash hands thoroughly after handling.

P280 Wear eye protection.

P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire, use a dry powder fire extinguisher to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.
Special Provisions:
EUH210 Only for professional use. Safety data sheet available on request.

Product contents:
anionic surfactants < 5 %
The product also contains: Perfumes
Preservatives: BENZISOTHIAZOLINONE, LAURYLAMINE DIPROPYLENEDIAMINE, SODIUM PYRITHIONE
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
Not Applicable, the product is a mixture.
3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:
>= 25% - < 30% ETHANOL
REACH No.: 01-2119457610-43, Index number: 603-002-00-5, CAS: 64-17-5, EC: 200-578-6


2.6/2 Flam. Liq. 2 H225


3.3/2 Eye Irrit. 2 H319

>= 7% - < 10% 3-BUTOXY-2-PROPANOL
REACH No.: 01-2119475527-28, Index number: 603-052-00-8, CAS: 5131-66-8, EC: 225-878-4


3.2/2 Skin Irrit. 2 H315


3.3/2 Eye Irrit. 2 H319

>= 3% - < 5% ALKYL ETHER SULFATE C12-14, SODIUM SALT
REACH No.: 01-2119488639-16, CAS: 68891-38-3, EC: 500-234-8


3.2/2 Skin Irrit. 2 H315


3.3/1 Eye Dam. 1 H318

4.1/C3 Aquatic Chronic 3 H412

>= 1% - < 3% PROPAN-2-OL
REACH No.: 01-2119457558-25, Index number: 603-117-00-0, CAS: 67-63-0, EC: 200-661-7


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% TRIETHANOLAMINE
REACH No.: 01-2119486482-31, CAS: 102-71-6, EC: 203-049-8
Substance with a Union workplace exposure limit.

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).
Remove contaminated clothing immediately and dispose off safely.
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 opthalmologist 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

Acute effects:
Skin and eye irritation for contact
Irritation interior system if swallowed.

Until revison date of this document, are unknown chronic effects from the mixture contact with skin, eyes, inhalation, ingestion.

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:
Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
In case of fire, use a dry powder fire extinguisher to extinguish.
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

The mixture does not contain ingredients classified as explosive according to EC Regulation 1272/2008 (CLP).
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.
The mixture does not contain ingredients classified as explosive according to EC Regulation 1272/2008 (CLP).

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. To converge the product in containment tanks.

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.
Contamined 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 away from sunlight.
Store in a cool and well ventilated place.
Store away from heat sources.
Do not store in open or unlabeled containers.
Always keep in a well ventilated place.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability. see also 1.2 and 7.2.
See section 10.
Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular, see paragraph 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Until the revision date of this document, no experimental data are available for the mixture. elow, listed occupational exposure limits, if available, for the components listed in paragraph 3.2.

ETHANOL - CAS: 64-17-5

EU - TWA(8h): 1920 mg/m3, 1000 ppm - Notes: WEL

ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr

PROPAN-2-OL - CAS: 67-63-0

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

TRIETHANOLAMINE - CAS: 102-71-6

EU - TWA(8h): 5 mg/m3

ACGIH - TWA(8h): 5 mg/m3 - Notes: Eye and skin irr

DNEL Exposure Limit Values

Until the revision date of this document, no experimental data are available for the mixture. Below, listed the DNEL exposure limits, if available, for the components listed in paragraph 3.2.

ETHANOL - CAS: 64-17-5

Worker Industry: 1900 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Industry: 950 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 343 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/day

3-BUTOXY-2-PROPANOL - CAS: 5131-66-8

Worker Industry: 44 mg/kg - Consumer: 16 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/day

Worker Industry: 270.5 mg/m3 - Consumer: 33.8 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 8.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: bw/day

ALKYL ETHER SULFATE C12-14, SODIUM SALT - CAS: 68891-38-3

Worker Industry: 2750 mg/kg - Consumer: 1650 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 175 mg/m3 - Consumer: 52 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 15 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PROPAN-2-OL - CAS: 67-63-0

Worker Industry: 888 mg/kg - Consumer: 319 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 500 mg/m3 - Consumer: 89 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 26 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

TRIETHANOLAMINE - CAS: 102-71-6

Worker Industry: 6.3 mg/kg - Consumer: 3.1 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/d

Worker Industry: 5 mg/m3 - Consumer: 1.25 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 13 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: bw/d
Worker Industry: 5 mg/m3 - Consumer: 1.25 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

PNEC Exposure Limit Values

Until the revision date of this document, no experimental data are available for the mixture. Below, listed the PNEC exposure limits, if available, for the components listed in paragraph 3.2.

ETHANOL - CAS: 64-17-5
- Target: Marine water - Value: 0.79 mg/l
- Target: Fresh Water - Value: 0.96 mg/l
- Target: Marine water sediments - Value: 2.9 mg/kg
- Target: Soil (agricultural) - Value: 0.63 mg/kg
- Target: Freshwater sediments - Value: 3.6 mg/kg

3-BUTOXY-2-PROPANOL - CAS: 5131-66-8
- Target: Marine water - Value: 0.0525 mg/l
- Target: Marine water sediments - Value: 0.236 mg/kg
- Target: Soil (agricultural) - Value: 0.16 mg/kg
- Target: Microorganisms in sewage treatments - Value: 10 ppm
- Target: Freshwater sediments - Value: 2.36 mg/kg

ALKYL ETHER SULFATE C12-14, SODIUM SALT - CAS: 68891-38-3
- Target: Marine water - Value: 0.024 mg/l
- Target: Microorganisms in sewage treatments - Value: 10000 mg/l
- Target: Marine water sediments - Value: 0.09168 mg/kg
- Target: Soil (agricultural) - Value: 7.5 mg/kg
- Target: Freshwater sediments - Value: 0.9168 mg/kg

PROPAN-2-OL - CAS: 67-63-0
- Target: Microorganisms in sewage treatments - Value: 2251 mg/l
- Target: Marine water sediments - Value: 552 mg/kg
- Target: Soil (agricultural) - Value: 28 mg/kg
- Target: Marine water - Value: 140.9 mg/l

TRIETHANOLAMINE - CAS: 102-71-6
- Target: Microorganisms in sewage treatments - Value: 10 mg/l
- Target: Marine water - Value: 0.032 mg/l
- Target: Soil (agricultural) - Value: 0.151 mg/kg
- Target: Marine water sediments - Value: 0.17 mg/l
- Target: Freshwater sediments - Value: 1.7 mg/kg
- Target: Fresh Water - Value: 0.32 mg/l

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.(EN 166)

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton (EN 14605 in case of splashes or EN 13982 in case of dust)

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber. (ex. EN 388 - EN 374 protection factor 6, corresponding to a breakthrough time >480 minutes).

Due to great diversity of types, observe the operating instructions of the manufacturer with respect to substances listed in paragraph 3.2.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

The product is flammable.

The product is not explosive - see paragraph 2.1. The product contains no explosive components.

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

Environmental exposure controls:

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

See also section 6.2.

Appropriate engineering controls:

No further technical checks suitable for your product under normal conditions.

See also section 1.2, section 7 and Exposure Scenario - Annex I of this document.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Clear liquid, blue	Visual	--
Odour:	Apple vinegar	Olfactory	--
Odour threshold:	Evident	Olfactory	--
pH:	10,5 +/- 0,5	Instrumental control	--
Melting point / freezing point:	Not Relevant	--	Parameter not relevant for the type of product
Initial boiling point and boiling range:	>=100°C	--	Estimated value on chemical / physical properties of components
Flash point:	29 ° C	EN ISO 3679	--
Evaporation rate:	Not Relevant	--	Parameter not relevant for the type of product
Solid/gas flammability:	Not Relevant	--	Parameter not relevant for the type of product
Upper/lower flammability or explosive limits:	Not Relevant	--	Parameter not relevant for the type of product
Vapour pressure:	Not Relevant	--	Parameter not relevant for the type of product
Vapour density:	Not Relevant	--	Parameter not relevant for the type of product
Relative density:	0.953 g/ml	Instrumental control	--
Solubility in water:	Total	--	Internal tests
Solubility in oil:	Partial	--	Internal tests
Partition coefficient (n-octanol/water):	< 1000	--	Value estimated based on the solubility of the mixture.
Auto-ignition temperature:	Not Relevant	--	Parameter not relevant for the type of product
Decomposition temperature:	Not Relevant	--	Parameter not relevant for the type of product
Viscosity:	< 10 cP	--	Estimated indicative value. Not viscous mixture.
Explosive properties:	Not Relevant	--	Parameter not relevant for

			product composition.
Oxidizing properties:	Not Relevant	--	Parameter not relevant for product composition.

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not Relevant	--	Parameter not relevant for the type of product
Fat Solubility:	Not Relevant	--	Parameter not relevant for the type of product
Conductivity:	Not Relevant	--	Parameter not relevant for the type of product
Substance Groups relevant properties	Not Relevant	--	Parameter not relevant for the type of product

SECTION 10: Stability and reactivity

10.1. Reactivity

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

10.2. Chemical stability

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

10.3. Possibility of hazardous reactions

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.
See also scetion 7.2.

10.4. Conditions to avoid

Avoid direct sunlight and exposure to heat sources.
Different uses than recommended. Do not use in combination with other products. See also 1.2 and 7.2

10.5. Incompatible materials

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability. see also 1.2 and 7.2.

10.6. Hazardous decomposition products

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

RATIO RB-1

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 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:

Below are reported, if available, the toxicological information of the components listed in paragraph 3.2.

ETHANOL - CAS: 64-17-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 6200 mg/kg - Source: OECD401

Test: LC50 - Route: Inhalation - Species: Rat > 50 mg/m3 - Source: OECD403

Test: LD50 - Route: Skin - Species: Rabbit = 20 g/kg

c) serious eye damage/irritation:

Test: Eye Irritant Positive - Source: OECD405 - Notes: Conc. >=50%

3-BUTOXY-2-PROPANOL - CAS: 5131-66-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 3300 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 3.5 mg/l - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin Yes

c) serious eye damage/irritation:

Test: Eye Irritant Yes

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin No

i) STOT-repeated exposure:

Test: Repeated exposure No

ALKYL ETHER SULFATE C12-14, SODIUM SALT - CAS: 68891-38-3

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Source: OECD 402

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: OECD 401

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Positive - Source: OECD 404

c) serious eye damage/irritation:

Test: Eye Corrosive - Species: Rabbit Positive - Source: OECD 405

d) respiratory or skin sensitisation:

Test: Skin or Resp. Sensitization Negative - Source: OECD 406

e) germ cell mutagenicity:

Test: Mutagenesis Negative - Source: Ames Test

PROPAN-2-OL - CAS: 67-63-0

a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 10000 ppm - Duration: 6h
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit No - Source: OECD 404
c) serious eye damage/irritation:
Test: Eye Corrosive - Species: Rabbit Yes - Source: OECD 405
d) respiratory or skin sensitisation:
Test: Skin or Resp. Sensitization Negative
e) germ cell mutagenicity:
Test: Mutagenesis Negative
g) reproductive toxicity:
Test: NOAEL - Route: Oral - Species: Rabbit = 480 mg/kg
TRIETHANOLAMINE - CAS: 102-71-6
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 6400 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Test: LC0 - Route: Inhalation - Species: Rat = 1.8 mg/m3 - Duration: 8h
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Negative
c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit Negative
d) respiratory or skin sensitisation:
Test: Skin or Resp. Sensitization Negative
e) germ cell mutagenicity:
Test: Mutagenesis Negative
f) carcinogenicity:
Test: NOAEL - Route: Skin - Species: Rat = 250 mg/kg bw/d - Source: OCSE 451 - Notes: 103 weeks (daily, 5 days/week)

SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
Until the revision date of this document, are not available experimental data on the mixture.
Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.
RATIO RB-1
Not classified for environmental hazards
Based on available data, the classification criteria are not met
ETHANOL - CAS: 64-17-5
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Algae = 275 mg/l - Duration h: 72 - Notes: Chlorella vulgaris
Endpoint: LC50 - Species: Fish = 13000 mg/l - Duration h: 96 - Notes: Salmo gairdneri
Endpoint: EC50 - Species: Daphnia = 12340 mg/l - Duration h: 48 - Notes: Daphnia magna
3-BUTOXY-2-PROPANOL - CAS: 5131-66-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 560 mg/l - Duration h: 96 - Notes: Poecilia reticulata
Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: Daphnia magna
Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 96 - Notes: Pseudokirchneriella subcapitata
c) Bacteria toxicity:

Endpoint: EC50 - Species: Microorganisms / Effect on activated sludge: > 1000 mg/l - Duration h: 3

e) Plant toxicity:

Endpoint: NOEC - Species: Algae = 560 mg/l - Duration h: 96 - Notes: Pseudokirchneriella subcapitata

ALKYL ETHER SULFATE C12-14, SODIUM SALT - CAS: 68891-38-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 10 mg/l - Notes: Leuciscus idus
Endpoint: EC50 - Species: Daphnia > 10 mg/l - Notes: Daphnia magna
Endpoint: EC50 - Species: Algae > 100 mg/l - Notes: Scenedesmus subspicatus

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish > 1 mg/l - Notes: Leuciscus idus
Endpoint: NOEC - Species: Daphnia > 0.1 mg/l - Notes: Daphnia magna

c) Bacteria toxicity:

Endpoint: EC0 - Species: Microorganisms / Effect on activated sludge: > 100 mg/l - Notes: Pseudomonas putida

PROPAN-2-OL - CAS: 67-63-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 9640 mg/l - Duration h: 48 - Notes: Pimephales promelas
Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 24 - Notes: Daphnia magna
Endpoint: EC50 - Species: Algae = 1800 mg/l - Duration h: 168 - Notes: Scenedesmus quadricauda

TRIETHANOLAMINE - CAS: 102-71-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 10000 mg/l - Duration h: 48 - Notes: Leuciscus idus
Endpoint: EC50 - Species: Daphnia = 609.88 mg/l - Duration h: 48 - Notes: Ceriodaphnia dubia
Endpoint: EC50 - Species: Algae = 512 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 16 mg/l - Duration h: 504 - Notes: Daphnia magna

c) Bacteria toxicity:

Endpoint: IC50 - Species: Microorganisms / Effect on activated sludge: > 1000 mg/l - Duration h: 3

d) Terrestrial toxicity:

Endpoint: LC50 = 33300 mg/l - Duration h: 72 - Notes: Drosophila melanogaster

12.2. Persistence and degradability

Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.

ETHANOL - CAS: 64-17-5

Biodegradability: Readily biodegradable

3-BUTOXY-2-PROPANOL - CAS: 5131-66-8

Biodegradability: Readily biodegradable - Duration: 28 days - %: 90 - Notes: OECD 30

ALKYL ETHER SULFATE C12-14, SODIUM SALT - CAS: 68891-38-3

Biodegradability: Readily biodegradable

The surfactant(s) contained in this preparation complies with the biodegradability criteria laid down in Regulation (EC) No 648/2004 on detergents. All supporting data are kept available to the competent authorities of the Member States and will be provided to those authorities if they so request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.
ETHANOL - CAS: 64-17-5
Bioaccumulation: Slightly bioaccumulative - Test: Kow - Partition coefficient -0.31
3-BUTOXY-2-PROPANOL - CAS: 5131-66-8
Bioaccumulation: Slightly bioaccumulative - Test: BCF - Bioconcentrantion factor - Notes: <100

12.4. Mobility in soil
Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.
3-BUTOXY-2-PROPANOL - CAS: 5131-66-8
Mobility in soil: Mobile

12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
Until the revision date of this document, unknown adverse effects and symptoms towards the environment.

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. Do not discharge into the ground or into drains.
See also section 6

SECTION 14: Transport information

14.1. UN number

ADR-UN Number:	1993
IATA-UN Number:	1993
IMDG-UN Number:	1993

14.2. UN proper shipping name

ADR-Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ETHANOL, PROPAN-2-OL)
IATA-Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ETHANOL, PROPAN-2-OL)
IMDG-Shipping Name:	FLAMMABLE LIQUID, N.O.S. (ETHANOL, PROPAN-2-OL)

14.3. Transport hazard class(es)

ADR-Class:	3
ADR - Hazard identification number:	30
IATA-Class:	3
ADR/IATA/IMDG-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-Enviromental Pollutant: No
IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Subsidiary risks: -
ADR-S.P.: 274 601
ADR-Transport category (Tunnel restriction code): 3 (D/E)
IATA-Passenger Aircraft: 355
IATA-Subsidiary risks: -
IATA-Cargo Aircraft: 366
IATA-S.P.: -
IATA-ERG: 3L
IMDG-SP 223 274 955
IMDG-EmS: F-E , S-E
IMDG-Subsidiary risks: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

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, for instructions on safe mangling you see Sections 7 and 8 and the exposure scenario - Annex I of this document.
No Chemical Safety Assessment has been carried out for the mixture.
Substances for which a Chemical Safety Assessment has been carried out:

None

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
H336 May cause drowsiness or dizziness.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
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
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
Flam. Liq. 3, H226	On basis of test data
Skin Irrit. 2, H315	Calculation method
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.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EC0/10/20/50/100:	Effective concentration, for 0/10/20/50/100 percent of test population.
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.
LC0/10/20/50/100:	Lethal concentration, for 0/10/20/50/100 percent of test population.
LD0/10/20/50/100:	Lethal dose, for 0/10/20/50/100 percent of test population.
NOEC:	No Observed Effect Concentration
NOAEL(R)/NOAEC:	No Observed Adverse Effect Level(Repeated)/Concentration
OECD:	Organisation for Economic Co-operation and Development
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.

ANNEX I
PROFESSIONAL TRIGGER PRODUCT – DETERGENT FOR HARD SURFACES

Title of exposure scenario	
Detergent for general cleaning: Manual process.	
Use description	
Sector Use	SU22 – Professional use
Product Category	PC35 – Washing and cleaning products (including solvent based products)
Description of activities/process considered on exposure scenario.	
If required, transfer product from canister to trigger bottle.	
Use following the use instruction as specified on the label.	
Leave on.	
Rinse, if necessary.	
Frequency and duration	
Use phase	Daily, depending on room size and room dirty conditions.
Relevant limit values of ingredients, if available, are stated in section 8 of the SDS.	
Physical appearence and concentration	
Liquid. To diluite or ready to use.	
In section 2 of the SDS of product and on the label the classification of mixture is provided.	
Mixture classification is based on ingredients classification and on chemical/physical properties stated in section 9 of the SDS of product.	
Use conditions	
Room temperature	
Good general ventilation at workplace is sufficient.	
Protection	
Avoid spray inhalation.	
See section 8 of the SDS of product to more information on PPE.	Training of worker to use and maintenance of PPE is supposed.
Don’t eat or drink, don’t smoke.	Avoid contact with damaged skin.
No open flame.	Do not use in combination with other products
Wash hand after use.	
In case of accidental release: dilute with water and dry.	
See section 6 of the SDS in case of accidental release	
Follow use instruction as specified on the label or on technical sheet. Use good occupational hygiene practices as specified in section 7 on the SDS.	
Environmental measures	
See section 6 of the SDS in case of accidental release	
See section 12 of the SDS for ecotoxicological information of mixture and dangerous ingredients.	
See section 13 of the SDS for disposal considerations.	

Note:

SDS: Safety Data Sheet

PPE: Personal Protection Equipment