Safety Data Sheet
RATIO BK-3

Safety Data Sheet dated 14/12/2022, version 2

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

1.1. Product identifier

Mixture identification

Trade name: RATIO BK-3

UFI: PF73-4040-N007-M7P0

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, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash hands thoroughly after handling.

P280 Wear eye protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

Special Provisions:

EUH210 Only for professional use. Safety data sheet available on request.

Product contents:

anionic surfactants, non-ionic surfactants < 5 %

The product also contains: Perfumes

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

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

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:

>= 15% - < 20% CITRIC ACID MONOHYDRATE

REACH No.: 01-2119457026-42, CAS: 5949-29-1, EC: 201-069-1

3.3/2 Eye Irrit. 2 H319

3.8/3 STOT SE 3 H335

>= 3% - < 5% 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

>= 1% - < 3% 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

Specific Concentration Limits:
5% <= C < 10%: Eye Irrit. 2 H319
C >= 10%: Eye Dam. 1 H318

>= 1% - < 3% 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

Specific Concentration Limits:
C >= 50%: Eye Irrit. 2 H319

>= 1% - < 3% ALKYL POLYGLYCOL ETHER C10-16

CAS: 69227-22-1


3.3/1 Eye Dam. 1 H318


3.1/4/Oral Acute Tox. 4 H302

Specific Concentration Limits:
0% <= C < 10,01%: Eye Irrit. 2 H319
C >= 10,01%: Eye Dam. 1 H318

>= 0.1% - < 0.25% 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

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:
Water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

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

For non emergency personnel:
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
For emergency responders:
Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water. 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.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Store away from sunlight.
Store in a cool and well ventilated place.
Do not store in open or unlabeled containers.
Store away from heat sources.
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.
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

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

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.
3-BUTOXY-2-PROPANOL - CAS: 5131-66-8
Worker Industry: 52 mg/kg - Consumer: 22 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/day
Worker Industry: 147 mg/m3 - Consumer: 43 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 12.5 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
ETHANOL - CAS: 64-17-5
Worker Industry: 1900 mg/m3 - Consumer: 950 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 950 mg/m3 - Consumer: 114 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 343 mg/kg - Consumer: 206 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/day
Consumer: 87 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

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.

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1
- Target: Marine water - Value: 0.044 mg/l
- Target: Fresh Water - Value: 0.44 mg/l
- Target: Marine water sediments - Value: 34.6 mg/kg
- Target: Freshwater sediments - Value: 3.46 mg/kg
- Target: Soil (agricultural) - Value: 33.1 mg/kg
- Target: Microorganisms in sewage treatments - Value: 1001 mg/l

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
- Target: Fresh Water - Value: 0.525 mg/l

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

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

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

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 not flammable or 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:

The product is not dangerous for the environment - see section 2.1.

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

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:
Physical state:	Liquid	Visual	--
Colour:	red	Visual	--
Odour:	Fruity	Olfactory	--
Odour threshold:	Evident	Olfactory	--
Melting point/freezing point:	Not Relevant	--	Parameter not relevant for the type of product
Boiling point or initial boiling point and boiling range:	>=100°C	--	Estimated value on chemical / physical properties of components
Flammability:	non-flammable	--	Estimated parameter on chemical / physical properties of components.
Lower and upper explosion limit:	Not Relevant	--	Parameter not relevant for the type of product
Flash point:	>60 ° C	EN ISO 3679	--
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
pH:	>2,1	Instrumental control	--
Kinematic viscosity:	Not Relevant	--	Parameter not relevant. Not viscous mixture.
Solubility in water:	Total	--	Internal tests
Solubility in oil:	Partial	--	Internal tests
Partition coefficient n-octanol/water (log value):	< 1000	--	Value estimated based on the solubility of the mixture.
Vapour pressure:	Not Relevant	--	Parameter not relevant for the type of product
Density and/or relative density:	1.083 g/ml	Instrumental control	--
Relative vapour density:	Not Relevant	--	Parameter not relevant for the type of product
Particle characteristics:			
Particle size (average and range)	Not Relevant	--	Parameter not relevant for the type of product

9.2. Other information

No other relevant information

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.

Do not use in combination with other products.

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.
Do not use in combination with other products.

SECTION 11: Toxicological information

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

Toxicological information of the product:

RATIO BK-3

a) acute toxicity

Not classified
Based on available data, the classification criteria are not met

b) skin corrosion/irritation

Not classified
Based on available data, the classification criteria are not met

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

d) respiratory or skin sensitisation

Not classified
Based on available data, the classification criteria are not met

e) germ cell mutagenicity

Not classified
Based on available data, the classification criteria are not met

f) carcinogenicity

Not classified
Based on available data, the classification criteria are not met

g) reproductive toxicity

Not classified
Based on available data, the classification criteria are not met

h) STOT-single exposure

Not classified
Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified
Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified
Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

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

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 5400 mg/kg
Test: LD50 - Route: Skin > 2000 mg/kg
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin IRR
c) serious eye damage/irritation:
Test: Eye Irritant Positive
d) respiratory or skin sensitisation:
Test: Skin or Resp. Sensitization Negative
e) germ cell mutagenicity:
Test: Mutagenesis Negative - Source: Ames Test
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
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%
ALKYL POLYGLYCOL ETHER C10-16 - CAS: 69227-22-1
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 500 mg/kg
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
ETHANOL - CAS: 64-17-5
LD50 (RABBIT) ORAL: 6300 MG/KG
LD50 (RAT) ORAL SINGLE DOSE: 7060 MG/KG

11.2. Information on other hazards
Endocrine disrupting properties:
No endocrine disruptor substances present in concentration >= 0.1%

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 BK-3
Not classified for environmental hazards
Based on available data, the classification criteria are not met

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 440 mg/l - Duration h: 48 - Notes: Leuciscus idus melanotus
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Algae = 425 mg/l - Duration h: 192

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

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

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae = 3240 mg/l - Duration h: 120 - Notes: Skeletonema costatum

ALKYL POLYGLYCOL ETHER C10-16 - CAS: 69227-22-1

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1 mg/l - Duration h: 96 - Notes: Brachydanio rerio
Endpoint: EC50 - Species: Algae > 1 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus
Endpoint: EC50 - Species: Daphnia > 1 mg/l - Duration h: 24 - Notes: Daphnia magna

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

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.

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1

Biodegradability: Readily biodegradable - Duration: 28 days - %: 97

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

ETHANOL - CAS: 64-17-5

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.

CITRIC ACID MONOHYDRATE - CAS: 5949-29-1

Bioaccumulation: Slightly bioaccumulative - Test: Log Pow - Partition coefficient -1.67

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

Bioaccumulation: Slightly bioaccumulative - Test: Log Pow - Partition coefficient 1.2

ETHANOL - CAS: 64-17-5

Bioaccumulation: Slightly bioaccumulative - Test: Kow - Partition coefficient -0.31

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. Endocrine disrupting properties
No endocrine disruptor substances present in concentration >= 0.1%
12.7. 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. 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 or ID number
Not classified as dangerous in the meaning of transport regulations.
14.2. UN proper shipping name
Not applicable
14.3. Transport hazard class(es)
Not applicable
14.4. Packing group
Not applicable
14.5. Environmental hazards
ADR-Enviromental Pollutant: No
IMDG-Marine pollutant: No
14.6. Special precautions for user
Not applicable
14.7. Maritime transport in bulk according to IMO instruments
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) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
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
None

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.
A Chemical Safety Assessment has been carried out for the mixture.
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:
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H336 May cause drowsiness or dizziness.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
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

This safety data sheet has been completely updated in compliance to Regulation 2020/878.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Eye Irrit. 2, H319	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
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