Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

Transition document following GB exit from the EU

Cyclon Bionet Chain Cleaner

Version number: 3.0
Replaces version of: 2023-02-28 (2)

Revision: 2024-12-13

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

1.1 Product identifier

Trade name: **Cyclon Bionet Chain Cleaner**

Unique formula identifier (UFI): 7600-S0YY-000M-0KTU

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

Relevant identified uses:
Detergent
Degreaser
Professional use
Consumer use

1.3 Details of the supplier of the safety data sheet

CyclOn B.V.
Scheltseweg 4c
5374 EB Schaijk
Netherlands

Telephone: (+31) 085 0204 122
e-mail: sales@cyclon.nl
Website: www.cyclon.nl

e-mail (competent person): sales@cyclon.nl

1.4 Emergency telephone number

Emergency information service: (+31) 085 0204 122
This number is only available during the following office hours: Mon-Fri 09:00 - 16:30

Poison centre

Country	Name	Telephone
United Kingdom	National Poisons Information Service (NPIS)	0344-8920111 (medical professionals only)
United Kingdom	NHS (general public)	non-emergency: 111 or a doctor; emergency: 999

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (acc. to GB CLP)

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.4S	skin sensitisation	1	Skin Sens. 1	H317
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of H-phrases: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling (acc. to GB CLP)

- signal word: Danger

- pictograms

GHS05, GHS07

- hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

- precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- hazardous ingredients for labelling

Contains: Alcohols, C9-11-branched, ethoxylated; 2-octyl-2H-isothiazol-3-one.

2.3 Other hazards

This material is combustible, but will not ignite readily.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

The product does not contain (other) ingredients which are classified according to present knowledge of the supplier and contribute to the classification of the product and hence require reporting in this section.

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
2-butoxyethanol	CAS No 111-76-2 EC No 203-905-0 Index No 603-014-00-0	10 – < 25	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319		

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
sodium carbonate	CAS No 497-19-8 EC No 207-838-8 Index No 011-005-00-2	2.5 – < 10	Eye Irrit. 2 / H319		
Isotridecanol, ethoxylated	CAS No 69011-36-5 EC No 500-241-6	2.5 – < 10	Aquatic Acute 1 / H400 Aquatic Chronic 3 / H412		
Alcohols, C9-11-branched, ethoxylated	CAS No 169107-21-5 EC No 682-176-4	2.5 – < 10	Acute Tox. 4 / H302 Eye Dam. 1 / H318		
2-octyl-2H-isothiazol-3-one	CAS No 26530-20-1 EC No 247-761-7 Index No 613-112-00-5	< 0.1	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 2 / H330 Skin Corr. 1 / H314 Eye Dam. 1 / H318 Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 EUH071		
Bronopol	CAS No 52-51-7 EC No 200-143-0 Index No 603-085-00-8		Acute Tox. 3 / H301 Acute Tox. 4 / H312 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		

Name of substance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
2-butoxyethanol	CAS No 111-76-2 EC No 203-905-0	-	-	1,200 $^{mg}/_{kg}$ 3 $^{mg}/_{l}$/4h	oral inhalation: vapour
Alcohols, C9-11-branched, ethoxylated	CAS No 169107-21-5 EC No 682-176-4	-	-	500 $^{mg}/_{kg}$	oral
2-octyl-2H-isothiazol-3-one	CAS No 26530-20-1 EC No 247-761-7	Skin Sens. 1A; H317: C ≥ 0.0015 %	M-factor (acute) = 100 M-factor (chronic) = 100	125 $^{mg}/_{kg}$ 311 $^{mg}/_{kg}$ 0.5 $^{mg}/_{l}$/4h 0.27 $^{mg}/_{l}$/4h	oral dermal inhalation: vapour inhalation: dust/mist
Bronopol	CAS No 52-51-7 EC No 200-143-0	-	M-factor (acute) = 100 M-factor (chronic) = 10	211 $^{mg}/_{kg}$ 1,100 $^{mg}/_{kg}$ ≥0.588 $^{mg}/_{l}$/4h	oral dermal inhalation: dust/mist

Remarks

All the percentages given are percentages by weight unless stated otherwise. For full text of H-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. Call a POISON CENTER/doctor.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison centre.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray; Alcohol resistant foam; Dry extinguishing powder; Carbon dioxide (CO2);
Co-ordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire hazardous fumes/smoke could be produced. Carbon monoxide (CO). Carbon dioxide (CO2).

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- flammability hazards

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

- incompatible substances or mixtures

Keep away from alkalis, oxidising substances, acids.

Control of effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight. Frost.

Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

- packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
GB	2-butoxyethanol	111-76-2	WEL	25	123	50	246	H	EH40/2005

Notation

H	absorbed through the skin
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Biological limit values

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
GB	2-butoxyethanol	2-butoxyacetic acid	crea	BMGV	240 mmol/mol	EH40/2005

Notation

crea	creatinine

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2-butoxyethanol	111-76-2	DNEL	125 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	89 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	75 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	89 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	98 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	1,091 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	246 mg/m³	human, inhalatory	worker (industry)	acute - local effects

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Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2-butoxyethanol	111-76-2	DNEL	59 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	426 mg/m³	human, inhalatory	consumer (private households)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	147 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
2-butoxyethanol	111-76-2	DNEL	6.3 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	26.7 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects
sodium carbonate	497-19-8	DNEL	10 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
sodium carbonate	497-19-8	DNEL	10 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
sodium carbonate	497-19-8	DNEL	10 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects
Isotridecanol, ethoxylated	69011-36-5	DNEL	37 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Isotridecanol, ethoxylated	69011-36-5	DNEL	263 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Isotridecanol, ethoxylated	69011-36-5	DNEL	6.53 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
Isotridecanol, ethoxylated	69011-36-5	DNEL	93.8 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
Isotridecanol, ethoxylated	69011-36-5	DNEL	2.5 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Bronopol	52-51-7	DNEL	3.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Bronopol	52-51-7	DNEL	10.5 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Bronopol	52-51-7	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
Bronopol	52-51-7	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	acute - local effects
Bronopol	52-51-7	DNEL	2 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Bronopol	52-51-7	DNEL	6 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
Bronopol	52-51-7	DNEL	8 µg/cm²	human, dermal	worker (industry)	chronic - local effects
Bronopol	52-51-7	DNEL	8 µg/cm²	human, dermal	worker (industry)	acute - local effects
Bronopol	52-51-7	DNEL	0.6 mg/m³	human, inhalatory	consumer (private households)	chronic - systemic effects
Bronopol	52-51-7	DNEL	1.8 mg/m³	human, inhalatory	consumer (private households)	acute - systemic effects
Bronopol	52-51-7	DNEL	0.6 mg/m³	human, inhalatory	consumer (private households)	chronic - local effects

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Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Bronopol	52-51-7	DNEL	0.6 mg/m³	human, inhalatory	consumer (private households)	acute - local effects
Bronopol	52-51-7	DNEL	0.7 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
Bronopol	52-51-7	DNEL	2.1 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects
Bronopol	52-51-7	DNEL	4 µg/cm²	human, dermal	consumer (private households)	chronic - local effects
Bronopol	52-51-7	DNEL	4 µg/cm²	human, dermal	consumer (private households)	acute - local effects
Bronopol	52-51-7	DNEL	0.18 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Bronopol	52-51-7	DNEL	0.5 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects

Relevant PNECs of components

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
2-butoxyethanol	111-76-2	PNEC	9.1 mg/l	aquatic organisms	water	intermittent release
2-butoxyethanol	111-76-2	PNEC	8.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	0.88 mg/l	aquatic organisms	marine water	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	463 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	34.6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	3.46 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	2.33 mg/kg	terrestrial organisms	soil	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	0.015 mg/l	aquatic organisms	water	intermittent release
Isotridecanol, ethoxylated	69011-36-5	PNEC	4.36 µg/l	aquatic organisms	freshwater	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	0.436 µg/l	aquatic organisms	marine water	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	4.35 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	0.119 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	0.012 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Isotridecanol, ethoxylated	69011-36-5	PNEC	0.021 mg/kg	terrestrial organisms	soil	short-term (single instance)

Relevant PNECs of components						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
2-octyl-2H-isothiazol-3-one	26530-20-1	PNEC	2.2 µg/l	aquatic organisms	freshwater	short-term (single instance)
2-octyl-2H-isothiazol-3-one	26530-20-1	PNEC	0.22 µg/l	aquatic organisms	marine water	short-term (single instance)
2-octyl-2H-isothiazol-3-one	26530-20-1	PNEC	47.5 µg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-octyl-2H-isothiazol-3-one	26530-20-1	PNEC	4.75 µg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-octyl-2H-isothiazol-3-one	26530-20-1	PNEC	8.2 µg/kg	terrestrial organ-isms	soil	short-term (single instance)
Bronopol	52-51-7	PNEC	0.003 mg/l	aquatic organisms	water	intermittent release
Bronopol	52-51-7	PNEC	0.001 mg/l	aquatic organisms	freshwater	short-term (single instance)
Bronopol	52-51-7	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
Bronopol	52-51-7	PNEC	0.43 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Bronopol	52-51-7	PNEC	0.021 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Bronopol	52-51-7	PNEC	0.009 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Bronopol	52-51-7	PNEC	0.21 mg/kg	terrestrial organ-isms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation. Provide eyewash stations and safety showers at the workplace.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection

Skin protection

Chemical protective clothing.

Hand protection

Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- type of material

Nitrile rubber

- material thickness

Use gloves with a minimum material thickness: ≥ 0.38 mm.

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >480 minutes (permeation: level 6).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	blue
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	106 °C
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	LEL: UEL: not relevant
Flash point	69 °C
Auto-ignition temperature	238 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	no data available
pH (value)	10 – 11 (in aqueous solution: 100 vol%)
Kinematic viscosity	not determined

Solubility

Water solubility	miscible in any proportion

Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	2,299 Pa at 20 °C 12.12 kPa at 50 °C

Density and/or relative density

Density	1,030 – 1,060 $^{kg}/_{m^3}$ at 20 °C
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics

Miscibility	Completely miscible with water.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidisers. Strong acids and bases.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

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Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
2-butoxyethanol	111-76-2	oral	1,200 $^{mg}/_{kg}$
2-butoxyethanol	111-76-2	inhalation: vapour	3 $^{mg}/_{l}$/4h
Alcohols, C9-11-branched, ethoxylated	169107-21-5	oral	500 $^{mg}/_{kg}$
2-octyl-2H-isothiazol-3-one	26530-20-1	oral	125 $^{mg}/_{kg}$
2-octyl-2H-isothiazol-3-one	26530-20-1	dermal	311 $^{mg}/_{kg}$
2-octyl-2H-isothiazol-3-one	26530-20-1	inhalation: vapour	0.5 $^{mg}/_{l}$/4h
2-octyl-2H-isothiazol-3-one	26530-20-1	inhalation: dust/mist	0.27 $^{mg}/_{l}$/4h
Bronopol	52-51-7	oral	211 $^{mg}/_{kg}$
Bronopol	52-51-7	dermal	1,100 $^{mg}/_{kg}$
Bronopol	52-51-7	inhalation: dust/mist	≥0.588 $^{mg}/_{l}$/4h

Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2-butoxyethanol	111-76-2	dermal	LD50	>2,000 $^{mg}/_{kg}$	rat
2-butoxyethanol	111-76-2	oral	LD50	1,414 $^{mg}/_{kg}$	guinea pig
sodium carbonate	497-19-8	oral	LD50	2,800 $^{mg}/_{kg}$	rat
sodium carbonate	497-19-8	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit
Isotridecanol, ethoxylated	69011-36-5	oral	LD50	>2,000 $^{mg}/_{kg}$	rat
Isotridecanol, ethoxylated	69011-36-5	dermal	LD50	5,960 $^{mg}/_{kg}$	rabbit
2-octyl-2H-isothiazol-3-one	26530-20-1	oral	LD50	125 $^{mg}/_{kg}$	rat
Bronopol	52-51-7	inhalation: dust/mist	LC50	≥0.588 $^{mg}/_{l}$/4h	rat
Bronopol	52-51-7	oral	LD50	211 $^{mg}/_{kg}$	rat
Bronopol	52-51-7	dermal	LD50	>2,000 $^{mg}/_{kg}$	rat

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-butoxyethanol	111-76-2	LC50	1,474 mg/l	fish	96 h
2-butoxyethanol	111-76-2	EC50	1,550 mg/l	aquatic invertebrates	48 h
2-butoxyethanol	111-76-2	ErC50	1,840 mg/l	algae	72 h
2-butoxyethanol	111-76-2	NOEC	88 mg/l	algae	72 h
2-butoxyethanol	111-76-2	growth (EbCx) 10%	308 mg/l	algae	72 h
2-butoxyethanol	111-76-2	growth rate (ErCx) 10%	679 mg/l	algae	72 h
sodium carbonate	497-19-8	LC50	300 mg/l	fish	96 h
sodium carbonate	497-19-8	EC50	227 mg/l	aquatic invertebrates	48 h
sodium carbonate	497-19-8	NOEC	560 mg/l	fish	96 h
Isotridecanol, ethoxylated	69011-36-5	EC50	1.5 mg/l	aquatic invertebrates	48 h
Isotridecanol, ethoxylated	69011-36-5	LL50	>1.5 mg/l	fish	96 h
Isotridecanol, ethoxylated	69011-36-5	EL50	0.64 mg/l	aquatic invertebrates	48 h
Isotridecanol, ethoxylated	69011-36-5	ErC50	3.4 mg/l	algae	72 h
Isotridecanol, ethoxylated	69011-36-5	growth rate (ErCx) 10%	1.328 mg/l	algae	72 h
2-octyl-2H-isothiazol-3-one	26530-20-1	LC50	0.122 mg/l	fish	96 h
2-octyl-2H-isothiazol-3-one	26530-20-1	ErC50	0.15 mg/l	algae	96 h
Bronopol	52-51-7	LC50	11 mg/l	fish	96 h
Bronopol	52-51-7	EC50	1.4 mg/l	aquatic invertebrates	48 h
Bronopol	52-51-7	ErC50	0.026 mg/l	algae	72 h
Bronopol	52-51-7	NOEC	>20 mg/l	fish	96 h
Bronopol	52-51-7	growth rate (ErCx) 10%	0.013 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-butoxyethanol	111-76-2	EC50	297 mg/l	aquatic invertebrates	21 d
2-butoxyethanol	111-76-2	NOEC	100 mg/l	aquatic invertebrates	21 d
2-butoxyethanol	111-76-2	growth (EbCx) 10%	134 mg/l	aquatic invertebrates	21 d
sodium carbonate	497-19-8	LC50	405 mg/l	fish	25 h
sodium carbonate	497-19-8	LOEC	250 mg/l	fish	5 d
Isotridecanol, ethoxylated	69011-36-5	NOEC	218 µg/l	aquatic invertebrates	21 d
Isotridecanol, ethoxylated	69011-36-5	growth (EbCx) 10%	278 µg/l	aquatic invertebrates	21 d
Bronopol	52-51-7	LC50	35.7 mg/l	fish	96 d
Bronopol	52-51-7	EC50	0.88 mg/l	aquatic invertebrates	21 d
Bronopol	52-51-7	NOEC	2.61 mg/l	fish	28 d
Bronopol	52-51-7	LOEC	0.88 mg/l	aquatic invertebrates	21 d
Bronopol	52-51-7	growth (EbCx) 20%	2 mg/l	microorganisms	150 min

12.2 Persistence and degradability

Degradability of components					
Name of substance	CAS No	Process	Degradation rate	Time	Method
2-butoxyethanol	111-76-2	carbon dioxide generation	18.3 %	3 d	
Isotridecanol, ethoxylated	69011-36-5	carbon dioxide generation	75 %	28 d	
Isotridecanol, ethoxylated	69011-36-5	DOC removal	82 %	28 d	
Bronopol	52-51-7	carbon dioxide generation	20 %	28 d	

12.3 Bioaccumulative potential

Bioaccumulative potential of components				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
2-butoxyethanol	111-76-2		0.81 (pH value: 7, 25 °C)	
Isotridecanol, ethoxylated	69011-36-5	12.7		
2-octyl-2H-isothiazol-3-one	26530-20-1		2.61 (pH value: 7, 25 °C)	
Bronopol	52-51-7		0.15 (pH value: 4.9, 23 °C)	

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number	not subject to transport regulations
14.2 UN proper shipping name	not relevant
14.3 Transport hazard class(es)	none
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

No data available.

Additional information for each of the UN Model Regulations

International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Water Framework Directive (WFD)

List of pollutants (WFD)

Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
2-butoxyethanol	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	
2-octyl-2H-isothiazol-3-one	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	
Bronopol	Organohalogen compounds and substances which may form such compounds in the aquatic environment		a)	
sodium carbonate	Metals and their compounds		a)	

Legend

a) Indicative list of the main pollutants

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

None of the ingredients are listed.

Regulation 648/2004/EC on detergents

Labelling of contents

Wt%	Constituents
≥15% - <30%	non-ionic surfactants
	preservation agents (OCTYLISOTHIAZOLINONE, 2-BROMO-2-NITROPROPANE-1,3-DIOL)

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

None of the ingredients are listed.

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name	Name acc. to inventory	Conditions of restriction	No
Cyclon Bionet Chain Cleaner	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	R3	3

Legend

R3

1. Shall not be used in:
— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
— tricks and jokes,
— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
2. Articles not complying with paragraph 1 shall not be placed on the market.
3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
— can be used as fuel in decorative oil lamps for supply to the general public, and,
— present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the British Standard Specification on Decorative oil lamps (BS EN 14059) adopted by the British Standards Institute.
5. Without prejudice to the implementation of other legislation relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010 'Just a sip of lamp oil
— or even sucking the wick of lamps
— may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as
follows: 'Just a sip of grill lighter may lead to life-threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the Agency.

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
2.2	- hazardous ingredients for labelling: Contains: Alcohols, C9-11-branched, ethoxylated; octhilinone.	- hazardous ingredients for labelling: Contains: Alcohols, C9-11-branched, ethoxylated; 2-octyl-2H-isothiazol-3-one.
2.3	Results of PBT and vPvB assessment: Does not contain any substances that are assessed to be PBT or vPvB ≥ 0.1%.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.
2.3	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.
3.2		Mixtures:

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Replaces version of: 2023-02-28 (2)
Revision: 2024-12-13

Section	Former entry (text/value)	Actual entry (text/value)
		change in the listing (table)
3.2		Mixtures: change in the listing (table)
7.3	Specific end use(s): There is no additional information.	Specific end use(s): See section 1.2.
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1		Relevant DNELs of components of the mixture: change in the listing (table)
8.1		Relevant PNECs of components: change in the listing (table)
8.2	Appropriate engineering controls: General ventilation.	Appropriate engineering controls: General ventilation. Provide eyewash stations and safety showers at the workplace.
8.2	- other protection measures: Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling. Provide eyewash stations and safety showers at the workplace.	- other protection measures: Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.
8.2	Respiratory protection: In case of inadequate ventilation wear respiratory protection.	Respiratory protection: In case of inadequate ventilation wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).
9.1		Evaporation rate: not determined
9.2	Other information: There is no additional information.	Other information
11.1	Acute toxicity of components of the mixture	
11.1		Acute toxicity estimate (ATE) of components: change in the listing (table)
11.1		Acute toxicity of components: change in the listing (table)
11.2	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.
12.1		Aquatic toxicity (acute) of components of the mixture: change in the listing (table)
12.1		Aquatic toxicity (chronic) of components of the mixture: change in the listing (table)
12.2		Degradability of components: change in the listing (table)
12.3		Bioaccumulative potential of components: change in the listing (table)
12.5	Results of PBT and vPvB assessment: Does not contain any substances that are assessed to be PBT or vPvB ≥ 0.1%.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.
12.6	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

Section	Former entry (text/value)	Actual entry (text/value)
15.1		List of pollutants (WFD): change in the listing (table)
15.1		Labelling of contents: change in the listing (table)
16		Abbreviations and acronyms: change in the listing (table)
16		List of relevant phrases (code and full text as stated in section 2 and 3): change in the listing (table)

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)

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Abbr.	Descriptions of used abbreviations
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended). GB mandatory classification and labelling.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.