

Page 1 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Boss Cool 4 AB

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

Cooling lubricant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

CE

elumatec AG
Pinacher Straße 61
75417 Mühlacker
Tel.: +49 (0) 7041 / 14 – 0
Fax: +49 (0) 7041 / 14 – 280
Homepage: www.elumatec.com

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

CE

Emergency poisoning centre D-79110 Freiburg Tel.: +49 (0) 761 19240 (24 hour)

Telephone number of the company in case of emergencies:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Eye Irrit.	2	H319-Causes serious eye irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Repr.	1B	H360FD-May damage fertility. May damage the unborn child.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB



Danger

H319-Causes serious eye irritation. H315-Causes skin irritation. H360FD-May damage fertility. May damage the unborn child.

P201-Obtain special instructions before use. P261-Avoid breathing vapours or spray. P280-Wear protective gloves / protective clothing / eye protection / face protection.
 P308+P313-IF exposed or concerned: Get medical advice / attention.

Restricted to professional users.
 Boric acid

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Carboxylic acids, amine salts	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	---
CAS	---
content %	10-25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Boric acid	SVHC-substance
Registration number (REACH)	---
Index	005-007-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	233-139-2
CAS	10043-35-3
content %	<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Repr. 1B, H360FD

(Benzyloxy)methanol	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	238-588-8
CAS	14548-60-8
content %	<2,5

Page 3 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

Classification according to Regulation (EC) 1272/2008 (CLP), M-factors

Acute Tox. 4, H302
Acute Tox. 4, H312
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H335

3-iodo-2-propynyl butylcarbamate**Registration number (REACH)**

Index

616-212-00-7

EINECS, ELINCS, NLP, REACH-IT List-No.

259-627-5

CAS

55406-53-6

content %

<0,025

Classification according to Regulation (EC) 1272/2008 (CLP), M-factors

Acute Tox. 3, H331
Acute Tox. 4, H302
Eye Dam. 1, H318
Skin Sens. 1, H317
STOT RE 1, H372 (larynx)
Aquatic Acute 1, H400 (M=10)
Aquatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

eyes, reddened

watering eyes

reddening of the skin

Dermatitis (skin inflammation)

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray / alcohol resistant foam / CO₂ / dry extinguisher.

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Oxides of sulphur

Toxic gases

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid aerosol formation.

Avoid contact with eyes or skin.

Pregnant women should avoid contact with this product.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Not to be stored in gangways or stair wells.
 Store product closed and only in original packing.
 Store at room temperature.
 Store in a dry place.

7.3 Specific end use(s)

No information available at present.
 The use of cooling lubricants may be subject to special conditions. Please observe national regulations, such as TRGS 611 in Germany.
 Observe the instructions for good working practice and the recommendations for risk assessment.
 Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Glycerol		
WEL-TWA: 10 mg/m ³ (mist)	WEL-STEL: ---	---	
Monitoring procedures:	---		
BMGV: ---	Other information: ---		

Chemical Name	Formaldehyde		
WEL-TWA: 2 ppm (2,5 mg/m ³) (WEL), 0,3 ppm (0,37 mg/m ³) (EU) (Limit value of 0,62 mg/m ³ or 0,5 ppm (8h) for the health care, funeral and embalming sectors until 11 July 2024. (EU))	WEL-STEL: 2 ppm (2,5 mg/m ³) (WEL), 0,6 ppm (0,74 mg/m ³) (EU)	---	
Monitoring procedures:	Draeger - Activation tube for use in conjunction with Formaldehyde 0.2/a tube (81 01 141) - Draeger - Formaldehyde 0,2/a (67 33 081) - Draeger - Formaldehyde 2/a (81 01 751) - Compur - KITA-171 SA (554 616) - Compur - KITA-171 SB (549 319) - Compur - KITA-171 SC (509 859) - DFG (D) (Aldehyde), DFG (E) (Aldehydes) - 1996, 2002 - NIOSH 2016 (FORMALDEHYDE) - 2016 - NIOSH 2539 (ALDEHYDES, SCREENING) - 1994 - NIOSH 2541 (FORMALDEHYDE by GC) - 1994 - NIOSH 3500 (FORMALDEHYDE by VIS) - 1994 - NIOSH 3800 (ORGANIC AND INORGANIC GASES BY EXTRACTIVE FTIR SPECTROMETRY) - 2016 - NIOSH 5700 (FORMALDEHYDE ON DUST (TEXTILE OR WOOD)) - 2016 - OSHA ID-205 (Formaldehyde in workplace atmospheres (3M model 3721 monitor)) - 1989 - EU project BC/CEN/ENTR/000/2002-16 card 57-5 (2004)		
BMGV: ---	Other information: (14) (EU)		

Boric acid						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	1,35	mg/l	
	Environment - marine		PNEC	1,35	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	9,1	mg/l	

Page 6 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

	Environment - sewage treatment plant		PNEC	1,75	mg/l	
	Environment - sediment, freshwater		PNEC	1,8	mg/kg dw	
	Environment - sediment, marine		PNEC	1,8	mg/kg dw	
	Environment - soil		PNEC	5,4	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	4,15	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	196	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,98	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	0,98	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	8,3	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	392	mg/kg bw/day	

2,2',2"-nitrioltriethanol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,32	mg/l	
	Environment - marine		PNEC	0,032	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	5,12	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	1,7	mg/kg	
	Environment - sediment, marine		PNEC	0,17	mg/kg	
	Environment - soil		PNEC	0,151	mg/kg dry weight	
Consumer	Human - dermal	Long term, systemic effects	DNEL	2,66	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	3	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,25	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,4	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6,3	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	1	mg/m3	

Glycerol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,885	mg/l	
	Environment - marine		PNEC	0,088	mg/l	

Page 7 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

	Environment - sewage treatment plant		PNEC	1000	mg/l	
	Environment - sediment, freshwater		PNEC	3,3	mg/kg dw	
	Environment - sediment, marine		PNEC	0,33	mg/kg dw	
	Environment - soil		PNEC	0,141	mg/kg dw	
	Environment - water, sporadic (intermittent) release		PNEC	8,85	mg/l	
Consumer	Human - inhalation	Long term, local effects	DNEL	33	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	229	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	56	mg/m3	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
 (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
 These are specified by e.g. EN 14042.
 EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Chemical resistant protective gloves (EN ISO 374).
 Recommended
 Protective gloves made of fluorocarbon rubber (EN ISO 374).
 Protective nitrile gloves (EN ISO 374).
 Minimum layer thickness in mm:
 > 0,38
 Permeation time (penetration time) in minutes:

Page 8 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

> 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

Normally not necessary.

In aerosol misting:

Filter A P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Amber
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	100
Flammability:	There is no information available on this parameter.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	There is no information available on this parameter.
Auto-ignition temperature:	n.a.
Decomposition temperature:	There is no information available on this parameter.
pH:	9,3 (50 g/l, 20°C, DIN 51369)
Kinematic viscosity:	There is no information available on this parameter.
Solubility:	Mixable
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	1,08 g/cm ³ (20°C, DIN 51757)
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

9.2 Other information

Explosives:	Product is not explosive.
Oxidising liquids:	No

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Page 9 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Strong heat

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

Possibly more information on health effects, see Section 2.1 (classification).

Boss Cool 4 AB						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>5000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>5000	mg/kg			calculated value
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:						Irritant
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Carboxylic acids, amine salts						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Serious eye damage/irritation:						Irritant, Analogous conclusion
Aspiration hazard:						No

Boric acid						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2600	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>2	g/m3	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:						Positive

Page 10 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

Aspiration hazard: Symptoms:						Negative ataxia, breathing difficulties, diarrhoea, headaches, cramps, gastrointestinal disturbances, fatigue, dizziness, nausea
---------------------------------	--	--	--	--	--	--

3-iodo-2-propynyl butylcarbamate						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1056	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Female
Acute toxicity, by inhalation:	LD50	0,763	mg/l/4h	Rat		Dust
Acute toxicity, by inhalation:	LC50	>6,89	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours

Glycerol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>10000	mg/kg	Rabbit		
Skin corrosion/irritation:				Rabbit	IUCLID Chem. Data Sheet (ESIS)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig		No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:	NOAEL	2000	mg/kg/d			Negative
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	3,91	mg/l	Rat		(14d)
Aspiration hazard: Symptoms:						Negative abdominal pain, drowsiness, diarrhoea, vomiting, headaches, mucous membrane irritation, nausea

11.2. Information on other hazards

Boss Cool 4 AB						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply to mixtures.

Page 11 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

Other information:						No other relevant information available on adverse effects on health.
--------------------	--	--	--	--	--	---

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Boss Cool 4 AB							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.

Carboxylic acids, amine salts							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Boric acid							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>800	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	NOEC/NOEL	34d	1,8	mg/l	Brachydanio rerio		
12.1. Toxicity to fish:	LC50	96h	5600	mg/l	Gambusia affinis		
12.1. Toxicity to fish:	LC50	96h	79,7	mg/l	Pimephales promelas		EPA OPPTS 850.1075
12.1. Toxicity to daphnia:	EC50	48h	133-875	mg/l	Daphnia magna		
12.1. Toxicity to algae:	IC50	72h	192	mg/l	Scenedesmus subspicatus		
12.1. Toxicity to algae:	EC50	72h	229	mg/l	Pseudokirchnerie lla subcapitata		
12.2. Persistence and degradability:							Inorganic products cannot be eliminated from water through biological purification methods. reaction to boron

Page 12 of 16
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 29.03.2023 / 0006
 Replacing version dated / version: 26.10.2022 / 0005
 Valid from: 29.03.2023
 PDF print date: 30.03.2023
 Boss Cool 4 AB

12.3. Bioaccumulative potential:	Log Pow		-1,25 - -0,757				Bioaccumulation is unlikely (LogPow < 1),. Not relevant for inorganic substances.
Water solubility:			47	g/l			Soluble 20°C
Water solubility:			379,9	g/l			Soluble 100°C

3-iodo-2-propynyl butylcarbamate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	EC50	96h	0,067	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	NOEC/NOEL	96h	0,049	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to algae:	EC50	72h	0,022	mg/l	Scenedesmus subspicatus		
12.2. Persistence and degradability:		28d	25	%	activated sludge	OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Not readily biodegradable

Glycerol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	> 5000	mg/l	Carassius auratus		
12.1. Toxicity to daphnia:	EC50	48h	>10000	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EC5	72h	3200	mg/l			Entosiphon sulcatum
12.1. Toxicity to algae:	EC50		2900	mg/l	Chlorella vulgaris		
12.2. Persistence and degradability:		14d	63	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	
12.2. Persistence and degradability:	BOD/COD		>60	%			
12.2. Persistence and degradability:	BOD5/COD		> 50	%			
12.2. Persistence and degradability:	DOC		>70	%			Readily biodegradable
12.2. Persistence and degradability:	BOD5		0,87	g/g			
12.2. Persistence and degradability:	COD		1,16	g/g			
12.3. Bioaccumulative potential:	Log Pow		-1,75			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	Bioaccumulation is unlikely (LogPow < 1).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC5	16h	> 10000	mg/l	Pseudomonas putida		

SECTION 13: Disposal considerations

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

12 01 09 machining emulsions and solutions free of halogens

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Untampered packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

Transport by road/by rail (ADR/RID)

14.1. UN number or ID number:	Not applicable
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:	Not applicable
Tunnel restriction code:	Not applicable
Classification code:	Not applicable
LQ:	Not applicable
Transport category:	Not applicable

Transport by sea (IMDG-code)

14.1. UN number or ID number:	Not applicable
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:	Not applicable
Marine Pollutant:	Not applicable
EmS:	Not applicable

Transport by air (IATA)

14.1. UN number or ID number:	Not applicable
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:	Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Page 14 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

Observe restrictions:
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Regulation (EC) No 1907/2006, Annex XVII
Boric acid
Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!
Comply with trade association/occupational health regulations.

Treated goods as per Regulation (EU) No. 528/2012 must display specific information on the label.
Please note Article 58 paragraph (3) subparagraph 2 of Regulation (EU) No. 528/2012.
Approval of the biocidal active substance may mean that special conditions are required for marketing the treated goods.
These are indicated in the approval of the active substance.

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1, 7, 15
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Repr. 1B, H360FD	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H360FD May damage fertility. May damage the unborn child.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
Skin Irrit. — Skin irritation
Repr. — Reproductive toxicity
Acute Tox. — Acute toxicity - oral
Acute Tox. — Acute toxicity - dermal
Eye Dam. — Serious eye damage
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
Acute Tox. — Acute toxicity - inhalation
Skin Sens. — Skin sensitization
STOT RE — Specific target organ toxicity - repeated exposure
Aquatic Acute — Hazardous to the aquatic environment - acute

Page 15 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association

Page 16 of 16
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 29.03.2023 / 0006
Replacing version dated / version: 26.10.2022 / 0005
Valid from: 29.03.2023
PDF print date: 30.03.2023
Boss Cool 4 AB

IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.