

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer pH 9 (250-209-00x)

Revision: 27.10.2025

Product code: AC18.07143

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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Repr. 1B; H360FD

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard components for labelling**

boric acid

Signal word: Danger**Pictograms:****Hazard statements**

H360FD

May damage fertility. May damage the unborn child.

EUH208

Contains formaldehyde. May produce an allergic reaction.

Precautionary statements

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P280

Wear protective gloves/protective clothing and eye protection/face protection.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P405

Store locked up.

P501

Dispose of contents/container to an appropriate recycling or disposal facility.

Special labelling

Restricted to professional users.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

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Relevant ingredients

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
10043-35-3	boric acid	< 1 %
	233-139-2	
	005-007-00-2	
	01-2119486683-25	
	Repr. 1B; H360FD	
50-00-0	formaldehyde	< 0.1 %
	200-001-8	
	605-001-00-5	
	01-2119488953-20	
	Carc. 1B, Muta. 2, Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1A, STOT SE 3; H350 H341 H330 H311 H301 H314 H318 H317 H335 EUH071	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
10043-35-3	233-139-2	boric acid	< 1 %
		inhalation: LC50 = > 2,12 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3450 mg/kg	
50-00-0	200-001-8	formaldehyde	< 0.1 %
		inhalation: LC50 = < 463 mg/l (vapours); inhalation: ATE 100 ppm (gases); dermal: ATE = 300 mg/kg; oral: ATE 500 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 STOT SE 3; H335: >= 5 - 100	

Further Information

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: boric acid

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air.

Call a doctor if you feel unwell.

After contact with skin

Wash immediately with: Water

Take off contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Allergic reactions

4.3. Indication of any immediate medical attention and special treatment needed

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No data available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

No data available

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe vapour/aerosol.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe vapour/aerosol.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up**For containment**

Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

No data available

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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Advice on safe handling

Do not breathe vapour/aerosol.
Use extractor hood (laboratory).

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Wash contaminated clothing prior to re-use.
Do not breathe vapour/aerosol.
Avoid contact with skin, eyes and clothes.

Further information on handling

Wash contaminated clothing before reuse.
Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed.
Store in a place accessible by authorized persons only.

Hints on joint storage

National regulatory information

Further information on storage conditions

Store in a dry place.

7.3. Specific end use(s)

Laboratory chemicals
Only for laboratory and analysis purposes.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
10043-35-3	Borate compounds inorganic: boric acid	-	2		TWA (8 h)	
50-00-0	Formaldehyde	0.3	0.37		TWA (8 h)	
		0.6	0.738		STEL (15 min)	

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
10043-35-3	boric acid		
Worker DNEL, long-term	inhalation	systemic	8,3 mg/m ³
Worker DNEL, long-term	dermal	systemic	392 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	4,15 mg/m ³
Consumer DNEL, long-term	dermal	systemic	196 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,98 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	0,98 mg/kg bw/day
50-00-0	formaldehyde		
Worker DNEL, long-term	inhalation	systemic	9 mg/m ³
Worker DNEL, long-term	inhalation	local	0,375 mg/m ³
Worker DNEL, long-term	dermal	systemic	240 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	3,2 mg/m ³
Consumer DNEL, long-term	inhalation	local	0,1 mg/m ³
Consumer DNEL, long-term	dermal	systemic	102 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4,1 mg/kg bw/day
Worker DNEL, acute	inhalation	local	0,75 mg/m ³

PNEC values

CAS No	Substance	
Environmental compartment	Value	
10043-35-3	boric acid	
Freshwater	2,9 mg/l	
Freshwater (intermittent releases)	13,7 mg/l	
Marine water	2,9 mg/l	
Micro-organisms in sewage treatment plants (STP)	10 mg/l	
Soil	5,7 mg/kg	
50-00-0	formaldehyde	
Freshwater	0,44 mg/l	
Freshwater (intermittent releases)	4,44 mg/l	
Marine water	0,44 mg/l	
Freshwater sediment	2,3 mg/kg	
Marine sediment	2,3 mg/kg	
Micro-organisms in sewage treatment plants (STP)	0,19 mg/l	
Soil	0,2 mg/kg	

Additional advice on limit values

Observe in addition any national regulations!

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

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Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection.
Face protection umbrella
goggles

Hand protection

Tested protective gloves must be worn. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Wear suitable protective clothing.
Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Thermal hazards

No data available

Environmental exposure controls

Do not empty into drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	colourless	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		9
Viscosity / kinematic:		No data available
Water solubility:		No data available
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		No data available
Relative density:		No data available
Bulk density:		No data available

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Relative vapour density:

No data available

Particle characteristics:

No data available

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

No data available

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

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Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
10043-35-3	boric acid				
	oral	LD50 3450 mg/kg	Rat	Toxicology and Applied Pharmacology 23:	other: No data
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1982)	other: FIFRA
	inhalation (4 h) dust/mist	LC50 > 2,12 mg/l	Rat	Study report (1997)	OECD Guideline 403
50-00-0	formaldehyde				
	oral	ATE 500 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalation (4 h) vapour	LC50 < 463 mg/l	Rat	Study report (2015)	OECD Guideline 403
	inhalation gas	ATE 100 ppm			

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Contains formaldehyde. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility. May damage the unborn child. (boric acid)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

There are no data available on the mixture itself.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

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Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information**12.1. Toxicity**

Based on available data, the classification criteria are not met.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
10043-35-3	boric acid					
	Acute fish toxicity	LC50 79,7 mg/l	96 h	Pimephales promelas	Study report (2010)	other: ASTM E729-95 Standard Guide for C
	Acute algae toxicity	ErC50 66 mg/l	72 h	Phaeodactylum tricornutum	Study report (2011)	ISO 10253
	Acute crustacea toxicity	EC50 109 mg/l	48 h	Ceriodaphnia dubia	Study report (2010)	other: ASTM E729-95 Standard Guide for C
	Fish toxicity	NOEC 11,2 mg/l	32 d	Pimephales promelas	Study report (2010)	other: ASTM E1241-05 Standard Guide for
	Algae toxicity	NOEC 17,5 mg/l	3 d	Pseudokirchneriella subcapitata	Study report (2000)	OECD Guideline 201
	Crustacea toxicity	NOEC 25,9 mg/l	42 d	other aquatic crustacea: Hyalella azteca	Study report (2010)	other: US EPA 2000 Methods for assessing
	Acute bacteria toxicity	EC50 mg/l () > 10000	3 h	activated sludge of a predominantly domestic sewage	Study report (2001)	OECD Guideline 209
50-00-0	formaldehyde					
	Acute fish toxicity	LC50 27,57 mg/l	96 h	Ictalurus punctatus	Prog.Fish-Cult. 20(1):8-15 (1958)	acute toxicity test; "static bioassay"
	Acute algae toxicity	ErC50 3,48 mg/l	72 h	Desmodesmus subspicatus	Ecotoxicol Environ Safety 54: 346-354 (2)	OECD Guideline 201
	Acute crustacea toxicity	EC50 5,8 mg/l	48 h	Daphnia pulex	Water, Air and Soil Pollution 97, 315-32	OECD Guideline 202
	Fish toxicity	NOEC >= 48 mg/l	28 d	Oryzias latipes	NTIS (ed.) Compendium of the FY1988 and	OECD Guideline 215
	Crustacea toxicity	NOEC >= 6,4 mg/l	21 d	Daphnia magna	Study report (2008)	OECD Guideline 211
	Acute bacteria toxicity	EC50 19 mg/l ()	3 h	Activated sludge	Chemosphere 14, 1239-1251 (1985)	OECD Guideline 209

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
10043-35-3	boric acid	-1,09
50-00-0	formaldehyde	0,35

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BCF

CAS No	Chemical name	BCF	Species	Source
10043-35-3	boric acid	0,558	Oncorhynchus nerka	Water Research Vol.
50-00-0	formaldehyde	< 1	Paralichthys olivaceus and Sebastes schlegeli	Aquaculture 194, 253

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

There are no data available on the mixture itself.

Further information

Do not empty into drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

Send to a physico-chemical treatment facility under observation of official regulations. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Contaminated packaging

Dispose of contents/container to an appropriate recycling or disposal facility.

This material and its container must be disposed of as hazardous waste.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

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14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

boric acid

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 30, Entry 75

Information according to Directive

Not subject to 2012/18/EU (SEVESO III)

2012/18/EU (SEVESO III):

Additional information

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National regulatory information

Water hazard class (D):

1 - slightly hazardous to water

Additional information

No data available

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 3,4,5,7,8,9,11.

Abbreviations and acronyms

Acute Tox. 2: Acute toxicity, hazard category 2

Acute Tox. 3: Acute toxicity, hazard category 3

Skin Corr. 1B: Skin corrosion, sub-category 1B

Eye Dam. 1: Serious eye damage, hazard category 1

Skin Sens. 1A: Skin sensitisation, hazard category 1A

Muta. 2: Germ cell mutagenicity, hazard category 2

Carc. 1B: Carcinogenicity, hazard category 1B

Repr. 1B: Reproductive toxicity, hazard category 1B

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Repr. 1B; H360FD	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.

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H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
EUH071	Corrosive to the respiratory tract.
EUH208	Contains formaldehyde. May produce an allergic reaction.

Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)