

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 1 of 11

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

1.1. Product identifier

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

UFI: WEND-W1FY-N00C-HMM7

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

Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name: AnalytiChem Services, Unipessoal, Lda
Street: Rua de Júlio Dinis 676 7º
Place: P-4050-320 Porto
Telephone: +351 226002917
E-mail: info@analytichem.com
Contact person: SDS service department
E-mail: SDS@analytichem.com
Internet: www.analytichem.com
Responsible Department: SDS service department

Supplier or manufacturer details

Company name: AnalytiChem GmbH
Street: Stempelstraße 6
Place: D-47167 Duisburg
Telephone: 0203/5194-0
E-mail: info@analytichem.de
Contact person: SDS service department
E-mail: SDS@analytichem.com
Internet: www.analytichem.de
Responsible Department: AnalytiChem
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333
+353 1 901 4670 (CHEMTREC)

1.4. Emergency telephone number:

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 2 of 11

Further Information

This product is a mixture. REACH Registration Number see section 3.

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**

"disodium tetraborate decahydrate; borax decahydrate"

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

H360FD May damage fertility. May damage the unborn child.

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/eye protection/face protection/hearing protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to Dispose of contents/container in accordance with local/regional/national/international regulations..

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

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"			< 1 %
	215-540-4	005-011-00-4		
	Repr. 1B; H360FD			

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 3 of 11

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1303-96-4	215-540-4	"disodium tetraborate decahydrate; borax decahydrate"	< 1 %
		inhalation: LC50 = > 2,04 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2500 mg/kg	

Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: disodium tetraborate decahydrate

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

Remove contaminated, saturated clothing immediately.

Call a physician immediately.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

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

Consult an ophthalmologist.

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

No data available

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

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 restriction

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 4 of 11

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 dust/fume/gas/mist/vapours/spray.

For emergency responders

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

6.2. Environmental precautions

Do not allow to enter into surface water or 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

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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

Advice on safe handling

Handle and open container with care.

Keep container tightly closed.

Do not breathe vapour/aerosol.

Avoid contact with skin, eyes and clothes.

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 5 of 11

Requirements for storage rooms and vessels

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

Hints on joint storage

Take national regulations into account.

Further information on storage conditions

Store in a dry place.

7.3. Specific end use(s)

Laboratory chemicals

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
1303-96-4	Borate compounds inorganic: Borate (tetra) sodium decahydrate	-	2		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"			
	Worker DNEL, long-term	inhalation	systemic	6,7 mg/m ³
	Worker DNEL, long-term	dermal	systemic	316,4 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	3,4 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	159,5 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0,79 mg/kg bw/day
	Consumer DNEL, acute	oral	systemic	0,79 mg/kg bw/day

PNEC values

CAS No	Substance	Environmental compartment	Value
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"		
	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

8.2. Exposure controls

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 6 of 11

Eye/face protection

goggles

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Thermal hazards

No data available

Environmental exposure controls

Discharge into the environment must be avoided.

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 (at 25 °C):	9,18
Viscosity / kinematic:	No data available
Water solubility:	No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 7 of 11

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:	1,0003 g/cm ³
Relative density:	No data available
Bulk density:	No data available
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:	0
Solid content:	0
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 data available

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 8 of 11

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.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"				
	oral	LD50 mg/kg	> 2500 Rat	Study report (1996)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000 Rabbit	Study report (1985)	other: This study was carried out to com
	inhalation (4 h) dust/mist	LC50 mg/l	> 2,04 Rat	Study report (1994)	OECD Guideline 403

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.

Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility. May damage the unborn child. ("disodium tetraborate decahydrate; borax decahydrate")

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 9 of 11

11.2. Information on other hazards**Endocrine disrupting properties**

There are no data available on the mixture itself.

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.

CAS No	Chemical name	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"						
	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 102 mg/l	48 h		Ceriodaphnia dubia	Study report (2010)	other: ASTM E729-95 Standard Guide for C
	Fish toxicity	NOEC 6,4 mg/l	34 d		Danio rerio	Study report (2000)	OECD Guideline 210
	Algae toxicity	NOEC 17,5 mg/l	3 d		Pseudokirchneriella subcapitata	Study report (2000)	OECD Guideline 201
	Crustacea toxicity	NOEC 10,8 mg/l	21 d		Daphnia magna	Study report (2000)	OECD Guideline 211
	Acute bacteria toxicity	EC50 > 10000 mg/l ()	3 h		activated sludge of a predominantly domestic sewage	Study report (2001)	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
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"	-1,53

BCF

CAS No	Chemical name	BCF	Species	Source
1303-96-4	"disodium tetraborate decahydrate; borax decahydrate"	0,558	Oncorhynchus nerka	Water Research Vol.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 10 of 11

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

Do not empty into drains.

Further information

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations. Do not empty into drains.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

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/ATA-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.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Buffer solution pH 9.18 (25°C) traceable to NIST Ph. Eur.

Revision: 12.01.2026

Product code: AC18.05211

Page 11 of 11

EU regulatory information

Authorisations (REACH, annex XIV):

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

"disodium tetraborate decahydrate; borax decahydrate"

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 75

Information according to Directive 2012/18/EU (SEVESO III):

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

National regulatory information

Employment restrictions:

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. Observe employment restrictions for women of child-bearing age.

-- non-hazardous to water

Water hazard class (D):

Additional information

No data available

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9,12.

Abbreviations and acronyms

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

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)

H360FD May damage fertility. May damage the unborn child.

Further Information

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.

Provide appropriate information, instructions and training to users

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