

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Indicator buffer tablets for the determination of water hardness with EDTA

Revision: 15.01.2025 Product code: 20506 Page 1 of 12

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

1.1. Product identifier

Indicator buffer tablets for the determination of water hardness with EDTA

UFI: 0JST-01HF-2003-AEW5

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

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

<u>number:</u> Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

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

Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

ammonium chloride methenamine

Signal word: Warning

Pictograms:





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Hazard statements

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves and eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P501 Dispose of contents/container to Dispose of contents/container in accordance with

local/regional/national/international regulations..

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity	
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No	1272/2008)			
12125-02-9	ammonium chloride			90 - < 95 %	
	235-186-4	017-014-00-8	01-2119487950-27		
	Acute Tox. 4, Eye Irrit. 2; H302 H319				
14025-21-9	Ethylenediaminetetraacetic acid, disodium salt, zinc(II) salt				
	237-865-0				
	Eye Irrit. 2; H319				
100-97-0	methenamine			1 - < 5 %	
	202-905-8	612-101-00-2	01-2119474895-20		
	Flam. Sol. 2, Skin Sens. 1; H228 H	1317			

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

Specific Conc. Limits, M-factors and ATE

	,			
CAS No	EC No	EC No Chemical name		
	Specific Conc.	Limits, M-factors and ATE		
12125-02-9	235-186-4	ammonium chloride	90 - < 95 %	
	dermal: LD50 =	= > 2000 mg/kg; oral: LD50 = 1410 mg/kg		
100-97-0	202-905-8	methenamine	1 - < 5 %	
	dermal: LD50 =	= > 2000 mg/kg; oral: LD50 = > 20000 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures



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General information

Take off immediately all contaminated clothing.

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

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

Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

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

Protect uninjured eye.

After ingestion

Never give anything by mouth to an unconscious person or a person with cramps.

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Allergic reactions

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 solids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

5.3. Advice for firefighters

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

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

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

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

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.



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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).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

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

Read label before use. Handle and open container with care.

Avoid dust formation. Do not breathe dust.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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



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Hints on joint storage

national regulations

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/m³	fib/cm³	Category	Origin
12125-02-9	Ammonium chloride, fume	-	10		TWA (8 h)	
		-	20		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance			
DNEL type	•	Exposure route	Effect	Value
12125-02-9	ammonium chloride		·	
Worker DNE	L, long-term	inhalation	systemic	33,5 mg/m³
Worker DNE	L, long-term	dermal	systemic	190 mg/kg bw/day
Consumer D	NEL, long-term	inhalation	systemic	9,9 mg/m³
Consumer D	NEL, long-term	dermal	systemic	114 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	11,4 mg/kg bw/day
100-97-0	methenamine			
Worker DNE	L, long-term	inhalation	systemic	5,6 mg/m³
Worker DNEL, long-term		dermal	systemic	6,4 mg/kg bw/day
Consumer D	NEL, long-term	inhalation	systemic	1,2 mg/m³
Consumer D	NEL, long-term	dermal	systemic	3,2 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,8 mg/kg bw/day



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PNEC values

CAS No	Substance	
Environmen	tal compartment	Value
12125-02-9	ammonium chloride	
Freshwater		1,2 mg/l
Freshwater	(intermittent releases)	1,2 mg/l
Marine wate	r	11,2 mg/l
Micro-organ	isms in sewage treatment plants (STP)	16,2 mg/l
Soil		0,163 mg/kg
100-97-0	methenamine	
Freshwater		3 mg/l
Freshwater	(intermittent releases)	30 mg/l
Marine wate	r	0,3 mg/l
Freshwater	sediment	10,2 mg/kg
Marine sediment		1,02 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,28 mg/kg

8.2. Exposure controls

Appropriate engineering controls

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

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Avoid dust formation. Do not breathe dust.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye protection/face protection.

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

Trade name/designation KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L Suitable 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).



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No data available

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

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

The entrepeneur 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.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

solid Physical state: Colour: grey odourless Odour:

No data available Odour threshold:

No data available Melting point/freezing point: No data available Boiling point or initial boiling point and

boiling range:

Flammability: No data available Lower explosion limits: Upper explosion limits: No data available No data available Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: pH-Value: 7 (50 g/l) No data available Viscosity / kinematic: No data available Water solubility:

Solubility in other solvents

No data available

No data available Dissolution rate: No data available Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapour pressure: Vapour pressure: No data available No data available Density: No data available Relative density: No data available Bulk density: No data available Relative vapour density: No data available Particle characteristics:

9.2. Other information

Information with regard to physical hazard classes

Explosive properties No data available

No data available Sustained combustibility:

Self-ignition temperature

No data available Solid:



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Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

Solvent content:

O
Solid content:

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

Flow time:

No data available

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

Humidity

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1504 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
12125-02-9	ammonium chloride					
	oral	LD50 mg/kg	1410	Rat	Other company data (1983)	other: not mentioned
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2010)	EU Method B.3
100-97-0	methenamine					
	oral	LD50 mg/kg	> 20000	Rat	Food Cosment. Toxicol. 3, 362-363 (1966)	The study was conducted in 1966 before O
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1997)	OECD Guideline 402

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

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

Sensitising effects

May cause an allergic skin reaction. (methenamine)

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

Reproductive toxicity: 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

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

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

No data available

Further information

No data available

SECTION 12: Ecological information

12.1. Toxicity



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

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
12125-02-9	ammonium chloride							
	Acute fish toxicity	LC50	209 mg/l	96 h	Cyprinus carpio	Indian J. Environ. Health, 17, 140-146,	other: E03-05:APHA, AWWA & WPCF	
	Acute crustacea toxicity	EC50	101 mg/l	48 h	Daphnia magna	Env. Tox. Chem. 5, 443-447 (1986) (1986)	other: ASTM E729-80	
	Fish toxicity	NOEC	11,8 mg/l	28 d	Pimephales promelas	Env.Tox. Chem. 5, 437-442 (1986) (1986)	other: - American Society for Testing an	
	Algae toxicity	NOEC mg/l	26,8	10 d	Navicula sp.	Mar. Biol. 43(4), 307-315, (1977) (1977)	no data	
	Crustacea toxicity	NOEC mg/l	14,6	21 d	Daphnia magna	Env. Tox. Chem. 5, 443-447 (1986) (1986)	other: not mentioned	
	Acute bacteria toxicity	EC50 mg/l ()	1618	0,5 h	activated sludge, domestic	Study report (1988)	OECD Guideline 209	
100-97-0	methenamine							
	Acute fish toxicity	LC50 mg/l	41000	96 h	Lepomis macrochirus	Study report (1976)	other: U.S. EPA, 1975: Methods for Acute	
	Acute crustacea toxicity	EC50 mg/l	36000	48 h	Daphnia magna	Study report (1980)	other: ASTM Committee on Water Quality,	
	Algae toxicity	NOEC mg/l	1500	14 d	Pseudokirchneriella subcapitata	Study report (1980)	other: National Environmental Research C	
	Acute bacteria toxicity	EC50 mg/l ()	> 5000	0,5 h	Vibrio fisheri	Arch. Environ. Contam. Toxicol. 28, 229-	DIN 38412-8	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
100-97-0	methenamine	-2,18

12.4. Mobility in soil

No data available

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.



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12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.

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 allow to enter into surface water or 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.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (A	ADR/RID)	
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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.

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

EU regulatory information



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Restrictions on use (REACH, annex XVII):

Entry 40, Entry 75

Information according to Directive

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

2012/18/EU (SEVESO III):

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,7,8,9,11,12,13,15.

Abbreviations and acronyms

Flam. Sol. 2: Flammable solids, hazard category 2 Acute Tox. 4: Acute toxicity, hazard category 4 Eye Irrit. 2: Eye irritation, hazard category 2 Skin Sens. 1: Skin sensitisation, hazard category 1

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

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method

Relevant H and EUH statements (number and full text)

H228 Flammable solid.H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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.)