

according to Regulation (EC) No 1907/2006

Reagent 130+R2203

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

1.1. Product identifier

Reagent 130+R2203

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

Use of the substance/mixture

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Laboratory chemicals

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 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,

number: 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

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

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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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC)	No 1272/2008)	•	
7732-18-5	water			55 - < 60 %
	231-791-2			
631-61-8	ammonium acetate			35 - < 40 %
	211-162-9			
7664-93-9	sulphuric acid			1 - < 5 %
	231-639-5	016-020-00-8	01-2119458838-20	
	Met. Corr. 1, Skin Corr. 1A, Eye	Dam. 1; H290 H314 H318		
7664-38-2	phosphoric acid			1 - < 5 %
	231-633-2	015-011-00-6	01-2119485924-24	
	Met. Corr. 1, Acute Tox. 4, Skin	Corr. 1B, Eye Dam. 1; H290	H302 H314 H318	
6381-92-6	EDTA Na 2			< 1 %
	205-358-3		01-2119486775-20	
	Acute Tox. 4, STOT RE 2; H332	2 H373		

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name			
	Specific Conc.	Limits, M-factors and ATE			
631-61-8	211-162-9	ammonium acetate	35 - < 40 %		
	dermal: LD50 =	= > 26556,42 mg/kg; oral: LD50 = >= 2333,28 mg/kg			
7664-93-9	231-639-5	231-639-5 sulphuric acid			
	oral: LD50 = 2 ⁻¹ Eye Irrit. 2; H31	140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 9: >= 5 - < 15			
7664-38-2	231-633-2	31-633-2 phosphoric acid			
	oral: ATE = 50 Irrit. 2; H319: >	0 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye = 10 - < 25			
6381-92-6	205-358-3 EDTA Na 2				
	inhalation: ATE 2800 mg/kg	E = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 =			

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

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

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



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In case of skin irritation, consult a physician.

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.

In case of eye irritation 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.

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

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.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

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.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.



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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.

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

Requirements for storage rooms and vessels

Keep container tightly closed.

Keep in a cool place.

Protect against: Light

Hints on joint storage

No data available

Further information on storage conditions

Keep container dry.

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
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	
		-	2		STEL (15 min)	
7664-93-9	Sulphuric acid	-	0.05		TWA (8 h)	



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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
631-61-8	ammonium acetate			
Worker DNEL,	long-term	inhalation	systemic	911,56 mg/m³
Worker DNEL,	acute	inhalation	systemic	5469,35 mg/m ³
Worker DNEL,	long-term	dermal	systemic	10,34 mg/kg bw/day
Worker DNEL,	acute	dermal	systemic	62,04 mg/kg bw/day
Consumer DN	EL, long-term	inhalation	systemic	449,56 mg/m³
Consumer DN	EL, acute	inhalation	systemic	2674,16 mg/m³
Consumer DN	EL, long-term	dermal	systemic	5,17 mg/kg bw/day
Consumer DN	EL, acute	dermal	systemic	31,02 mg/kg bw/day
Consumer DN	EL, long-term	oral	systemic	5,17 mg/kg bw/day
Consumer DN	EL, acute	oral	systemic	31,02 mg/kg bw/day
7664-93-9	sulphuric acid			
Worker DNEL,	long-term	inhalation	local	0,05 mg/m³
7664-38-2	phosphoric acid			
Worker DNEL,	acute	inhalation	local	2 mg/m³
Worker DNEL,	long-term	inhalation	local	2,92 mg/m³
Consumer DN	EL, long-term	inhalation	systemic	4,57 mg/m³
Consumer DN	EL, long-term	inhalation	local	0,36 mg/m³
Consumer DN	EL, long-term	oral	systemic	0,1 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	10,7 mg/m³
6381-92-6	EDTA Na 2	·		
Worker DNEL,	long-term	inhalation	local	1,5 mg/m³
Worker DNEL, acute		inhalation	local	3 mg/m³
Consumer DN	EL, long-term	inhalation	local	0,6 mg/m³
Consumer DN	EL, acute	inhalation	local	1,2 mg/m³
Consumer DN	EL, long-term	oral	systemic	25 mg/kg bw/day



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PNEC values

CAS No	Substance	
Environmenta	I compartment	Value
631-61-8	ammonium acetate	
Freshwater		3,08 mg/l
Marine water		0,308 mg/l
Freshwater se	ediment	2,51 mg/kg
Marine sedim	ent	0,251 mg/kg
Micro-organis	ms in sewage treatment plants (STP)	677 mg/l
Soil		0,72 mg/kg
7664-93-9	sulphuric acid	
Micro-organis	ms in sewage treatment plants (STP)	8,8 mg/l
6381-92-6	EDTA Na 2	
Freshwater		2,2 mg/l
Freshwater (intermittent releases)		1,2 mg/l
Marine water 0,22		0,22 mg/l
Micro-organisms in sewage treatment plants (STP) 43 mg/l		

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

Eye/face protection

goggles

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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.

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
Recommended 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
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



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(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

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:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

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 No data available Decomposition temperature: pH-Value: No data available No data available Viscosity / kinematic: Water solubility: No data available

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Vapour pressure:

No data available

Density:

1,1 g/cm³

Bulk density:

No data available

Relative vapour density:

No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available
Sustaining combustion:

Sustaining combustion: No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

No data available

No data available

Solvent content:

Solid content:

Sublimation point:

No data available



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Softening point:

Pour point:

No data available

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

Keep in a cool place. Protect against: Light

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Light

Heat / Radiant heat.

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

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

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CAS No	Chemical name	Chemical name						
	Exposure route	Dose		Species	Source	Method		
631-61-8	ammonium acetate							
	oral	LD50 2333,28 n	>= ng/kg		Read-across (2010)	Read-across approach from published expe		
	dermal	LD50 26556,42	> mg/kg		Read-across (2010)	Read-across approach from published expe		
7664-93-9	sulphuric acid							
	oral	LD50 mg/kg	2140	Rat	Am Ind Hyg Assoc J. 1969 Sep-Oct; 30(5):	The study was performed as part of a ser		
7664-38-2	phosphoric acid				•			
	oral	ATE mg/kg	500					
6381-92-6	EDTA Na 2							
	oral	LD50 mg/kg	2800	Rat	Study report (1973)	BASF-TEST: In principle, the methods des		
	inhalation vapour	ATE	11 mg/l					
	inhalation dust/mist	ATE	1,5 mg/l					

Irritation and corrosivity

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

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.

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

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



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There are no data available on the mixture itself.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
631-61-8	ammonium acetate						
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Skeletonema costatum	Study report (2005)	ISO 10253
	Acute crustacea toxicity	EC50 mg/l	> 360,89	48 h		Read-across (2010)	Read-across approach from Letter of Acce
	Fish toxicity	NOEC	154 mg/l	60 d	Cyprinus carpio	Publication (1999)	OECD Guideline 204
7664-93-9	sulphuric acid						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2009)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (2009)	OECD Guideline 202
	Fish toxicity	NOEC mg/l	0,025	65 d	Jordanella floridae	Water Research Vol. 11, 612 - 626, 1977	Groups of sexually mature flagfish
7664-38-2	phosphoric acid						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2010)	EU Method C.3
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (2010)	OECD Guideline 202
	Acute bacteria toxicity	(EC50 mg/l)	> 1000	3 h	activated sludge of a predominantly domestic sewag	Study report (2010)	OECD Guideline 209
6381-92-6	EDTA Na 2						
	Acute fish toxicity	LC50	41 mg/l	96 h	Lepomis macrochirus	Bull. Environm. Contam. Toxicol. 24: 543	The static water acute toxicity tests fo
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella subcapitata	Study report (2001)	OECD Guideline 201
	Acute crustacea toxicity	EC50	140 mg/l	48 h	Daphnia magna	Study report (1989)	other: DIN 38412, part 11
	Fish toxicity	NOEC mg/l	>= 25,7	35 d	Danio rerio	Study report (2001)	OECD Guideline 210
	Crustacea toxicity	NOEC	25 mg/l	21 d	Daphnia magna	Study report (1998)	other: EEC Guideline XI/681/86, Draft 4

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
631-61-8	ammonium acetate	-2,79
6381-92-6	EDTA Na 2	-4,3



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BCF

CAS No	Chemical name	BCF	Species	Source
631-61-8	ammonium acetate	3,162		Calculation (2010)
6381-92-6	EDTA Na 2	ca. 1,8	Lepomis macrochirus	Proc. 3rd. Ann. Symp

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

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.

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 transpor	t (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



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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

National regulatory information

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): 12.

Relevant H and EUH statements (number and full text)

	on otatomonto (nambor ana ran toxt)
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

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.

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