

Reagenz #1 - Ammoniummolybdatlösung zur photometrischen Kieselsäure-Bestimmung									
Revision date: 28.11.2024	Product code: 3387	2 Page 1 of 12							
SECTION 1: Identification of the substance/mixture and of the company/undertaking									
<u>1.1. Product identifier</u>	blybdatlösung zur photometrischen Kiesels	äura Paatimmung							
0		aure-Destiminiung							
UFI:	G2T0-132E-V00Q-S9MG								
	e substance or mixture and uses advise	d against							
	stances as such or in preparations at indus main (administration, education, entertain								
Uses advised against									
Do not use for private purpo	ses (household).								
1.3. Details of the supplier of the	safety data sheet								
Company name:	AnalytiChem GmbH								
	ACD								
Street:	Stempelstraße 6								
Place:	D-47167 Duisburg	T (
Telephone: E-mail:	0203/5194-0	Telefax: 0203/5194-290							
Contact person:	info@analytichem.de 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

Met. Corr. 1; H290 Skin Irrit. 2; H315 Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling sodium hydrogensulphate sulphuric acid

Signal word:

Pictograms:





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Hazard statements

H290	May be corrosive to metals.
H315	Causes skin irritation.
H318	Causes serious eve damage.

Precautionary statements

P280	Wear protective gloves and eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P390	Absorb spillage to prevent material damage.

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	Chemical name					
	EC No	Index No					
	Classification (Regulation	Classification (Regulation (EC) No 1272/2008)					
10034-88-5	sodium hydrogensulphat		20 - < 25 %				
	231-665-7	016-046-00-X					
	Eye Dam. 1; H318						
7664-93-9	sulphuric acid			10 - < 15 %			
	231-639-5	016-020-00-8	01-2119458838-20				
	Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318						

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.	cific Conc. Limits, M-factors and ATE					
10034-88-5	231-665-7	sodium hydrogensulphate	20 - < 25 %				
	inhalation: LC50 = > 2,4 mg/l (dusts or mists); oral: LD50 = 2140 mg/kg						
7664-93-9	231-639-5 sulphuric acid						
	oral: LD50 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15						

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. Call a doctor if you feel unwell.



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After contact with skin

Wash immediately with: Water 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

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Risk of serious damage to eyes. Irritant

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 Hazardous combustion products In case of fire may be liberated: Sulphur oxides Nitrogen oxides (NOx)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Avoid contact with skin, eyes and clothes.

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

General advice

Corrosive to metals.

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



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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.

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. When using do not eat, drink, smoke, sniff. Use personal protection equipment. Use extractor hood (laboratory). Provide adequate ventilation. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. 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. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

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.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Unsuitable container/equipment material: Metal

Further information on storage conditions

Corrosive to metals.

The product develops hydrogen in an aqueous solution in contact with metals.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection



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8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7664-93-9	Sulphuric acid	-	0.05		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance							
DNEL type		Exposure route	Effect	Value				
7664-93-9	sulphuric acid							
Worker DNEL, long-term inhalation local 0,05 mg/r				0,05 mg/m³				
Worker DNEL, acute		inhalation	local	0,1 mg/m³				

PNEC values

CAS No	Substance				
Environment	al compartment	Value			
10034-88-5	sodium hydrogensulphate				
Freshwater		11,09 mg/l			
Freshwater (i	intermittent releases)	17,66 mg/l			
Marine water		1,109 mg/l			
Freshwater s	ediment	40,2 mg/kg			
Marine sedim	4,02 mg/kg				
Micro-organis	800 mg/l				
Soil		1,54 mg/kg			
7664-93-9	sulphuric acid				
Freshwater		0,003 mg/l			
Marine water		0 mg/l			
Freshwater s	0,002 mg/kg				
Marine sediment 0,002 mg/kg					
Micro-organis	sms in sewage treatment plants (STP)	8,8 mg/l			

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles Face protection shield

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



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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 (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

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

Respiratory protection necessary at: aerosol or mist formation 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

Physical state: Colour: Odour:	Liquid colourless odourless	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and		No data available
boiling range:		
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		Х
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		<0,1
Viscosity / kinematic:		No data available
Water solubility:		very soluble (Heat)
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available



an analytichem brand according to Regulation (EC) No 1907/2006 Reagenz #1 - Ammoniummolybdatlösung zur photometrischen Kieselsäure-Bestimmung Revision date: 28.11.2024 Product code: 33872 Page 7 of 12 No data available Dispersion stability: Vapour pressure: No data available Vapour pressure: No data available Density (at 20 °C): 1,2938 g/cm³ Relative density: No data available Bulk density: No data available No data available Relative vapour density: Particle characteristics: No data available 9.2. Other information Information with regard to physical hazard classes Explosive properties No data available No data available Sustaining combustion: Self-ignition temperature Solid: No data available No data available Gas. 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

Corrosive to metals.

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

Metal

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available



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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.

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					
10034-88-5	sodium hydrogensulphate	sodium hydrogensulphate									
	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					
	inhalation (4 h) dust/mist	LC50 mg/l	> 2,4	Rat	Study report (2010)	OECD Guideline 436					
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					

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation. Serious eye damage/eye irritation: Causes serious eye damage. Risk of serious damage to eyes.

Sensitising effects

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

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

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

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

Risk of serious damage to eyes. Causes burns. Irritant Cough Dyspnoea Vomiting Gastric perforation Nausea Abdominal pain

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		
10034-88-5	sodium hydrogensulphate	sodium hydrogensulphate							
	Acute fish toxicity	LC50 mg/l	7960	96 h	Pimephales promelas	Environ. Toxicol. Chem.16(10):200 9-2019.	Toxicity tests followed the general guid		
	Acute crustacea toxicity	EC50 mg/l	1766	48 h	Daphnia magna	Environmental Toxicology and Chemistry,	eline: EPA, 1994, Methods for measuring		
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		

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.

BCF

CAS No	Chemical name	BCF	Species	Source
10034-88-5	sodium hydrogensulphate	0,5		Calculation

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.



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12.7. Other adverse effects

Avoid release to the environment.

Further information

Do not allow to enter into surface water or drains.

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

Handle contaminated packages in the same way as the substance itself. 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)	
<u>14.1. UN number or ID number:</u>	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)
14.3. Transport hazard class(es):	8
14.4. Packing group:	
Hazard label:	8
Classification code:	C1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)
14.3. Transport hazard class(es):	8
14.4. Packing group:	ll
Hazard label:	8
Classification code:	C1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 3264
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)
14.3. Transport hazard class(es):	8
14.4. Packing group:	ll
Hazard label:	8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	1 - acids
Air transport (ICAO-TI/IATA-DGR)	



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14.1. UN number or ID number: UN 3264 14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid) 14.3. Transport hazard class(es): 8 14.4. Packing group: II Hazard label: 8	11 of 12	
14.2. UN proper shipping name:CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8		
14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8		
14.4. Packing group:IIHazard label:8		
Hazard label: 8		
Special Provisions: A3 A803		
Limited quantity Passenger: 0.5 L		
Passenger LQ: Y840		
Excepted quantity: E2		
IATA-packing instructions - Passenger: 851		
IATA-max. quantity - Passenger: 1 L		
IATA-packing instructions - Cargo: 855		
IATA-max. quantity - Cargo: 30 L		
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS: No		
14.6. Special precautions for user Warning: strongly corrosive.		
14.7. Maritime transport in bulk according to IMO instruments not applicable		

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

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): 1,3,4,5,7,8,9,10,11,12,13,15.

Abbreviations and acronyms

Met. Corr: Substance or mixture corrosive to metals Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50%



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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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 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.)