

Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 1 of 10

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

1.1. Product identifier

Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

UFI:

WDNX-K12M-M00Y-R0D7

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

Use of the substance/mixture

Laboratory chemicals

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

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

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 Dange	rous Goods] Incidents Spill, Leak, Fire,
number:	•	REC Day or Night Within USA and Canada: Canada: +1 703-741-5970 (collect calls

Further Information

inapplicable, this product is a mixture REACH registration number see section 3

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Pictograms:



Hazard statements

H411

Toxic to aquatic life with long lasting effects.

Precautionary statements

ooddilonary oldi	
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to Dispose of contents/container in accordance with
	local/regional/national/international regulations.



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 2 of 10

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	REACH No	
	Classification (GB CLP Regulation	on)		
7758-98-7	copper sulphate			
	231-847-6	029-004-00-0		
	Acute Tox. 4, Skin Irrit. 2, Eye D H400 H410	am. 1, Aquatic Acute 1, Aquatic Chro	onic 1; H302 H315 H318	

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

Specific Conc	Specific Conc. Limits, M-factors and ATE				
CAS No	EC No	Chemical name	Quantity		
	Specific Conc. Limits, M-factors and ATE				
7758-98-7	231-847-6	copper sulphate	< 1 %		
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 482 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10				

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.

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.

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



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 3 of 10

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 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.

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

Handle and open container with care. Keep container tightly closed. Do not breathe vapour/aerosol.



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023	Product code: 21902	Page 4 of 10
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.

Hints on joint storage

No data available

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

PNEC values

CAS No	Substance		
Environmental compartment Value			
7758-98-7	copper sulphate		
Freshwater		0,0078 mg/l	
Marine water		0,0052 mg/l	
Freshwater se	diment	87 mg/kg	
Marine sedime	ent	676 mg/kg	
Micro-organisms in sewage treatment plants (STP)		0,23 mg/l	
Soil		65 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

Eye/face protection

goggles

Hand protection

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: vertrieb@kcl.de with the following specification (test according to EN 374):

By long-term hand contact Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with permanent contact: >480min



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 5 of 10

By short-term hand contact Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with occasional contact (splashes): >480min

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

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

	lical properties	
5	Liquid	
Colour:	blue	
0.000	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:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		2,8
Viscosity / kinematic:		No data available
Water solubility:		No data available
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		1,00556 g/cm³
Bulk density:		No data available
Relative vapour density:		No data available
9.2. Other information		
Information with regard to physical haza	rd classes	
Explosive properties		
No data available		
Sustaining combustion:		No data available
Self-ignition temperature		
Solid:		No data available



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023	Product code: 21902	Page 6 of 10
Gas: Oxidizing properties	No data available	
No data available		
Other safety characteristics		
Evaporation rate:	No data available	
Solvent separation test:	No data available	
Solvent content:	No data available	
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

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 GB CLP Regulation

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



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 7 of 10

CAS No	Chemical name	Chemical name				
	Exposure route	Dose		Species	Source	Method
7758-98-7	copper sulphate	copper sulphate				
	oral	LD50 mg/kg	482	Rat	Study report (1994)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1993)	OECD Guideline 402

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

There are no data available on the mixture itself.



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 8 of 10

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
7758-98-7	copper sulphate						
	Acute fish toxicity	LC50 mg/l	0,193	96 h	Pimephales promelas	Study report (1996)	measurements were conducted by standard
	Acute algae toxicity	ErC50 mg/l	0,152		Pseudokirchneriella subcapitata	Publication (2005)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,007	48 h	Daphnia magna	Study report (1978)	- Test were conducted on Daphnia magna t
	Fish toxicity	NOEC mg/l	0,123	12 d	Atherinops affinis	Mar. Environ. Res. 31: 17-35 (1991)	Three tests are reported, designed to de
	Algae toxicity	NOEC mg/l	0,0102		other aquatic plant: giant kelp Macrocystis pyrife	Mar. Ecol. Prog. Ser. 68: 147 - 156 (199	Tests were conducted to determine the ef
	Crustacea toxicity	NOEC mg/l	0,033		Penaeus mergulensis and Penaeus monodon	Bull. Environ. Contain. Toxicol. (1995)	The effects of dissolved copper on the g

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
7758-98-7	copper sulphate	0,02 - 20	Crangon crangon	Symp. Biologica. Hun

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 UK REACH. There are no data available on the mixture itself.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

There are no data available on the mixture itself.

Further information

Do not 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

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



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023

Product code: 21902

Page 9 of 10

SECTION 14: Transport information

and transport (ADR/RID)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-
nland waterways transport (ADN)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.2. On proper empony name.	(copper sulphate)
<u>14.3. Transport hazard class(es):</u>	9
14.4. Packing group:	
Hazard label:	9
Special Provisions:	274, 335, 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
Special Provisions:	A97 A158 A197
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L



Elektrolyt, zur Bestimmung der Porosität der Innenbeschichtung von Aluminiumtuben....

Revision date: 05.12.2023	Product code: 21902	Page 10 of 10
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	Yes	
Danger releasing substance:	copper sulphate	
14.6. Special precautions for user		
No dangerous good in sense of this tr	ansport regulation.	
14.7. Maritime transport in bulk according	o 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

Restrictions on use (REACH, annex XVII): Entry 3, Entry 75

National regulatory information

Water hazard class (D):

3 - highly hazardous to water

Additional information

No data available

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9.

Abbreviations and acronyms

Acute Tox: Acute toxicity Skin Irrit: Skin irritation Eye Dam: Eye damage Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.
Toxic to aquatic life with long lasting effects.

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