

according to Regulation (EC) No 1907/2006

Ätzmischung zur Strukturierung DI-Wasser: Schwefelsäure 96 % : Salzsäure 37 % 1:1:1 - gravimetrisch

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

1.1. Product identifier

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UFI: 7GE1-E325-300J-8FA2

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

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
 number:
 For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,
 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 Corr. 1A; H314 Eye Dam. 1; H318 STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

sulphuric acid Hydrochloric acid

Signal word: Danger



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Pictograms:





Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

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.

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					
	EC No	Index No	REACH No			
	Classification (Regulation (EC) N	o 1272/2008)				
7664-93-9	sulphuric acid					
	231-639-5	016-020-00-8	01-2119458838-20			
	Met. Corr. 1, Skin Corr. 1A, Eye	ye Dam. 1; H290 H314 H318				
7647-01-0	Hydrochloric acid					
	231-595-7	017-002-01-X 01-2119484862-27				
	Skin Corr. 1B, STOT SE 3; H314 H335					

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. L	imits, M-factors and ATE			
7664-93-9	231-639-5	sulphuric acid	30 - < 35 %		
		0 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 2; H319: >= 5 - < 15			
7647-01-0	231-595-7	231-595-7 Hydrochloric acid			
	Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100				

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).



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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air.

Call a physician immediately.

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.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Causes burns.

Irritant

Cough

Dyspnoea

Vomitina

Risk of serious damage to eyes.

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

Hydrogen chloride (HCI)

5.3. Advice for firefighters

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

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



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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

General advice

Corrosive to metals. 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).

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.

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

Do not breathe vapour/aerosol. Use extractor hood (laboratory).

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. 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



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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

Corrosive to metals.

Unsuitable container/equipment material: Metal

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

Further information on storage conditions

Keep container tightly closed.

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
7647-01-0	Hydrogen chloride	5	8		TWA (8 h)	
		10	15		STEL (15 min)	
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/m³		
7647-01-0	Hydrochloric acid					
Worker DNEL, long-term		inhalation	local	8 mg/m³		
Worker DNEL, acute		inhalation	local	15 mg/m³		
Consumer DNEL, long-term		inhalation	local	8 mg/m³		
Consumer DNEL, acute		inhalation	local	15 mg/m³		

PNEC values

CAS No	Substance			
Environmental compartment Value		Value		
7664-93-9 sulphuric acid				
Micro-organisms 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



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Eye/face protection

goggles

Wear eye/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

Recommended glove articles: KCL 720 Camapren®

Recommended material: CR (polychloroprene, chloroprene rubber) 0,65 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) 0,11mm Wearing time with occasional contact (splashes): > 120 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.

Thermal hazards

No data available

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: Liquid
Colour: colourless
Odour: stinging

Odour threshold: No data available

Test method

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Flammability: No data available ISO 10156

Lower explosion limits:No data availableUpper explosion limits:No data availableFlash point:No data availableAuto-ignition temperature:No data available



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Decomposition temperature: No data available pH-Value:

No data available Viscosity / kinematic: Water solubility: completely miscible

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 No data available Vapour pressure: No data available Vapour pressure: No data available Density: No data available Relative density: 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

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: 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 No data available Flow time:

Further Information

Corrosive to metals.

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

Alkali (lye)

10.4. Conditions to avoid

No data available



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10.5. Incompatible materials

Cellulose

Metal

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

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

There are no data available on the preparation/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					
7664-93-9	sulphuric acid					
	oral	LD50 mg/kg	2140		1969 Sep-Oct; 30(5):	The study was performed as part of a ser

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

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

Following ingestion Gastric perforation

Irritating to respiratory system.

Pulmonary oedema see also Section 4

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

May cause respiratory irritation. (Hydrochloric acid)

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 preparation/mixture itself.



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Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

Other information

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/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	
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	
7647-01-0	Hydrochloric acid							
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus			

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

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

Discharge into the environment must be avoided.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations



according to Regulation (EC) No 1907/2006

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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

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

14.1. UN number or ID number: UN 3264

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid,

Hydrochloric acid)

14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: 8 Classification code: C1 **Special Provisions:** 274 Limited quantity: 1 L Excepted quantity: F2 Transport category: 2 Hazard No: 80 Tunnel restriction code: Ε

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,

Hydrochloric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Classification code:C1Special Provisions:274Limited quantity:1 LExcepted 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,

Hydrochloric acid)

14.3. Transport hazard class(es): 8 Ш 14.4. Packing group: Hazard label: R **Special Provisions:** 274 Limited quantity: 1 I Excepted quantity: F2 EmS: F-A, S-B Segregation group: 1 - acids

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3264



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14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid,

Hydrochloric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Special Provisions:A3 A803Limited quantity Passenger:0.5 LPassenger LQ:Y840Excepted quantity:E2

IATA-packing instructions - Passenger:851IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:855IATA-max. quantity - Cargo:30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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):

Acquisition, introduction, possession or use of this product by the general public is restricted 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): 1,2,4,5,6,8,9,10,11,12,14,15.

Abbreviations and acronyms

Met. Corr: Substance or mixture corrosive to metals

Skin Corr: Skin corrosion Eye Dam: Eye damage

STOT SE: Specific target organ toxicity - single exposure

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

3 · · · · · · · · · · · · · · · · · · ·						
Classification	Classification procedure					
Met. Corr. 1; H290	On basis of test data					
Skin Corr. 1A; H314	Calculation method					
Eye Dam. 1; H318	Calculation method					
STOT SE 3; H335	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.

H318 Causes serious eye damage.



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H335

May cause respiratory irritation.

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.)