

# Reagent 781257

Revision date: 19.02.2025

Product code: 781257

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

## 1.1. Product identifier

Reagent 781257

UFI:

KEPS-P7X2-U20Y-59HV

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

### **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

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

Regulation (EC) No 1272/2008 Hazard components for labelling sulphuric acid Signal word: Danger

Pictograms:



Hazard statements H290

May be corrosive to metals.



### according to Regulation (EC) No 1907/2006

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H314	Causes severe skin burns and eye damage.						
Precautionary statemer	nts						
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	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	EC No Index No REACH No					
	Classification (Regulation (EC) No 1272/2008)						
7664-93-9	sulphuric acid	sulphuric acid					
	231-639-5	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. L	ecific Conc. Limits, M-factors and ATE				
7664-93-9	231-639-5	sulphuric acid	25 - < 30 %			
	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**

Self-protection of the first aider

## 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



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apart and consult an ophthalmologist.

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

Irritant corrosive

## 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: Hydrogen chloride (HCI) Nitrogen oxides (NOx)

### 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. 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.

### 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



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# 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.

## 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 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 Keep container tightly closed.

## Hints on joint storage

#### national regulations

### Further information on storage conditions

Protect against: Light, Sulphur dioxide (SO2), Heat storage temperature: <= +8°C

#### 7.3. Specific end use(s)

Laboratory chemicals

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters



according to Regulation (EC) No 1907/2006

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## 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

Substance						
	Exposure route	Effect	Value			
sulphuric acid	·	-				
long-term	inhalation	local	0,05 mg/m³			
Worker DNEL, acute inhalation local 0,1 mg/m³						
	sulphuric acid ong-term	Exposure route   sulphuric acid   ong-term   inhalation	Exposure route Effect   sulphuric acid ong-term inhalation			

#### **PNEC** values

CAS No	Substance		
Environmental compartment Value			
7664-93-9 sulphuric acid			
Freshwater 0,003 mg/l			
Marine water	0 mg/l		
Freshwater sed	0,002 mg/kg		
Marine sediment			
Micro-organisms in sewage treatment plants (STP) 8,8			

#### 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 goggles

Wear eye/face protection.

### 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 730 Camatril® Velours Recommended material: NBR (Nitrile rubber) 0,4 mm Wearing time with permanent contact: > 480 min

By short-term hand contact Trade name/designation: KCL 720 Camapren® Recommended material: CR (polychloroprene, chloroprene rubber) 0,65 mm Wearing time with occasional contact (splashes): > 480 min



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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

<u>9.1. Information on basic physical and che</u>			
Physical state: Colour:	Liquid colourless		
Odour:	odourless		
Odour threshold:	No data available		
Odour inication.			
			Test method
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:		acidic	
Viscosity / kinematic:		No data available	
Water solubility:		completely miscible	
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:		1,214 g/cm³	ASTM D 1296
Bulk density:		No data available	
Relative vapour density:		No data available	
9.2. Other information			
Information with regard to physical ha	zard classes		
Explosive properties			
No data available			

No data available

Sustaining combustion:

Self-ignition temperature



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Solid:	No data available	
Gas:	No data available	
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	
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

Protect against: Light, Sulphur dioxide (SO2), Heat storage temperature: <= +8°C

# 10.3. Possibility of hazardous reactions

Alkali (lye)

## 10.4. Conditions to avoid

Protect against: Light, Sulphur dioxide (SO2), Heat storage temperature: <= +8°C

### 10.5. Incompatible materials

No data available

# 10.6. Hazardous decomposition products

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

#### SECTION 5. Theighting h

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



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CAS No	Chemical name							
	Exposure route Dose Species Source Method							
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 severe skin burns and eye damage. Serious eye damage/eye irritation: Causes serious eye damage.

### 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.

#### 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

#### 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		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	Vol. 11, 612 - 626,	Groups of sexually mature flagfish

### 12.2. Persistence and degradability

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



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# 12.3. Bioaccumulative potential

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

### 12.4. Mobility in soil

There are no data available on the preparation/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**

### 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.

# **SECTION 14: Transport information**

## Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	UN 2796
14.2. UN proper shipping name:	SULPHURIC ACID
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C1
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 2796
14.2. UN proper shipping name:	Sulphuric acid
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C1
Limited quantity:	1 L
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 2796
14.2. UN proper shipping name:	SULPHURIC ACID
14.3. Transport hazard class(es):	8



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			r ugo ro or rr
14.4. Packing group:			
Hazard label:	8		
Special Provisions:	-		
Limited quantity:	1 L		
Excepted quantity:	E2		
EmS:	F-A, S-B		
Air transport (ICAO-TI/IATA-DGR)			
14.1. UN number or ID number:	UN 2796		
14.2. UN proper shipping name:	SULPHURIC ACID		
14.3. Transport hazard class(es):	8		
14.4. Packing group:	II		
Hazard label:	8		
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			
No dangerous good in sense of this tra			
14.7. Maritime transport in bulk according t			
No dangerous good in sense of this tra	ansport regulation.		
SECTION 15: Regulatory information			
15.1. Safety, health and environmental regu	<u>lations/legislation</u> sp	ecific 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			

the relevant national contact point.

## 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): 9,12.

## Abbreviations and acronyms

Met. Corr: Substance or mixture corrosive to metals Skin Corr: Skin corrosion Eye Dam: Eye damage



according to Regulation (EC) No 1907/2006

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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 Corr. 1A; H314	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.
H318	Causes serious eve damage

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 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.)