Safety data sheet
according to
Regulation VO (EG) 1907/2006

created: 01.07.2019
updated: 31.01.2019

Section 1 Identification of the substance/mixture and the company

1.1	Produktidentifikator	**HydroQuant® Reagenz Cl-2**
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Use of substance	Reagent solution for the determination of chlorine/ozone
1.3	Supplier	WAPOTEC GmbH Franz-Sauer-Str. 44 A-5020 Salzburg Tel: +43 662 434342-0 Fax: +43 662 434342-3
	Contact	Mr. G. Weiss Email: office@wapotec.at
1.4	Emergency phone	+43 662 43 43 42-0 Office hours: MO - TH: 8.00 - 16.00 FR: 8.00 - 12.00 **Toxicity information center Vienna:** Phone: +43 1 406 43 43 Available 0-24h

Section 2 Hazards identification

2.1 Hazard classification of substance or mixture

according to Directive (EC) N° 1272/2008

Hazard categories:
Skin corrosion/ irritation: Skin corrosive 1
Severe eye damage/eye irritation: Eye damage1
Hazard statements:
Causes severe skin burns and eye damage.
Causes severe eye damage.

2.2 Identification labeling

according to Directive (EC) 1272/2008

Danger

Gefahrenhinweise

H314	Causes severe skin burns and eye damage

Precautionary statements

P101	If medical advice is required, have packaging or label at hand.
P102	Keep out of reach of children.
P280	Wear protective gloves/protective clothing/eye protection/face 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	Call a POISON CENTER/physician immediately.
P501	Dispose of contents/container in accordance with government regulations.

2.3 Other hazards

There is no information available.

Section 3 Composition/information on ingredients

3.2 Mixtures

Chemical characteristics

Sulphuric solution

Dangerous ingredients

Name	CAS # / EC # / Index #	Conc.. %	Classification according to Regulation (EC) 1272/2008*	
Sulphuric acid	7664-93-9 / 231-639-5 / 016-020-00-8	5- <10 %	Met. corr.1 Skin corr.1A	H290 H314
N, N-diethylene-1.4-phenylene-diammonium-sulphate	6283-63-2 / 228-500-6 / ---	1-< 5%	Akut tox. 4	H302

*For the wording of H-phrases and danger classification see section 16.

Section 4 First-aid measures

4.1 Description of first-aid measures

General information

First-aider: Watch out for self-protection! Remove affected person from the danger area and lay down.

- After inhalation

Provide fresh air. In case of breathing difficulties or respiratory arrest, initiate artificial respiration. Medical treatment necessary.

- After skin contact

After contact with skin, wash immediately with plenty of water. Take off all contaminated clothing immediately and wash before reuse. Get medical advice / attention.

- After eye contact

In case of contact with eyes, rinse immediately with plenty of running water for 10 to 15 minutes holding eyelids apart and consult an ophtalmologist.

- After ingestion

Observe the risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. DO NOT induce vomiting. Adverse human effects and possible symptoms: Gastric perforation. Seek medical attention immediately. Do not allow to drink neutralizing agent.

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

No information available.

4.3 Indications of immediate medical attention and special treatment needed.

Treat symptomatically.

Section 5 Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media

Adapt extinguishing media to environment.

5.2 Special hazards arising from the substance or mixture

Non-flammable.

5.3 Special protective actions for fire fighters

- Special protective equipment

Wear a self-contained breathing apparatus and chemical protective suit. Full protective suit.

- Additional information

Use a water spray to protect personnel and to cool endangered containers. Knock down gas/vapour/mist with water spray jet. Collect contaminated extinguishing water separately. Do not empty into drains or watercourses.

Section 6 Accidental release of material

6.1 Personal precautions, protective equipment and suitable emergency procedures.

Ensure adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

6.2 Environmental precautions

Do not allow to enter drains or watercourses.

6.3 Methods and material for containment and cleaning up.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Dispose of the collected material in accordance with section 13 Disposal.

6.4 Reference to other sections

Safe handling: see section 7
Personal protective equipment: see section 8.
Disposal: see section 13

Section 7 Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation. Do not inhale gas/fumes/vapour/aerosols.

Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Advice on protection against fire and explosion

No special fire protection measures required

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible only to authorised persons. Ensure adequate ventilation and point extraction at critical locations.

- Hints on joint storage:

  Do not store together with: Base, Peroxides, Oxidizing agent.

- Material incompatibility

Corrosive to metals.

- Recommended storage temperature — Protect from heat and direct sunshine.
- Storage class acc. to TRGS 510 — 8 B non-flammable, caustic substances.

7.3 Specific end uses

Spec. analysis (water)

Section 8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (TRGS 900)

CAS-Nr.	Substance	ppm	mg/m³	F/m³	Peak limit	Type
7664-93-9	Sulphuric acid		0.1 E		1 (I)	

Exposure limits (EH40)

CAS-Nr.	Chemical name	ppm	mg/m³	Fibres/ml	Category	Type
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8h)	WEL

DNEL-/DMEL-Value

CAS-Nr.	Chemical name				
		Route of exposure	Effect	Value	
7664-93-9	Sulphuric acid				
Employees DNEL, acute		inhalation	local	0.1 mg/m³	
Employees DNEL, long-term		inhalation	local	0.05 mg/m³	

PNEC-Value

CAS-Nr.	Chemical name
Environmental compartment	Value
7664-93-9	Sulphuric acid
Fresh water	0.0025 mg/l
Marine water	0.00025 mg/l
Freshwater sediment	0.002 mg/kg
Marine sediment	0.002 mg/kg
Microorganisms in sewage treatment plants (STP)	8.8 mg/l

8.2 Exposure controls

- Appropriate engineering controls

Provide adequate ventilation as well as point extraction at critical locations.

- General protective and hygienic measures

Immediately remove contaminated, soaked clothing. Create and observe skin protection plan! Wash hands and face thoroughly before breaks and after work, shower if necessary. Do not eat or drink during work. Do not inhale gas/fumes/vapour/spray.

- Eye/face protection

Suitable eye protection: Wear fully closed and tight-fitting goggles/protective goggles/face protection.

- Hand protection

Wear protective gloves.

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

for the workplace depending on the concentration and quantity of hazardous substances. It is recommended to check the chemical resistance of the above-mentioned protective gloves for special applications with the glove manufacturer.

- Body protection

Wear suitable protective clothing when working.

- Respiratory protection

Wear respiratory protection if ventilation is inadequate.

- Environmental exposure controls

Do not allow to enter drains or watercourses.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties.

Appearance	Liquid
Colour	Colourless
Odour	Odourless
pH value (20 °C)	< 2
Changes of physical state	
Melting point	not determined
Initial boiling point and boiling range	not determined
Flash point	not determined
Flammability	
Solid	not applicable
Gas	not applicable
Explosion hazards	The product is not: Explosive
Lower explosion limit	not determined
Upper explosion limit	not determined
Ignition temperature	not determined
Auto-ignition temperature	
Solid	not applicable
Gas	not applicable
Decomposition temperature	not determined
Oxidizing properties	not oxidising
Vapour pressure	not determined
Density	not determined

Water solubility	Very soluble
Solubility in other solvants	not determined
Partition coefficient	not determined
Viscosity / dynamic	not determined
Viscosity / kinetic (bei 40 °C)	(estimated) 1 – 1.5 mm^2/s
Vapour density	not determined
Evaporation rate	not determined

9.2 Other information

Odour threshold: not applicable.

Section 10 Stability and reactivity

10.1 Reactivity

Possibility of hazardous reactions.

10.2 Chemical stability

The product is stable when stored at normal ambient temperatures.

10.3 Possibility of hazardous reactions

Exothermic reaction with: Base, Peroxides, Oxidizing agent.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Keep away from: Base, Peroxides, Oxidizing agent.

10.6 Hazardous decomposition products

No known hazardous decomposition products.

Section 11 Toxicological information

11.1 Information on toxicological effects

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

CAS-Nr.	Chemical name				
	Exposure route	Dose	Species	Source	Method
6283-63-2	N,N-diethyl-1,4-phenylendiammoniumsulfat				
	oral	LD50 497 mg/kg	Rat	Manufacturer	

- Irritation and corrosivity

Causes severe skin burns and eye damage.

- 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.

- Specific target organ toxicity (STOT) - single exposure

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

- Specific target organ toxicity (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.

Section 12 Ecological information

12.1 Toxicity

The product is not ecotoxic.

12.2 Persistence and degradibility

The product has not been tested.

12.3 Bioaccumulation potential

The product has not been tested.

Partition coefficient n-octanol/water.

CAS-Nr.	Chemical name	Log Pow
6283-63-2	N,N-diethyl-1,4-phenylendiammoniumsulfat	2,24

12.4 Mobility in soil

The product has not been tested.

12.5 Results of PBT and vPvB assessment

The product has not been tested.

12.6 Other adverse effects

No information available.

Further information

Do not allow to enter into drains or watercourses. Do not allow to enter into soil/subsoil.

Section 13 Disposal considerations

13.1 Waste treatment methods

- **Advice on disposal**

Do not allow to enter drains or watercourses. Do not allow to enter the soil/subsoil. Dispose of waste according to applicable legislation.

Disposal of contaminated packaging and recommended cleaning agents l

Non-contaminated and emptied packaging may be recycled. Handle contaminated packaging in the same way as the substance.

Section 14 Transport information

Landtransport (ADR/RID)

14.1 UN number

UN2796

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 (LQ): 1 L

Excepted quantity: E2

Transport category: 2

Hazard No: 80

Tunnel restriction code: E

Inland waterways transport (ADN)

14.1 UN number

UN2796

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 (LQ): 1 L

Excepted quantity: E2

Marine transport (IMDG)

14.1 UN-Nummer

UN2796

14.2 UN proper shipping name

Sulphuric acid

14.3 Transport hazard class(es): 8

14.4 Packing group: II

Hazard label: 8

Special Provisions: -

Limited quantity (LQ): 1 L

Excepted quantity: E2

EmS: F-A, S-B

Lufttransport (ICAO-TI/IATA-DGR)

14.1 UN-Nummer

UN2796

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 users

No information available.

14.7 Transport in bulk according to Annex II of MARPOL agreement 73/78 and according to IBC-Code

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: Sulphuric acid

Information acc. to SEVESO III-directive 2012/18/EU: Not subject to 2012/18/EU (SEVESO III)

National regulatory information

15.2 Employment restrictions: Observe restrictions to employment for juvenils according to the "juvenile work protection guideline" (94/33/EC).
Technical Instructions Air I: Does not fall under the technical instructions air.

Water contaminating class: 2 – clearly water contaminating
Status: Mixing rule according to Annex 1 No. 5 AwSV

Chemical safety assessment

Section 16 Other information

The product is only described with regard to safety requirements. Since unknown potential hazards can never be completely excluded, the product must be handled with the necessary care when handling chemicals and is only permitted for the uses listed in section 1.

Changes

This datasheet contains changes to the previous version in the section(s): 2, 4, 5, 6, 7, 8, 9, 10, 11, 14.

Abbreviations and acronyms

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 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%

Classification of mixtures and valuation method used according to Directive CLP (EC) N° 1272/2008. [CLP]

Classification	Classification procedure
Skin Corr. 1: H314	On basis of test data
Eye Dam. 1: H318	On basis of testdata

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Further information

The information is based on the current state of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. Existing laws and regulations must be observed by the recipient of our products on his own responsibility.

(The data of the hazardous ingredients were taken from the sub-contractor's latest valid safety data sheet.)