

Safety Data Sheet

according to UK REACH Regulation

Sulfuric acid 12% techn.

Revision date: 11.01.2024

Product code: 2001712

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Sulfuric acid 12% techn.

Substance name: Sulphuric acid
REACH Registration Number: 01-2119458838-20-XXXX
CAS No: 7664-93-9
Index No: 016-020-00-8
EC No: 231-639-5
UFI: AWW0-9VKA-9KKS-130X

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

water treatment chemical, laboratory chemicals .

Uses advised against

Do not use for injecting or spraying.

1.3. Details of the supplier of the safety data sheet

Company name: Bungard GmbH & Co. KG
Street: Rilkestraße 1
Place: D-51570 Windeck
Telephone: 02292 / 9 2828-0
e-mail: info@bungard.de
Internet: www.bungard.de
Responsible Department: Herr Bungard
02292 / 9 2828-0

Telefax: 02292 / 9 2828-29

1.4. Emergency telephone number:

Medizinische Notfallouskunft: Giftinformationszentrum Mainz – 24h – Tel.: +49
6131 19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Met. Corr. 1; H290
Skin Irrit. 2; H315
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation**

Signal word: Warning

Pictograms:

**Hazard statements**

H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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P101	If medical advice is needed, have product container or label at hand.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Additional advice on labelling

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008).

Labelling of packages where the contents do not exceed 125 ml**Signal word:** Warning**Pictograms:****2.3. Other hazards**

Causes severe burns.

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients**3.1. Substances****Chemical characterization**

Aqueous solution

Sum formula: H₂SO₄

Molecular weight: 98 g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7664-93-9	Sulphuric acid			5- 14,99 %
	231-639-5	016-020-00-8	01-2119458838-20-XXXX	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			

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. Limits, M-factors and ATE		
7664-93-9	231-639-5	Sulphuric acid	5- 14,99 %
	inhalation: LC50 = (0,375) mg/l (vapours); oral: LD50 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15		

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

Remove contaminated, saturated clothing immediately.

First-aid measures: Previn® (www.prevor.com). Show this safety data sheet to the doctor in attendance.

After inhalation

Provide fresh air. Medical treatment necessary.

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Evacuate personnel to safe areas. In case of lung irritation, first treatment with dexametason aerosol (spray). If there is a risk of loss of consciousness, place and transport affected person in the recovery position. Prolonged and repeated inhalation of decomposition products may cause a pulmonary oedema.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. (Polyethylene glycol 400, Roticlean). Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

After eye contact: seizures, Corneal opacity.

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects). Pulmonary oedema

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

In case of lung irritation, first treatment with dexametason aerosol (spray).

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

Water spray jet, Foam, Carbon dioxide (CO₂), Extinguishing powder

In case of major fire and large quantities: Water spray jet, alcohol-resistant foam.

Unsuitable extinguishing media

high volume water jet

5.2. Special hazards arising from the substance or mixture

Non-flammable.

Heating or fire can release toxic gas.

In case of fire may be liberated: Sulphur oxides, Sulphur trioxide (SO₃), Sulphur dioxide (SO₂), Hydrogen sulfide (H₂S), smoke.

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

5.3. Advice for firefighters

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

In the event of fire, cool tanks with water spray. Heating causes rise in pressure with risk of bursting.

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

Additional information

Suppress gases/vapours/mists with water spray jet. 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**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Keep people away from and upwind of spill/leak.

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6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Keep away from combustible material.

First-aid measures: Previn®, Diophtherine®

Neutralize with chalk, alkali solution or ammonia.

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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. When diluting, always add the product to water. Never add water to the product.

Advice on protection against fire and explosion

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

Advice on general occupational hygiene

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.

Further information on handling

Handle in accordance with good industrial hygiene and safety practice.

Eye wash bottle with pure water.

Incompatible with bases.

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 by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Unsuitable container/equipment material: Metal.

Store in original container. acid resisting floor

Hints on joint storage

Incompatible with bases. metals.

Keep away from combustible material.

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Store in a cool dry place. Protect from frost, heat and sunlight.
hygroscopic product

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7664-93-9	Sulphuric acid (mist)	-	0.05		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7664-93-9	Sulphuric acid			
Worker DNEL, long-term		inhalation	systemic	0,050 mg/m ³
Worker DNEL, acute		inhalation	local	0,100 mg/m ³

PNEC values

CAS No	Substance	Value
7664-93-9	Sulphuric acid	
Freshwater		0,0025 mg/l
Marine water		0,000250 mg/l
Freshwater sediment		0,002 mg/kg
Marine sediment		0,002 mg/kg
Micro-organisms in sewage treatment plants (STP)		8,8 mg/l

Additional advice on limit values

The lists that were valid during the compilation were used as basis.

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Suitable eye protection: goggles.

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.

Glove material:

FKM (fluoro rubber), Thickness of the glove material: 0,7 mm, Breakthrough time:: 480 min;

Butyl caoutchouc (butyl rubber), Thickness of the glove material: 0,5 mm, Breakthrough time:: 120 min.

Unsuitable material: NR (natural rubber, Natural latex), CR (polychloroprene, chloroprene rubber), NBR (Nitrile rubber), PVC (polyvinyl chloride).

Skin protection

Wear suitable protective clothing.

Material, acid-resistant

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Suitable respiratory protection apparatus: Filtering device (full mask or mouthpiece) with filter: B-P2,

Combination filtering device ABEK-P2.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	Colourless
Odour:	Odourless

Test method**Changes in the physical state**

Melting point/freezing point:	- 2 to -8 °C	5% - 15%
Boiling point or initial boiling point and boiling range:	approx. 100 °C	
Flash point:	not determined	

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosive properties

not explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not auto-flammable

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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pH-Value (at 20 °C):	< 1
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Viscosity / dynamic:	not determined
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Water solubility: (at 20 °C)	soluble
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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
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Vapour pressure:	not determined
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Density (at 20 °C):	1,03 - 1,11 g/cm ³	5% - 15%
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Relative vapour density:	not determined
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9.2. Other information**Information with regard to physical hazard classes**

Oxidizing properties
Not oxidising.

Other safety characteristics

Solid content:	not determined
Evaporation rate:	not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

Corrosive to metals.

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hygroscopic product

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Incompatible with strong acids and bases. Reacts violently with water. When diluting, always add the product to water. Never add water to the product. The product develops hydrogen in an aqueous solution in contact with metals.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Keep away from: Metal. acids, Alkali (lye), Substance, organic.

10.6. Hazardous decomposition products

Hydrogen

In case of fire may be liberated: Sulphur oxides

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7664-93-9	Sulphuric acid				
	oral	LD50 2140 mg/kg	Rat	Echa	
	inhalation (4 h) vapour	LC50 (0,375) mg/l	Rat		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

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.

Additional information on tests

Classification according to Regulation (EC) No 1272/2008 [CLP]: Health hazard properties

Practical experience

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

11.2. Information on other hazards**Endocrine disrupting properties**

not listed

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SECTION 12: Ecological information**12.1. Toxicity**

This product has no known eco-toxicological effects.

The product may cause changes in the pH in the aquatic environment and thereby cause harmful effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7664-93-9	Sulphuric acid					
	Acute fish toxicity	LC50 mg/l	16 - 28	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50 mg/l	> 100		Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna (Big water flea)	

12.2. Persistence and degradability

Inorganic product which is not eliminable from water through biological cleaning processes.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

Not expected to adsorb on soil. (Water solubility)

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

This substance does not meet the PBT/vPvB criteria of 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.

not listed

12.7. Other adverse effects

The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

060101 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; sulphuric acid and sulphurous acid; hazardous waste

List of Wastes Code - used product

060101 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; sulphuric acid and sulphurous acid; hazardous waste

List of Wastes Code - contaminated packaging

150199

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

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Land transport (ADR/RID)**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

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

14.4. Packing group:

II

Hazard label:

8



Special Provisions:

-

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-A, S-B

Segregation group:

acids

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



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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, Entry 75

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information**Changes**

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

Abbreviations and acronymsADR: 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%

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.
H319	Causes serious eye irritation.

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Further Information

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.

Supplier: 88313