

Silver sulfate-Sulfuric acid solution**34629-2.5L**

Version 1.1

Issuing date 01/17/2017

Revision Date 05/26/2017

Print Date 06/29/2019

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : Silver sulfate-Sulfuric acid solution

Number : 000000021872

Recommended use of the chemical and restrictions on use : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

For further information, please contact: : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
: **In Japan: +(81)-345209637**
: (24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Classification of the substance or mixture : Skin corrosion, Category 1A
Serious eye damage, Category 1
Acute aquatic toxicity, Category 1
Chronic aquatic toxicity, Category 1

GHS Label elements, including precautionary statements

Symbol(s) :



Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.

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Very toxic to aquatic life with long lasting effects.

Precautionary statements**: Prevention:**

Wash skin thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/ physician.

Wash contaminated clothing before reuse.

Collect spillage.

Storage:

Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Mixture

Chemical name	CAS-No.	Concentration
Sulfuric Acid	7664-93-9	>=90.00 - <=100.00 %
Sulfuric Acid		
Water	7732-18-5	>=1.00 - <5.00 %
Water		
Silver sulfate	10294-26-5	>=0.25 - <2.50 %
Silver sulfate		

Note: Designated Substances Class 3

Note: Substances Subject to be Notified Names

Note: Deleterious Substances - Cabinet Order

Note: Corrosive liquid Article 326

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Note: Fire Service Law ; Obstacle substance to fire-fighting

4. FIRST AID MEASURES

- General advice : First aider needs to protect himself.
Move out of dangerous area.
Take off all contaminated clothing immediately.
Show this safety data sheet to the doctor in attendance.
- Inhalation : If inhaled, remove to fresh air.
If breathing is difficult, give oxygen.
Use oxygen as required, provided a qualified operator is present.
Call a physician immediately.
- Skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Take off immediately all contaminated clothing.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- Eye contact : Protect unharmed eye.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Call a physician immediately.
- Ingestion : Rinse mouth with water.
If victim is fully conscious, give a cupful of water.
Do NOT induce vomiting.
Call a physician immediately.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Foam
Carbon dioxide (CO₂)
Dry powder
- Unsuitable extinguishing media : Water
- Specific hazards during firefighting : Fire may cause evolution of:
Sulphur oxides
metal oxides
- Special protective equipment : In the event of fire and/or explosion do not breathe fumes.

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for firefighters

Wear self-contained breathing apparatus and protective suit.
No unprotected exposed skin areas.

Further information

: Use extinguishing measures that are appropriate to local
circumstances and the surrounding environment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions,
protective equipment and
emergency procedures

: Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons
must be kept away.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.
Do not swallow.

Environmental precautions

: Prevent further leakage or spillage if safe to do so.
Should not be released into the environment.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform
respective authorities.

Methods and materials for
containment and cleaning up

: Ventilate the area.
Dilute with water.
Neutralise with the following product(s):
lime
Contain spillage, soak up with non-combustible absorbent
material, (e.g. sand, earth, diatomaceous earth, vermiculite)
and transfer to a container for disposal according to local /
national regulations (see section 13).
Never neutralise with the following products:
soda ash

7. HANDLING AND STORAGE**Handling**

Precautions for safe handling

: Handle with extreme care.
Wear personal protective equipment.
Use only in well-ventilated areas.
Use only acid resistant equipment.
When diluting, always add the product to water. Never add
water to the product.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.

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Advice on protection against fire and explosion : The product itself does not burn.
Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities : Storage rooms must be properly ventilated.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep in an area equipped with acid resistant flooring.
Do not store near combustible materials.
Store in upright position only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Sulfuric Acid Sulfuric Acid	7664-93-9	TLV-C : Ceiling Limit Value	1 mg/m3	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value
Silver sulfate Silver sulfate	10294-26-5	TWA : Time weighted average	0.01 mg/m3	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendatio n value
Further information	:	Expressed as : as Ag			

Appropriate engineering controls

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Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	: Impervious gloves Gloves must be inspected prior to use. Replace when worn.
Eye protection	: Safety goggles Face-shield
Skin and body protection	: Wear suitable protective equipment. Wear as appropriate: acid-proof protective clothing
Hygiene measures	: Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Keep working clothes separately. Wash hands before breaks and at the end of workday. When using do not eat or drink.
Protective measures	: Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Do not swallow. Do not breathe vapours or spray mist. Do not get in eyes, on skin, or on clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Colour	: colourless
Odour	: odourless
pH	: Note: acidic
Melting point/range	: Note: no data available
Boiling point/boiling range	: 338 °C at 1,013 hPa Note: The physical data is that of the main component.

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Flash point	: Note: Not applicable
Flammability	: Not applicable
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapour pressure	: Note: no data available
Density	: ca. 1.85 g/cm ³ at 20 °C
Water solubility	: Note: completely miscible
Partition coefficient: n-octanol/water	: Note: Not applicable
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable
Decomposition temperature	: Note: No decomposition if used as directed.
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Bulk density	: Note: Not applicable
Corrosivity	: Note: Not corrosive to metals

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Reacts violently with water. Hazardous polymerisation does not occur.

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Conditions to avoid	: Corrodes metals in the presence of water or moisture.
Incompatible materials to avoid	: Gives off hydrogen by reaction with metals. When diluting, add acids to water, never the other way around. On dilution or dissolving in water, considerable heating always occurs.
Hazardous decomposition products	: Sulfur oxides (SO _x) metal oxides

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Acute inhalation toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Acute dermal toxicity	: Note: Toxicity is determined by the corrosivity of the product.
Skin irritation	: Test substance: Sulphuric acid Note: Extremely corrosive and destructive to tissue.
Eye irritation	: Test substance: Sulphuric acid Note: Extremely corrosive and destructive to tissue.
Sensitisation	: Note: no data available
Genotoxicity in vitro	: Test substance: Sulphuric acid Note: Not classified due to data which are conclusive although insufficient for classification.
Further information Silver sulfate	: Risk of serious damage to eyes.

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12. ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish : Note: no data available

Toxicity to daphnia and other aquatic invertebrates : Note: no data available

Toxicity to algae : Note: no data available

Persistence and degradability

Biodegradability : Note: no data available

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Disposal methods : In accordance with local and national regulations.

14. TRANSPORT INFORMATION**ADR**

UN/ID No. : UN 3264

Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(SULPHURIC ACID, DISILVER(1+) SULPHATE)

Class : 8

Packing group : II

Classification Code : C1

Hazard Identification Number : 80

Labels : 8

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IATA

UN/ID No. : UN 3264
Description of the goods : Corrosive liquid, acidic, inorganic, n.o.s.
(Sulphuric acid, Disilver(1+) sulphate)
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (passenger aircraft) : Y840

IMDG

UN/ID No. : UN 3264
Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(SULPHURIC ACID, DISILVER(1+) SULPHATE)
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : yes

15. REGULATORY INFORMATION**National regulatory information**

Vessel Safety Law : Corrosive substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
JP VSL

Aviation Law : Corrosive substances (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
JP AVL

Other international regulations**Notification status**

US. Toxic Substances : On TSCA Inventory
Control Act

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Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: -	3
Flammability	: -	0
Physical Hazard	: -	
Instability	:	2
Special hazard.	:	W

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group