

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1816-49 Sulfide 1 Reagent**

Revision date: 07.02.2017

Product code: 181649

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

1816-49 Sulfide 1 Reagent

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

Water analysis

**1.3. Details of the supplier of the safety data sheet**

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

**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.

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H314 Causes severe skin burns and eye damage.

#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P310 Immediately call a POISON CENTER/doctor.  
 P390 Absorb spillage to prevent material damage.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

no data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7664-93-9	sulphuric acid ... %	55-65 %
	231-639-5	016-020-00-8
	Skin Corr. 1A; H314	
7732-18-5	Water	35-45 %
	231-791-2	

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Take off all contaminated clothing immediately.  
 Show this safety data sheet to the doctor in attendance.

#### After inhalation

Move to fresh air. Consult a physician.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.  
 Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Show this safety data sheet to the doctor in attendance.

#### After contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately.

#### After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water.  
 Never give anything by mouth to an unconscious person.  
 Call a physician immediately.

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

Irritation and corrosion

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

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

##### **Unsuitable extinguishing media**

Water

#### **5.2. Special hazards arising from the substance or mixture**

The product itself does not burn.

Gives off hydrogen by reaction with metals. Reacts violently with water.

Fire may liberate hazardous vapours.

#### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

#### **Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

Do not breathe vapours, mist or gas. Ensure adequate ventilation.

#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

#### **6.3. Methods and material for containment and cleaning up**

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).

#### **6.4. Reference to other sections**

13. Disposal considerations

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use only in well-ventilated areas.

##### **Advice on protection against fire and explosion**

None known.

See also section 5

##### **Further information on handling**

Observe label precautions.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed in a dry and well-ventilated place.

Keep at temperatures between 10 and 25 °C.

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#### Hints on joint storage

Protect against Bases, Oxidizing agents, Metals

#### Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

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

Laboratory chemicals

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

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

#### Additional advice on limit values

None known.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

##### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

General industrial hygiene practice.

Wash hands before breaks and at the end of workday.

##### Eye/face protection

Safety glasses with side-shields

##### Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: &gt;480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: &gt; 30 min

##### Skin protection

Avoid contact with skin, eyes and clothing.

##### Respiratory protection

Ensure adequate ventilation, especially in confined areas.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value (at 20 °C):	< 0,5

#### Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable

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Softening point:	no data available
Pour point:	no data available
Flash point:	not applicable
<b>Flammability</b>	
Solid:	not applicable
Gas:	not applicable
<b>Explosive properties</b>	
not applicable	
Lower explosion limits:	no data available
Upper explosion limits:	no data available
Ignition temperature:	no data available
<b>Auto-ignition temperature</b>	
Solid:	no data available
Gas:	no data available
Decomposition temperature:	no data available
<b>Oxidizing properties</b>	
no data available	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,500 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility: (at 20 °C)	miscible
<b>Solubility in other solvents</b>	
no data available	
Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available

**9.2. Other information**

Solid content:	not applicable
Corrosive in contact with metals Mild steel: 0,048 mm/yr	

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

Corrosive to metals

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Reacts with the following substances: acetic acid, Oxidizing agents, Solvent, Alkali metals

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#### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Decomposes on heating.

#### 10.5. Incompatible materials

Bases, Oxidizing agents

#### 10.6. Hazardous decomposition products

Gives off hydrogen by reaction with metals.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### **Toxicokinetics, metabolism and distribution**

No toxicology information is available.

##### **Acute toxicity**

No data is available on the product itself.

##### **Irritation and corrosivity**

Causes severe burns.

##### **Sensitising effects**

No known effect.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Contains no ingredient listed as a carcinogen

##### **STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

##### **STOT-repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

##### **Aspiration hazard**

No aspiration toxicity classification

##### **Specific effects in experiment on an animal**

No toxicology information is available.

##### **Additional information on tests**

None known.

##### **Further information**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data is available on the product itself.

#### 12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

#### 12.3. Bioaccumulative potential

No data is available on the product itself.

#### 12.4. Mobility in soil

no data available

#### 12.5. Results of PBT and vPvB assessment

no data available

#### 12.6. Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

In accordance with local and national regulations.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 1830
<b>14.2. UN proper shipping name:</b>	Sulphuric acid
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	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)

#### Other applicable information (inland waterways transport)

Not tested

### Marine transport (IMDG)

<b>14.1. UN number:</b>	UN 1830
<b>14.2. UN proper shipping name:</b>	Sulphuric acid
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8



Special Provisions:	-
Limited quantity:	1 L

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Excepted quantity: E2  
EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 1830  
**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 data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not relevant

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P  
These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).  
Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 7.02.2017  
Safety datasheet sections which have been updated: 2  
Revision: 15.06.2015  
Safety datasheet sections which have been updated: 2 - 16

**Relevant H and EUH statements (number and full text)**

H290 May be corrosive to metals.



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H314 Causes severe skin burns and eye damage.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*