

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**191520 Mercuric Sulfate**

Revision date: 04.12.2017

Product code: 191520

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

191520 Mercuric Sulfate

**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:

Acute toxicity: Acute Tox. 1

Acute toxicity: Acute Tox. 2

Acute toxicity: Acute Tox. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Fatal in contact with skin.

Fatal if inhaled.

Fatal if swallowed.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

Mercury(II) sulfate

**Signal word:** Danger

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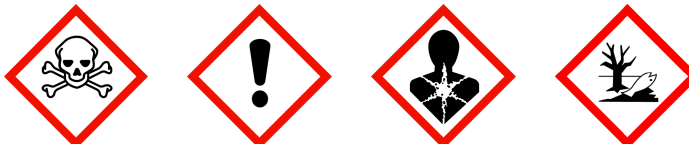
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**Pictograms:**

**Hazard statements**

H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P270	Do not eat, drink or smoke when using this product.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER.

**Additional advice on labelling**

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

**2.3. Other hazards**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 3: Composition/information on ingredients**
**3.1. Substances**
**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7783-35-9	Mercury(II) sulfate	100 %
	231-992-5	080-002-00-6
	Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H330 H300 H373 H400 H410	

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.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

**After inhalation**

Move to fresh air.

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Consult a physician. Show this safety data sheet to the doctor in attendance.

#### **After contact with skin**

Wash off immediately with plenty of water for at least 15 minutes.  
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 thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

#### **After ingestion**

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

#### **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. The product itself does not burn.

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

Fire may liberate hazardous vapours. The following may develop in event of fire: sulfur oxides, mercury vapors.

#### **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.

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

Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material and dispose of as hazardous waste.

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

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

### **SECTION 7: Handling and storage**

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

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

Use only in well-ventilated areas. Do not breathe vapours/dust.

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

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

Keep tightly closed in a dry, cool and well-ventilated place. Protect against light. Accessible only for authorized

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persons.

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 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.

Wash hands before breaks and after work.

##### **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: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0.40 mm, Breakthrough time: > 30 min

##### **Skin protection**

Remove and wash contaminated clothing before re-use.

##### **Respiratory protection**

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

##### **Environmental exposure controls**

Do not flush into surface water or sanitary sewer system.

### SECTION 9: Physical and chemical properties

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

Physical state:	solid
Colour:	white
Odour:	odourless
pH-Value (at 20 °C):	< 1

##### **Changes in the physical state**

Melting point:	not applicable
Initial boiling point and boiling range:	not applicable
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available

##### **Flammability**

Solid:	not applicable
Gas:	not applicable

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**Explosive properties**

not applicable

Lower explosion limits:

not applicable

Upper explosion limits:

not applicable

Ignition temperature:

not applicable

**Auto-ignition temperature**

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

no data available

**Oxidizing properties**

no data available

Vapour pressure:

no data available

Vapour pressure:

no data available

Density (at 20 °C):

~ 6,47 g/cm<sup>3</sup>

Bulk density:

not applicable

Water solubility:

completely soluble

(at 20 °C)

**Solubility in other solvents**

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

**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**

Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat. Above 300 °C, hazardous fumes may be released.

**10.5. Incompatible materials**

Ammonia, Acids.

Reacts violently with water.

**10.6. Hazardous decomposition products**

Sulphur oxides, Mercurous oxide.

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Exothermic reaction with strong acids.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

- Fatal if swallowed.
- Fatal in contact with skin.
- Fatal if inhaled.
- LD50/oral/rat = 57 mg/kg
- LD50/oral/mouse = 25mg/kg
- LD50/dermal/rat = 625 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7783-35-9	Mercury(II) sulfate				
	oral	ATE 5 mg/kg			
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation aerosol	ATE 0,05 mg/l			

#### Irritation and corrosivity

- Causes skin irritation.
- Causes serious eye irritation.

#### Sensitising effects

- May cause an allergic skin reaction.

#### 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

- May cause damage to organs through prolonged or repeated exposure. (Mercury(II) sulfate)
- Symptoms of mercury poisoning are headache, weakness of memory, loss of appetite, nausea, shortness of breath and exhaustion.

#### Aspiration hazard

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

#### 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

- May cause long-term adverse effects in the aquatic environment.
- Do not flush into surface water or sanitary sewer system.
- Pimephales promelas (fathead minnow) LC50: 0,19mg/l/96h
- Leuciscus idus (Golden orfe) LC50: 0.05mg/l/48h (Hg(II)-Ionen)

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7783-35-9	Mercury(II) sulfate					
	Acute fish toxicity	LC50 0,19 mg/l	96 h			

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#### 12.2. Persistence and degradability

No data is available on the product itself.

#### 12.3. Bioaccumulative potential

no data available

#### 12.4. Mobility in soil

no data available

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

no data available

#### 12.6. Other adverse effects

Discharge into the environment must be avoided.

### 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

### SECTION 14: Transport information

#### Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 1645
<u>14.2. UN proper shipping name:</u>	MERCURY SULPHATE
<u>14.3. Transport hazard class(es):</u>	6.1
<u>14.4. Packing group:</u>	II
Hazard label:	6.1



Classification code:	T5
Limited quantity:	LQ18
Hazard No:	60

##### Other applicable information (land transport)

Transport Category:: 2

#### Inland waterways transport (ADN)

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

Not tested

#### Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 1645
<u>14.2. UN proper shipping name:</u>	MERCURY SULPHATE
<u>14.3. Transport hazard class(es):</u>	6.1
<u>14.4. Packing group:</u>	II

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Hazard label: 6.1  
  
 Marine pollutant: PP  
 Limited quantity: 500 g  
 EmS: F-A, S-A  
 Segregation group: heavy metals and their salts (including their organometallic compounds)

**Other applicable information (marine transport)**

: -

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

**14.1. UN number:** UN 1645  
**14.2. UN proper shipping name:** MERCURY SULPHATE  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
 Hazard label: 6.1



Limited quantity Passenger: 1 kg  
 IATA-packing instructions - Passenger: 613  
 IATA-max. quantity - Passenger: 25 kg  
 IATA-packing instructions - Cargo: 615  
 IATA-max. quantity - Cargo: 100 kg

**Other applicable information (air transport)**

Danger: Y613

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes



**14.6. Special precautions for user**

Use personal protective equipment.

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

not applicable

## 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). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.  
 Water contaminating class (D): 3 - highly water contaminating

**15.2. Chemical safety assessment**

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



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

Revision Date 04.12.2017

Safety datasheet sections which have been updated: 2, 11

Revision Date 27.04.2017

Safety datasheet sections which have been updated: 2, 9, 14

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

H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**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.