



# Safety data sheet without legal obligation

Revision date: 10.07.2017

Revision number 8

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## 1. Product and company identification

**Product description:** Mercury contained in manufactured articles

**Synonyms:** Metallic mercury; Colloidal mercury; Quick silver; Liquid silver

<b>Product name:</b>	<b>Catalogue No.:</b>	<b>Content</b>
Thermometer	<b>43200...</b> (ex 3200/...)	<b>8 g mercury</b>
Thermometer	<b>43205...</b> (ex 3205/...)	<b>8 g mercury</b>
Thermometer	<b>43206010</b> (ex 3206)	<b>8 g mercury</b>
Thermometer	<b>43210...</b> (ex 3210/...)	<b>8 g mercury</b>
Thermometer	<b>43225...</b> (ex 3225/...)	<b>8 g mercury</b>
Hydrometer with thermometer	<b>46126063</b> (ex 6126/100)	<b>1 g mercury</b>
Hydrometer with thermometer	<b>46266040</b> (ex 6266/40)	<b>1 g mercury</b>

**Recommended use of the substance / the article:** in the Laboratory

### Details of the supplier:

Glaswarenfabrik Karl Hecht GmbH & Co KG  
Stettener Str. 22 - 24  
97647 Sondheim v. d. Rhoen, Germany  
Phone +49 9779 808-0, Fax + 49 9779 808-88, Email [info@hecht-assistent.de](mailto:info@hecht-assistent.de)  
**Emergency phone number** +49 9779 808-0 available during office hours  
or Poison centre Munich +49 89 19 24-0

## 2. Hazards identification

**Product contains mercury. Hazardous only if broken**

### Classification as per regulation 1272/2008/EC

for mercury

Acute Tox. 3 H331 Toxic if inhaled.  
Repr. 1A H360D May damage fertility or the unborn child  
STOT wdh. 1 H372 Causes damage to organs through prolonged or repeated exposure

### Label elements as per regulation 1272/2008/EC

Hazardous substances: Mercury



GHS06



GHS08



GHS09

Signal word: Danger



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## Hazard statements

- H331 Toxic if inhaled.  
H360D May damage fertility or the unborn child  
H372 Causes damage to organs through prolonged or repeated exposure  
H410 Very toxic to aquatic life with long lasting effects

## Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P273 Avoid release into the environment.  
P308 +313 If exposed or concerned: Get medical advice/attention.  
P304 +340 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P501 Dispose of contents / container to special waste.

## Additional information

All chemicals are potentially dangerous. Therefore they are to be handled by trained personnel only with the necessary care.

## 3. Composition / information on ingredients

Article contains mercury. Hazardous only if broken

### Hazardous ingredients

Description: MERCURY  
CAS No. 7439-97-6  
EC No. 231-106-7 (EINECS)

## 4. First aid measures

- Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
- Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water.
- Notes to physician:** The concentration of mercury in whole blood is a reasonable measure of the body-burden of mercury and thus is used for monitoring purposes. Treat symptomatically and supportively. Persons with kidney disease, chronic respiratory disease, liver disease, or skin disease may be at increased risk from exposure to this substance.
- Antidote:** The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel. The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.



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## 5. Fire-fighting measures

**Suitable extinguishing media:** Substance is non-flammable. Use extinguishing media appropriate for surrounding fire. Use water spray, dry chemical, carbon dioxide or appropriate foam.

### Advices for fire fighting

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

Prevent mercury from entering surface water or groundwater.

NFPA rating: Health: 3; Flammability: 0; Instability: 0;

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear self-contained breathing apparatus and full protective clothing.

Clean up spill immediately. Collect and store using a suction pump with a capillary tube.

Calcium polysulfide with excess sulphur should be sprinkled into cracks or inaccessible sites.

Keep collected mercury in a tightly closed bottle for recovery or disposal.

**Environmental precautions:** Do not allow to enter sewerage system / aquatic environment / soil

### Methods and material for containment and cleaning up

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately,

observing precautions in the protective equipment section. Provide ventilation

Dispose material / waste properly. Please see section 13.

## 7. Handling and storage

### Precautions for safe handling

Handle instrument with care. In case of spilling: Do not get on skin or in eyes. Do not ingest or inhale.

Discard contaminated shoes. Do not breathe vapour.

Users must be familiar with the contents of this MSDS and instructed in the proper work procedure.

### General hygiene measures

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

Minimize dust generation. Do not eat, drink or smoke in the working area.

### Conditions for safe storage including any incompatibilities

Store away from incompatible substances. Keep away from metals. Store protected from azides.

**Storage category:** 6.1 B

## 8. Exposure controls / Personal protection

### Control parameters

MERCURY; CAS No. 7439-97-6

Threshold limit value (TLV/TWA)

0,025 mg/m<sup>3</sup>; Skin (ACGIH)

0,050 mg/m<sup>3</sup> TWA (vapour) 10 mg/m<sup>3</sup> IDLH (NIOSH)



## 8. Exposure controls / Personal protection

### Exposure limits

OSHA - Final PELs 0,1 mg/m<sup>3</sup> Ceiling  
OSHA Vacated PELs 0,05 mg/m<sup>3</sup> TWA (vapour)

### Exposure controls

Provide adequate ventilation and easy access to water supply. Minimize the risk of inhalation of vapours.

### Personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**Respiratory protection:** Respirator required when vapours are generated and exposure limits are exceeded or if irritation or other symptoms are experienced.

**Skin protection:** Wear protective gloves / clothing to prevent skin exposure

**Eye protection:** Wear safety glasses / face shield

## 9. Physical and chemical properties

### Physical state

Form:	heavy, mobile liquid metal
Colour:	silver-white
Odour:	odourless
Vapour pressure	0,0002 mmHg at 25°C
Relative vapour density	6,93 (air = 1)
Density	13,534 g·cm <sup>-3</sup>
Solubility in water	less than 0,1 %
pH value	not available
Melting point	-39 °C (-38 °F)
Boiling point	357 °C (675 °F)
Critical temperature	1462 °C (2664 °F)
Viscosity	15,5 mP at 25 °C
Formula	HG

## 10. Stability und reactivity

**Stability:** Stable

**Conditions to avoid:** Heat. Emits toxic vapours, especially when heated.

### Incompatible materials

Metals, aluminium, ammonia, chlorates, copper, copper alloys, ethylene oxide, halogens, iron, nitrates, sulphur, sulphuric acid, oxygen, acetylene, lithium, rubidium, sodium carbide, lead, nitromethane, peroxyformic acid, calcium, chlorine dioxide, metal oxides, azides, 3-bromopropyne, methylsilane + oxygen, tetracarbonylnickel + oxygen, boron diiodophosphide

**Hazardous polymerisation:** Will not occur.



## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity:

Lethal dose (LD50) / Lethal concentration (LC50): RTECS: Not available.

Carcinogenicity: Mercury - IARC: Group 3 (not classifiable)

Other: See actual entry in RTECS for complete information.

#### After absorption of toxic quantities

Inhalation of vapours may cause coughing, chest pains, nausea and vomiting.

Chronic effects of overexposure may include kidney and/or liver damage.

Chronic effects of overexposure may include central nervous system depression.

Chronic effects of mercury poisoning include a build-up of the metal in the brain, liver and kidneys.

Symptoms include headache, tremors, loose teeth, loss of appetite, blisters on the skin and impaired memory.

#### Target organs

Eyes, skin, respiratory system, central nervous system, kidneys

#### Routes of entry

Inhalation, absorption, eye contact, skin contact

## 12. Ecological information

#### Toxicity:

Fish: Rainbow trout: LC50 = 0,16-0,90 mg/L; 96 Hr; Unspecified

Fish: Bluegill/Sunfish: LC50 = 0,16-0,90 mg/L; 96 Hr; Unspecified

Fish: Channel catfish: LC50 = 0,35 mg/L; 96 Hr; Unspecified

Water flea daphnia: EC 50 = 0,01 mg/L; 48 Hr; Unspecified

#### Persistence and degradability:

#### Bioaccumulative potential:

**Other adverse effects:** Do not allow to enter inshore waters, waste water, groundwater or soil.

**Other:** Harmful to aquatic life in very low concentrations.

## 13. Disposal considerations

### Waste treatment methods / Recommendation

The disposal of chemical residues which are hazardous waste is regulated in the EC member countries by corresponding laws and regulations. We recommend you to contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

### Packaging

#### Contaminated packaging

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the hazardous substance itself.



## 14. Transport information

<b>Land transport</b>	ADR
UN number	UN 3506
Proper shipping name	Mercury contained in manufactured articles
Class	8
Classification code	Code CT3
Label	8 (corrosive)
Packing group	cancelled
Special provisions	366
<b>Sea transport</b>	IMDG
UN number	UN 3506
Proper shipping name	MERCURY CONTAINED IN MANUFACTURED ARTICLES
Class	8
Label	8 (corrosive)
EmS:	F-A, S-B
Packing group	cancelled
Packing instructions	P003, PP90
Special provisions	366
<b>Air transport</b>	ICAO, IATA
UN number	UN 3506
<b>No data available!</b>	

## 15. Regulatory information

### Safety, health and environmental regulations / legislation specific for the substance

#### EU Regulations

##### EINECS

This product is on the European Inventory of Existing Commercial Chemical Substances.

#### Other Classifications

**HMIS** (USA): Health hazard: 3; Fire hazard: 0; Reactivity: 0

**National Fire Protection Association - NFPA** (USA): Health: 3; Flammability: 0; Instability: 0;

**WGK** (Water Danger/Protection): 3

Changes compared with the last revision: New product numbers

#### Literature and data sources

Regulations REACH 1907/2006/EC

CLP 1272/2008/EC

**The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. They do not assure of the properties of the product.**