

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**Mercury(II) chloride for analysis, ACS, Reag. Ph. Eur.**

Revision: 13.11.2024

Product code: 23667

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

Mercury(II) chloride for analysis, ACS, Reag. Ph. Eur.

CAS No: 7487-94-7  
Index No: 080-010-00-X  
EC No: 231-299-8

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

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

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

Company name: AnalytiChem GmbH  
ACD  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0 Telefax: 0203/5194-290  
E-mail: info@analytichem.de  
Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117  
E-mail: produktsicherheit@analytichem.de  
Internet: www.analytichem.de  
Responsible Department: Abteilung Produktsicherheit

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Muta. 2; H341  
Repr. 2; H361f  
Acute Tox. 2; H300  
Skin Corr. 1B; H314  
STOT RE 1; H372  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008**

Signal word: Danger

according to Regulation (EC) No 1907/2006

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**Pictograms:****Hazard statements**

H300	Fatal if swallowed.
H314	Causes severe skin burns and eye damage.
H341	Suspected of causing genetic defects.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs (kidneys) through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308	IF exposed or concerned:
P310	Immediately call a POISON CENTER/doctor.

**Special labelling of certain mixtures**

Restricted to professional users.

**2.3. Other hazards**

No data available

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

Sum formula:	HgCl <sub>2</sub>
Molecular weight:	271,5 g/mol

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7487-94-7	mercury dichloride			100 %
	231-299-8	080-010-00-X		
	Muta. 2, Repr. 2, Acute Tox. 2, Skin Corr. 1B, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H341 H361f H300 H314 H372 H400 H410			

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		
7487-94-7	231-299-8	mercury dichloride	100 %
	oral: ATE = 5 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

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

Self-protection of the first aider

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**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.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Water, to which activated charcoal may be added

Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

corrosive, Irritant

Cough, Dyspnoea

Risk of serious damage to eyes., Vomiting

Gastrointestinal complaints, Abdominal pain

Blood pressure drop, Circulatory collapse

For Hg compounds applies: they act in a cytotoxic and protoplasmatoxic. Symptoms of poisoning: Eye contact leads to severe lesions. Ingestion and inhalation of dusts (acute): Diarrhea metallic taste, nausea, vomiting, abdominal pain, bloody diarrhea, intestinal burns, glottal edema, aspiration pneumonia, reduction in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure (chronic): Mouth inflammation with loss of teeth and mercurial line. Speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium

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

No data available

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

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

**Unsuitable extinguishing media**

no restriction

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

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated:

Hydrogen chloride (HCl), mercury and its compounds

**5.3. Advice for firefighters**

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Do not inhale explosion and combustion gases.  
Avoid contact with skin, eyes and clothes.  
In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Avoid dust formation. Do not breathe dust.

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Take up carefully when dry. Take up dust-free and set down dust-free.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**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**

Avoid exposure - obtain special instructions before use.  
Read label before use. Handle and open container with care.  
Avoid dust formation. Do not breathe dust.  
When using do not eat, drink, smoke, sniff. Keep container tightly closed.  
Use personal protection equipment. Use extractor hood (laboratory).

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Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities

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**

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

Store in a place accessible by authorized persons only.

Protect against: Light

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Store in a dry place.

storage temperature +5°C - +30°C

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

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Avoid dust formation. Do not breathe dust.

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

goggles

Wear eye protection/face protection.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Thickness of the glove material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

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Thickness of the glove material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): &gt; 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet <(>, <)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: dust formation

Filtering device with filter or ventilator filtering device of type: Hg-P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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

Physical state:	solid
Colour:	white
Odour:	odourless
Odour threshold:	No data available
Melting point/freezing point:	280,7 °C
Boiling point or initial boiling point and boiling range:	302 °C
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	3,2 (15 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 20 °C)	74 g/l
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure: (at 100 °C)	0,1 hPa
Vapour pressure:	No data available
Density (at 20 °C):	5,44 g/cm <sup>3</sup>

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Relative density:	No data available
Bulk density:	~2000 kg/m <sup>3</sup>
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information****Information with regard to physical hazard classes**

## Explosive properties

No data available

## Sustained combustibility:

No data available

## Self-ignition temperature

Solid:

No data available

Gas:

No data available

## Oxidizing properties

No data available

**Other safety characteristics**

## Evaporation rate:

No data available

## Solvent separation test:

No data available

## Solvent content:

No data available

## Solid content:

100%

## Sublimation point:

No data available

## Softening point:

No data available

## Pour point:

No data available

No data available:

## Viscosity / dynamic:

No data available

## Flow time:

No data available

**Further Information**

No data available

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

No data available

**10.2. Chemical stability**

Protect against: Light

**10.3. Possibility of hazardous reactions**

Danger of explosion:

Fluorine, Alkali metals, Hydrazine

Exothermic reaction with:

Strong alkali, Oxidising agent, strong

**10.4. Conditions to avoid**

Light

**10.5. Incompatible materials**

Metal

Copper, Light metal

silver, Zinc

tin

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

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## Further information

No data available

## SECTION 11: Toxicological information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Fatal if swallowed.

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

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Inhalation effect: Damage to the respiratory tract.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7487-94-7	mercury dichloride				
	oral	ATE 5 mg/kg			

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

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

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

Suspected of causing genetic defects. (mercury dichloride)

Suspected of damaging fertility. (mercury dichloride)

Carcinogenicity: 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**

Causes damage to organs through prolonged or repeated exposure. (mercury dichloride)

**Aspiration hazard**

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

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

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

No data available

**Other information**

No data available

**Further information**

corrosive, Irritant



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Cough, Dyspnoea

Risk of serious damage to eyes., Vomiting

Gastrointestinal complaints, Abdominal pain

Blood pressure drop, Circulatory collapse

For Hg compounds applies: they act in a cytotoxic and protoplasmatoxic. Symptoms of poisoning: Eye contact leads to severe lesions. Ingestion and inhalation of dusts (acute): Diarrhea metallic taste, nausea, vomiting, abdominal pain, bloody diarrhea, intestinal burns, glottal edema, aspiration pneumonia, reduction in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure (chronic): Mouth inflammation with loss of teeth and mercurial line. Speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium

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

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

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

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

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

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

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not allow to enter into surface water or drains.

Do not mix with other wastes.

Send to a physico-chemical treatment facility under observation of official regulations.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

UN 1624

**14.2. UN proper shipping name:**

MERCURIC CHLORIDE

**14.3. Transport hazard class(es):**

6.1

**14.4. Packing group:**

II

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Hazard label: 6.1  
Classification code: T5  
Limited quantity: 500 g  
Excepted quantity: E4  
Transport category: 2  
Hazard No: 60  
Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1624  
**14.2. UN proper shipping name:** MERCURIC CHLORIDE  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
Hazard label: 6.1  
Classification code: T5  
Special Provisions: 802  
Limited quantity: 500 g  
Excepted quantity: E4

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1624  
**14.2. UN proper shipping name:** MERCURIC CHLORIDE  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
Hazard label: 6.1  
Marine pollutant: P  
Special Provisions: -  
Limited quantity: 500 g  
Excepted quantity: E4  
EmS: F-A, S-A

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

**14.1. UN number or ID number:** UN 1624  
**14.2. UN proper shipping name:** MERCURIC CHLORIDE  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
Hazard label: 6.1  
Limited quantity Passenger: 1 kg  
Passenger LQ: Y644  
Excepted quantity: E4  
IATA-packing instructions - Passenger: 669  
IATA-max. quantity - Passenger: 25 kg  
IATA-packing instructions - Cargo: 676  
IATA-max. quantity - Cargo: 100 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes  
Danger releasing substance: mercury dichloride

**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 18, Entry 75

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Information according to Directive  
2012/18/EU (SEVESO III):

H2 ACUTE TOXIC

Additional information:

E1

**Additional information**

SVHC substance.

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles 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. Observe employment restrictions for women of child-bearing age.

Water hazard class (D):

3 - highly hazardous to water

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

This data sheet contains changes from the previous version in section(s): 6,9,11,12.

**Abbreviations and acronyms**

Acute Tox. 2: Acute toxicity, hazard category 2

Skin Corr. 1B: Skin corrosion, sub-category 1B

Eye Dam. 1: Serious eye damage, hazard category 1

Muta. 2: Germ cell mutagenicity, hazard category 2

Repr. 2: Reproductive toxicity, hazard category 2

STOT RE 1: Specific target organ toxicity - repeated exposure, hazard category 1

Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1

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

H300 Fatal if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H361f Suspected of damaging fertility.

H372 Causes damage to organs (kidneys) through prolonged or repeated exposure.

H372 Causes 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 above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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.

Provide appropriate information, instructions and training to users