

1 Identification of the substance/preparation and of the company/undertaking**· Product details****· Trade name:** Silver**· Article number:** 87870030**· Application of the substance / the preparation**

Intermediate

Preparation of catalysts

Precious metal alloy for technical purposes

Coating

· Manufacturer/Supplier:

W.C. Heraeus GmbH

Chemicals Division - Chemical Products

Heraeusstr. 12-14, D-63450 Hanau

Deutschland/ Germany

· Further information obtainable from: Dr. Marcus Hannakam Tel: +49-(0)6181-353240**· Information in case of emergency:**

factory security offices: +49 - (0)6181 - 35213

christian.mock@heraeus.com

2 Hazards identification**· Hazard description:** Not applicable.**· Information concerning particular hazards for human and environment:** Not applicable.**3 Composition/information on ingredients****· Chemical characterization:****· CAS No. Description**

7440-22-4 silver

· Identification number(s)**· EINECS Number:** 231-131-3**4 First aid measures****· General information:** In case of accident or if you feel unwell, seek medical advice immediately.**· After inhalation:** Supply fresh air.**· After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.**· After swallowing:**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

5 Fire-fighting measures**· Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**· Protective equipment:** Wear self-contained respiratory protective device.**6 Accidental release measures****· Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.**· Measures for environmental protection:** No special measures required.

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- **Measures for cleaning/collecting:**
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Wear protective equipment. Keep unprotected persons away.
- **Information about fire - and explosion protection:** The product is not combustible.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

7440-22-4 silver

WEL Long-term value: 0.1 mg/m³

- **Additional information:** The lists valid during the making were used as basis.

- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:**
Use respiratory protective device against the effects of dust/aerosol.
Filter P3
- **Protection of hands:**
- **Material of gloves:** Nitrile rubber, NBR
- **Eye protection:**
Necessarily if material in form of dust is present.



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form: Solid in various forms
Colour: Silver grey
Odour: Odourless

- **Change in condition**

Melting point/Melting range: 961.3°C
Boiling point/Boiling range: 2180°C

- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C:** 10.5 g/cm³

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| · Solubility in / Miscibility with water: | <i>Insoluble.</i> |
| · Organic solvents: | <i>0.0 %</i> |
| · Solids content: | <i>100.0 %</i> |

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Dangerous reactions** *No dangerous reactions known.*
- **Dangerous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

7440-22-4 silver

Oral	LD50	>10000 mg/kg (mouse)
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- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** *No data available.*
- **General notes:** *Generally not hazardous for water*

13 Disposal considerations

- **Product:**
- **Recommendation**
Product or residue of product should be recycled because of precious metal content (national regulations must be observed). Material can be returned to supplier or other recycling companies.
If residues of products are classified as waste from administrative bodies or recycling of precious metal is not intended use the legal requirements to assign the European Waste Code (depending on branche of industry and industrial process).
- **Uncleaned packaging:**
- **Recommendation:**
Uncleaned or with product residues contaminated packing should be treated like the product itself.
Packages, which do not contain product residues, should be recycled; if there does not exist a collecting system, packages can be treated as rubbish.

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14 Transport information

- Land transport ADR/RID (cross-border)
- ADR/RID class: -

- Maritime transport IMDG:
- IMDG Class: -
- Marine pollutant: No

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -

15 Regulatory information

- Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The substance is not subject to classification according to EU lists and other sources of literature known to us.

- Special labelling of certain preparations:

Safety data sheet available for professional user on request.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: HH-SUS