

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:**
Glanzgoldplattierbad 750 FeIn (4g Au/l), Glanzgoldplattierbad SI (4g Au/l)
Aurosteel Glanzgoldplattierbad
WILAPLAT gold plating bath 750 FeIn (4g Au/l), WILAPLAT gold plating bath 750 SI (4g Au/l),
Aurosteel Gold plating bath
- **Article number:** 3080100902, 3080100702, 3170100202
- **Relevant identified uses of the substance or mixture and uses advised against**
 No further relevant information available.
- **Application of the substance / the preparation** Galvanic bath
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Wieland Edelmetalle GmbH
 Schwenninger Str. 13
 75179 Pforzheim
 Telefon +49 (07231)-1393-0, Telefax +49 (07231)-1393-100
- **Further information obtainable from:**
 Wieland Edelmetalle GmbH
 www.wieland-edelmetalle.de
 msds@wieland-edelmetalle.de
- **Emergency telephone number:**
 GIZ-Nord, Göttingen, Germany
 +49 551 19240
 Member of EPECS Network

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

- | | |
|-------------------|---|
| Acute Tox. 4 | H302 Harmful if swallowed. |
| Acute Tox. 4 | H312 Harmful in contact with skin. |
| Acute Tox. 4 | H332 Harmful if inhaled. |
| | |
| Aquatic Chronic 3 | H412 Harmful to aquatic life with long lasting effects. |

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

- | | |
|------------|---|
| R20/21/22: | Harmful by inhalation, in contact with skin and if swallowed. |
| R52/53: | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

- **Information concerning particular hazards for human and environment:**
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
 The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product is classified and labelled according to the CLP regulation.

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· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labelling:

potassium dicyanoaurate

· Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P322 Specific measures (see on this label).

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Other hazards

· Results of PBT and vPvB assessment

 · **PBT:** Not applicable.

 · **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

 · **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 77-92-9 EINECS: 201-069-1	citric acid ☒ Xi R36 ⚠ Eye Irrit. 2, H319	3-<10%
CAS: 13967-50-5 EINECS: 237-748-4	potassium dicyanoaurate ☠ T+ R26/27/28; ☒ Xi R38-41; ☠ N R50/53 R32 ☠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; ☠ Met. Corr.1, H290; Eye Dam. 1, H318; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315	0.3-<1%

 · **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· Description of first aid measures

 · **General information:** Immediately remove any clothing soiled by the product.

 · **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· 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. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

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Seek immediate medical advice.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

* 5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **Special hazards arising from the substance or mixture** Hydrogen cyanide (HCN)

· **Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections** See Section 13 for disposal information.

* 7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· **Information about fire - and explosion protection:** Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:**

Storage class 10 - 13 (Other liquids and solids)

Only substances of the same storage class should be stored together.

Collocated storage with the following substances is prohibited:

- Pharmaceuticals, foods, and animal feeds including additives.

- Infectious, radioactive und explosive substances.

- Strongly oxidizing substances of storage class 5.1A.

Under certain conditions the collocated storage with the following sub-stances is permitted (For more details see TRGS 510):

- Gases.

- Flammable liquids of storage class 3.

- Other explosive substances of storage class 4.1A.

- Spontaneously flammable substances.

- Substances liberating flammable gases in contact with water.

- Oxidizing substances of storage class 5.1B.

- Ammonium nitrate and preparations containing ammonium nitrate.

- Organic peroxides and self reactive substances.

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- Combustible and non combustible acutely toxic substances of storage classes 6.1A and 6.1B.
The substance should not be stored with substances with which hazardous chemical reactions are possible.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class:** 12
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

13967-50-5 potassium dicyanoaurate

Oral	DNEL(Com.)longterm	0.05 mg/kg (-) (CN)
	DNEL(Comm.)akut	4.5 mg/kg (-) (CN)
	DNEL(Indust.)longt.	0.05 mg/kg (-) (CN)
	DNEL(Industrie) akut	4.5 mg/kg (-) (CN)

· PNECs

13967-50-5 potassium dicyanoaurate

PNEC (Commercial)	0.03 µg/l (H ₂ O) (CN)
PNEC (Industrie)	0.03 µg/l (H ₂ O) (CN)

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

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

· Respiratory protection:

- Use suitable respiratory protective device in case of insufficient ventilation.
- Short term filter device:
Filter B

· Protection of hands:



Protective gloves

· Material of gloves

- Chloroprene rubber, CR
- Butyl rubber, BR
- Fluorocarbon rubber (Viton)
- Nitrile rubber, NBR

· Penetration time of glove material

- The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- Value for the permeation: Level ≤ 6

· Not suitable are gloves made of the following materials:

- Strong material gloves

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- Leather gloves
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· Form:	Fluid
· Colour:	Different according to colouring
· Odour:	Characteristic

- **pH-value at 20 °C:** 3.8

- **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	ca. 100 °C

- **Flash point:** Not applicable.

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

- **Oxidizing properties:** None

- **Vapour pressure:** Not determined.

- **Density at 20 °C:** 1.08 g/cm³

- **Solubility in / Miscibility with water:**

Fully miscible.

- **Solvent content:**

· Organic solvents:	0.0 %
· Water:	> 80% %

- **Other information:** No further relevant information available.

10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Possibility of hazardous reactions:** Develops toxic gases/fumes.

- **Conditions to avoid:** No further relevant information available.

- **Incompatible materials:** No further relevant information available.

- **Hazardous decomposition products:** Hydrogen cyanide (prussic acid)

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

13967-50-5 potassium dicyanoaurate

Oral	LD50	29 mg/kg (rat)
Dermal	LD50	100 mg/kg (human) (CN)
Inhalative	LC50	524 mg/kg (10min) (human) (HCN)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful

12 Ecological information

- **Toxicity**

· **Aquatic toxicity:**

13967-50-5 potassium dicyanoaurate

EC50	0.041 mg/l (48h) (Daphnia magna (water flea)) (CN)
	1.8 mg/l (72h) (Eutosiphon sulcatum) (CN)
IC50	0.03 mg/l (8d) (Sc.quadricauda) (CN)
LC50	0.12 mg/l (96h) (Pimephales promelas (fathead minnow)) (CN)
	0.083 mg/l (96h) (Lepomis macrochirus (bluegrill)) (CN)
	0.057 mg/l (96h) (Onchorhynchus mykiss (rainbow trout)) (CN)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Harmful to aquatic organisms
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Contact manufacturer for recycling information.
Must be specially treated adhering to official regulations.

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- **Uncleaned packaging:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|--|--|
| · UN-Number
· ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name
· ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es)
· ADR, ADN, IMDG, IATA
· Class | Void |
| · Packing group
· ADR, IMDG, IATA | Void |
| · Environmental hazards:
· Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Relevant phrases**
- H290 May be corrosive to metals.
- H300 Fatal if swallowed.
- H310 Fatal in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

R32 Contact with acids liberates very toxic gas.

R36 Irritating to eyes.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Contact:** Herr Marcus Müller

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**

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