

Printing date 13.11.2018

Version number 3

Revision: 20.03.2018

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

• Trade name: <u>Glanzgoldplattierbad 750 SC (4g Au/l)</u>, <u>Glanzgoldplattierbad SCI (4g Au/l)</u> <u>WILAPLAT gold plating bath 750 SC (4g Au/l)</u>, <u>WILAPLAT gold plating bath 750 SCI</u> (4g Au/l)

- · Article number: 3080100602, 3080100802
- $\cdot$  1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- $\cdot$  Application of the substance / the mixture <code>Galvanic</code> bath
- · 1.3 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 • 1.4 Emergency telephone number:
- Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

# **SECTION 2: Hazards identification**

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

G

GHS08 health hazard

Carc. 1B	H350i	May cause cancer by inhalation.
Repr. 1B	H360F	May damage fertility.

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H312	Harmful in contact with skin.
Acute Tox. 4	H332	Harmful if inhaled.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



· Signal word Danger

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Au/l)

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· Hazard-determining components of labelling:				
potassium dicya	potassium dicyanoaurate			
cobalt sulphate				
• Hazard statem	ients			
H302+H312+H	1332 Harmful if swallowed, in contact with skin or if inhaled.			
H350i	May cause cancer by inhalation.			
H360F	May damage fertility.			
H411	Toxic to aquatic life with long lasting effects.			
· Precautionary	statements			
P261 Av	oid breathing dust/fume/gas/mist/vapours/spray.			
P280 We	ear protective gloves/protective clothing/eye protection/face protection.			
P301+P312 IF	P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.			
P304+P340 IF	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.			
P405 Sto	pre locked up.			
P501 Dis	P501 Dispose of contents/container in accordance with local/regional/national/international regulations.			
· Additional info	· Additional information:			
EUH208 Contains cobalt sulphate, potassium dicyanoaurate. May produce an allergic reaction.				
2.3 Other hazards				
· Results of PBT	· Results of PBT and vPvB assessment			
• <b>PBT:</b> Not appli	· <b>PBT:</b> Not applicable.			
• <b>vPvB:</b> Not applicable.				

## **SECTION 3: Composition/information on ingredients**

#### · 3.2 Chemical characterisation: Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 77-92-9	citric acid 5-10		
EINECS: 201-069-1	♦ Eye Irrit. 2, H319		
CAS: 10124-43-3 EINECS: 233-334-2	cobalt sulphate Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350i; Repr. 1B, H360F; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10);	≤1%	
	Acute Tox. 4, H302; Skin Sens. 1, H317		
CAS: 13967-50-5 EINECS: 237-748-4	potassium dicyanoaurate Acute Tox. 2, H300; Acute Tox. 2, H330; Acute Tox. 1, H290; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤ 1%	
· SVHC			

# 10124-43-3 cobalt sulphate

• Additional information: For the wording of the listed hazard phrases refer to section 16.

#### **SECTION 4: First aid measures**

#### · 4.1 Description of first aid measures

#### · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### • After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

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Au/l)

(Contd. of page 2)

- After skin contact: If skin irritation continues, consult a doctor.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing:
- Rinse out mouth and then drink plenty of water.
- Call a doctor immediately.
- Call for a doctor immediately.
- · 4.2 Most important symptoms and effects, both acute and delayed
- No further relevant information available.
- $\cdot$  4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

#### **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture Hydrogen cyanide (HCN)
- 5.3 Advice for firefighters
- · Protective equipment:
- Wear self-contained respiratory protective device.

Mount respiratory protective device.

## **SECTION 6: Accidental release measures**

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions:

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

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

· 6.3 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.
- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

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

#### ·7.2 Conditions for safe storage, including any incompatibilities

· Storage:

• Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Store under lock and key and with access restricted to technical experts or their assistants only. Keep receptacle tightly sealed.

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Au/l)

(Contd. of page 3)

· Storage class: 6.1D

• 7.3 Specific end use(s) No further relevant information available.

# **SECTION 8: Exposure controls/personal protection**

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

#### · 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

## 10124-43-3 cobalt sulphate

WEL Long-term value: 0.1 mg/m<sup>3</sup>

Carc, Sen

#### · DNELs

## 13967-50-5 potassium dicyanoaurate

OralDNEL(Comm.)akut4.5 mg/kg (-) (CN)DNEL(Com.)longterm0.05 mg/kg (-) (CN)DNEL(Industrie) akut4.5 mg/kg (-) (CN)DNEL(Indust.)longt.0.05 mg/kg (-) (CN)

## · PNECs

## 13967-50-5 potassium dicyanoaurate

PNEC (Industrie) 0.03 µg/l (H2O) (CN)

PNEC (Commercial) 0.03 µg/l (H2O) (CN)

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

#### · 8.2 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.

Store protective clothing separately.

Avoid contact with the eyes and skin.

## · Respiratory protection:

## Filter B

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

#### Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation **Material of gloves** 

Chloroprene rubber, CR

Butyl rubber, BR Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the



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Au/l)

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application.

#### $\cdot$ 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  $\leq 6$ 

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Not suitable are gloves made of the following materials: Strong material gloves

Leather gloves

- · Eye protection: Goggles recommended during refilling
- Body protection: Protective work clothing

# **SECTION 9: Physical and chemical properties**

· Appearance:FluidForm:FluidColour:Pink· Odour:Characteristic· Odour threshold:Not determined.· pH-value at 20 °C:3.8· Charage in conditionUndetermined.· Melting point/freezing point:Undetermined.· Initial boiling point and boiling range:100 °C· Flash point:Not applicable.· Flash point:Not applicable.· Ignition temperature:1010 °C· Secomposition temperature:Not determined.· Auto-ignition temperature:Not determined.· Lower:Product is not selfigniting.· Explosion limits:Vot determined.· Lower:Not determined.· Oxidising propertiesNot determined.· Oxidising propertiesNot determined.· Oxidising propertiesNot determined.· Oxidising properties23 hPa· Density at 20 °C:23 hPa· Density at 20 °C:23 hPa· Solubility in / Miscibility with water:Fully miscible.· Partition coefficient: n-octanol/waterFully miscible.· Partition coefficient: n-octanol/waterNot determined.· Viscosity: Dynamic:Not determined.· Dynamic:Not determined.	• 9.1 Information on basic physical and c	hemical properties	
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		Not determined.	
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Au/l)

(Contd. of page 5)

Kinematic:	Not determined.	(conta: or page 3)
· Solvent content:		
Organic solvents:	0.0 %	
Water:	84.5 %	
• 9.2 Other information	No further relevant information available.	

## **SECTION 10: Stability and reactivity**

• 10.1 Reactivity No further relevant information available.

10.2 Chemical stability

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

• 10.3 Possibility of hazardous reactions Develops toxic gases/fumes.

• 10.4 Conditions to avoid No further relevant information available.

- $\cdot$  10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: Hydrogen cyanide (prussic acid)

## **SECTION 11: Toxicological information**

#### · 11.1 Information on toxicological effects

· Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

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

#### ATE (Acute Toxicity Estimates)

		5,370 mg/kg (rat)
Inhalative	LC50/4 h	92.6 mg/l

#### 10124-43-3 cobalt sulphate

Oral LD50 582 mg/kg (rat)

#### 13967-50-5 potassium dicyanoaurate

	LD50	29 mg/kg (rat)
Dermal	LD50	100 mg/kg (human) (CN)
Inhalative	LC50/4 h	100 mg/kg (human) (CN) 0.5 mg/l (ATE)
	LC50	524 mg/kg (10min) (human) (HCN)

Primary irritant effect:

• Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation Based on available data, the classification criteria are not met.

· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

• Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity

May cause cancer by inhalation.

· Reproductive toxicity

May damage fertility.

 $\cdot$  STOT-single exposure Based on available data, the classification criteria are not met.

 $\cdot$  STOT-repeated exposure Based on available data, the classification criteria are not met.

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

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## SECTION 12: Ecological information

· 12.1 Toxicity

#### · Aquatic toxicity:

#### 13967-50-5 potassium dicyanoaurate

LC50 0.083 mg/l (96h) (Lepomis macrochirus (bluegrill)) (CN)

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

• 12.2 Persistence and degradability No further relevant information available.

- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- $\cdot$  Additional ecological information:
- · General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· 12.5 Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• 12.6 Other adverse effects No further relevant information available.

## **SECTION 13: Disposal considerations**

#### · 13.1 Waste treatment methods

#### · Recommendation

Contact manufacturer for recycling information.

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · 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.

# **SECTION 14: Transport information**

· 14.1 UN-Number · ADR, IMDG, IATA

UN3082

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GB –



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	(Contd. of page
14.2 UN proper shipping name ADR	3082 ENVIRONMENTALLY HAZARDOU
	SUBSTANCE, LIQUID, N.O.S. (potassiun
	dicyanoaurate, nickel carbonate)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE
	LIQUID, N.O.S. (potassium dicyanoaurate, nicke
	carbonate), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE
	LIQUID, N.O.S. (potassium dicyanoaurate, nicko carbonate)
14.3 Transport hazard class(es)	
ADR	
Class Label	9 (M6) Miscellaneous dangerous substances and articles.
IMDG, IATA	· · · · · · · · · · · · · · · · · · ·
Class Label	<ul><li>9 Miscellaneous dangerous substances and articles.</li><li>9</li></ul>
14.4 Packing group	
ADR, IMDĞ, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances an
	articles.
Danger code (Kemler): Stowage Category	90 A
Stowage Category 14.7 Transport in bulk according to Anne:	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum pat quantity par inpar packaging: 20 ml
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
	maximum net quantity per outer packaging. 1000 III
Transnort category	3
Transport category Tunnel restriction code	3 E



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· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (potassium dicyanoaurate, nickel carbonate), 9, III

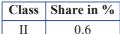
## **SECTION 15: Regulatory information**

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I None of the ingredients is listed.

- · Seveso category E2 Hazardous to the Aquatic Environment
- $\cdot$  Qualifying quantity (tonnes) for the application of lower-tier requirements  $200\ t$
- $\cdot$  Qualifying quantity (tonnes) for the application of upper-tier requirements  $500\ t$
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 28, 30
- · National regulations:
- Technical instructions (air):



· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

#### · Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

10124-43-3 cobalt sulphate

• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **SECTION 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.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341 Suspected of causing genetic defects.
- H350i May cause cancer by inhalation.
- H360F May damage fertility.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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· 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 Organisation ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (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 Harmonised 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 PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 2: Acute toxicity - Category 2 Acute Tox. 4: Acute toxicity - Category 4 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Resp. Sens. 1: Respiratory sensitisation - Category 1 Skin Sens. 1: Skin sensitisation - Category 1 Muta. 2: Germ cell mutagenicity - Category 2 Carc. 1B: Carcinogenicity - Category 1B Repr. 1B: Reproductive toxicity - Category 1B Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 \* \* Data compared to the previous version altered.