

Trade name: Gold Plating Bath JE250 - 3 g/L Au

Version: Draft /

Date revised

Substance number: 7251.0000

Replaces Version: 1 / WORLD

Print date: 18.06.2025

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

### **1.1. Product identifier**

Gold Plating Bath JE250 - 3 g/L Au

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

#### **Use of the substance/preparation**

Galvanic Bath, do not use for private purposes, Food, beverages and animal feed.

#### **Identified Uses**

PC14

Metal surface treatment products, including galvanic and electroplating products

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

#### **Address/Manufacturer**

Jentner Plating Technology GmbH

Johann-Staib-Straße 2

75179 Pforzheim

Telephone no. +49 (0)7231/4180940

Information provided by / telephone Laboratory department; Opening hours 8:00-16:00

E-mail address of person responsible sales@jentner.de

for this SDS

### **1.4. Emergency telephone number**

Poisoning Information Center Freiburg: +49(0)761/19240

## **SECTION 2: Hazards identification \*\*\***

### **2.1. Classification of the substance or mixture**

#### **Classification (Regulation (EC) No. 1272/2008)**

Classification (Regulation (EC) No. 1272/2008)

Skin Corr. 1B H314

Eye Dam. 1 H318

Carc. 1B H350i

Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

#### **Hazard pictograms**



#### **Signal word**

Danger

#### **Hazard statements \*\*\***

H314

Causes severe skin burns and eye damage.

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H350i May cause cancer by inhalation.  
H412 Harmful 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.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor.  
P501.1 Dispose of contents/container to industrial incineration plant.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains potassium hydroxide; Cobalt sulphate, heptahydrate  
EUH208 Contains Cobalt sulphate, heptahydrate, Potassium gold-I-cyanid (68,2% Au), May produce an allergic reaction.

**Supplemental information****Further supplemental information**

Restricted to professional users

**2.3. Other hazards**

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**SECTION 3: Composition/information on ingredients****Hazardous ingredients****Citric acid, monohydrate**

CAS No. 5949-29-1  
EINECS no. 201-069-1  
Registration no. 01-2119457026-42  
Concentration  $\geq 1$  < 10 %  
Classification (Regulation (EC) No. 1272/2008)  
Eye Irrit. 2 H319  
STOT SE 3 H335

**potassium hydroxide**

CAS No. 1310-58-3  
EINECS no. 215-181-3  
Registration no. 01-2119487136-33  
Concentration  $\geq 2$  < 3 %  
Classification (Regulation (EC) No. 1272/2008)  
Acute Tox. 4 H302  
Skin Corr. 1A H314  
Met. Corr. 1 H290

**Concentration limits (Regulation (EC) No. 1272/2008)**

Eye Irrit. 2 H319  $\geq 0,5 < 2$  %  
Skin Corr. 1A H314  $\geq 5$  %  
Skin Corr. 1B H314  $\geq 2 < 5$  %  
Skin Irrit. 2 H315  $\geq 0,5 < 2$  %

ATE oral 333 mg/kg

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**Potassium gold-I-cyanid (68,2% Au)**

CAS No.	13967-50-5			
EINECS no.	237-748-4			
Registration no.	01-2120130777-52			
Concentration	>= 0,25	<	0,73	%
Classification (Regulation (EC) No. 1272/2008)				
	Met. Corr. 1		H290	
	Skin Irrit. 2		H315	
	Eye Dam. 1		H318	
	Aquatic Chronic 1		H410	
	Acute Tox. 2		H300	
	Acute Tox. 2		H330	
	Aquatic Acute 1		H400	
	Skin Sens. 1		H317	

ATE	oral	29	mg/kg
cATpE	inhalative, Dust/Mist	0,05	mg/l

**Cobalt sulphate, heptahydrate**

CAS No.	10026-24-1			
EINECS no.	233-334-2			
Concentration	>= 0,1	<	0,25	%
Classification (Regulation (EC) No. 1272/2008)				
	Acute Tox. 4		H302	
	Resp. Sens. 1		H334	
	Skin Sens. 1		H317	
	Muta. 2		H341	
	Carc. 1B		H350i	
	Repr. 1B		H360F	
	Aquatic Acute 1		H400	
	Aquatic Chronic 1		H410	

Concentration limits (Regulation (EC) No. 1272/2008)			
	Carc. 1B	H350i	>= 0,01 %

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

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. Clean body thoroughly (bath, shower). In any case show the physician the Safety Data Sheet.

**After inhalation**

Ensure supply of fresh air. Remove affected person from danger area. Seek medical advice immediately.

**After skin contact**

Wash off immediately with soap and water. Seek medical advice immediately.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

**After ingestion**

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

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

### **Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Dry powder

#### **Non suitable extinguishing media**

Full water jet

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

In case of combustion evolution of dangerous gases possible.

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighting**

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

#### **Other information**

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

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

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Refer to protective measures listed in Sections 7 and 8.

### **6.2. Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Pick up with absorbent material. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of absorbed material in accordance with the regulations.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 7 and 8.

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

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Avoid formation of aerosols. Perform filling operations only at stations with exhaust ventilation facilities. Provide suitable exhaust ventilation at the processing machines. If workplace limits are exceeded, a

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respiratory protection approved for this particular job must be worn. Keep container tightly closed.

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

### Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

### Hints on storage assembly

Do not store together with foodstuffs.

### Storage classes

Storage class according to TRGS 510	6.1D	Non-combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects
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### Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Other information

Contains no substances with occupational exposure limit values.

#### Derived No/Minimal Effect Levels (DNEL/DMEL)

##### potassium hydroxide

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	= 1	mg/m <sup>3</sup>

##### Potassium gold-I-cyanid (68,2% Au)

Type of value	Derived No Effect Level (DNEL)	
Route of exposure	dermal	
Mode of action	Chronic effects	
Concentration	= 0,1	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Route of exposure	inhalative	
Mode of action	Chronic effects	
Concentration	= 0,071	mg/m <sup>3</sup>

##### Cobalt sulphate, heptahydrate

Type of value	Derived No Effect Level (DNEL)	
Reference group	General Population	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	= 0,105	mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC)

##### Potassium gold-I-cyanid (68,2% Au)

Type of value	PNEC	
Type	Freshwater	
Concentration	= 0,2	µg/l

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Type of value	PNEC	
Type	Freshwater sediment	
Concentration	= 0,33	mg/kg
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	= 2	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	= 6	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	= 0,067	mg/kg
Type of value	PNEC	
Type	Saltwater	
Concentration	= 0,02	µg/l
Type of value	PNEC	
Type	Marine sediment	
Concentration	= 0,033	mg/kg

**Cobalt sulphate, heptahydrate**

Type of value	PNEC	
Type	Water	
Concentration	= 500	mg/m <sup>3</sup>
Type of value	PNEC	
Type	Saltwater	
Concentration	= 2400	mg/m <sup>3</sup>
Type of value	PNEC	
Type	Sediment	
Concentration	= 11000	mg/m <sup>3</sup>
Type of value	PNEC	
Type	Marine sediment	
Concentration	= 9500	mg/m <sup>3</sup>
Type of value	PNEC	
Type	Soil	
Concentration	= 7900	mg/m <sup>3</sup>
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	= 400	mg/m <sup>3</sup>

**8.2. Exposure controls****General protective and hygiene measures**

Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

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**Respiratory protection**

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.

**Hand protection**

Chemical resistant gloves

Appropriate Material neoprene

**Eye protection**

Safety glasses with side protection shield; Face shield

**Body protection**

Clothing as usual in the chemical industry. Protective shoes

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

liquid

**Colour**

pink

**Odour**

odourless

**Melting point**

Remarks not determined

**Freezing point**

Remarks not determined

**Boiling point or initial boiling point and boiling range**

Remarks not determined

**Flammability**

evaluation not determined

**Upper and lower explosive limits**

Remarks not determined

**Flash point**

Remarks Not applicable

**Ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**pH value**

Value 3,8 to 4,2

**Viscosity**

Remarks not determined

**Solubility(ies)**

Remarks not determined

**Partition coefficient n-octanol/water (log value)**

Remarks not determined

**Vapour pressure**

Remarks not determined

**Density and/or relative density**

Value = 1,030 to 1,040 g/ml

**Relative vapour density**

Remarks not determined

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**9.2. Other information****Odour threshold**

Remarks not determined

**Evaporation rate (ether = 1) :**

Remarks not determined

**Solubility in water**

Remarks not determined

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

**Other information**

None known

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

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

No hazardous reactions known.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

No hazardous reactions known.

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

Toxic gases/vapours, Irritant gases/vapours

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

ATE	4.723,32	mg/kg
	57	

Method calculated value (Regulation (EC) No. 1272/2008)

**Acute oral toxicity (Components)****potassium hydroxide**

Species	rat	
LD50		333 mg/kg

**Potassium gold-I-cyanid (68,2% Au)**

Species	rat	
LD50	=	29 mg/kg

**Cobalt sulphate, heptahydrate**

Species	rat	
LD50	=	582 mg/kg



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**Acute dermal toxicity**

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

**Acute dermal toxicity (Components)****Potassium gold-I-cyanid (68,2% Au)**

Species guinea pig  
LD50 = 5 mg/kg

**Acute inhalational toxicity**

ATE 11,3688 mg/l  
Administration/Form Dust/Mist  
Method calculated value (Regulation (EC) No. 1272/2008)  
Remarks Based on available data, the classification criteria are not met.

**Acute inhalative toxicity (Components)****Potassium gold-I-cyanid (68,2% Au)**

Species rat  
LC50 = 0,05 mg/l  
Duration of exposure 4 h

**Skin corrosion/irritation**

evaluation corrosive  
Remarks The classification criteria are met.

**Serious eye damage/irritation**

evaluation corrosive  
Remarks The classification criteria are met.

**Sensitization**

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

**Subacute, subchronic, chronic toxicity**

Remarks not determined

**Mutagenicity**

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

**Reproductive toxicity**

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

**Carcinogenicity**

evaluation May cause cancer by inhalation.  
Remarks The classification criteria are met.

**Specific Target Organ Toxicity (STOT)****Single exposure**

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

**Repeated exposure**

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

**Aspiration hazard**

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

**11.2 Information on other hazards****Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

**Other information**

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No toxicological data are available.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

#### **General information**

not determined

### **12.2. Persistence and degradability**

#### **General information**

not determined

### **12.3. Bioaccumulative potential**

#### **General information**

not determined

#### **Partition coefficient n-octanol/water (log value)**

Remarks not determined

### **12.4. Mobility in soil**

#### **General information**

not determined

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

#### **General information**

not determined

#### **Results of PBT and vPvB assessment**

The product contains no PBT substances  
The product contains no vPvB substances.

### **12.6 Endocrine disrupting properties**

#### **Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

### **12.7. Other adverse effects**

#### **General information**

not determined

#### **General information / ecology**

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Disposal recommendations for the product**

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

#### **Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

## **SECTION 14: Transport information \*\*\***

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	Land transport ADR/RID ***	Marine transport IMDG/GGVSee ***	Air transport ICAO/IATA ***
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
Label			
14.4. Packing group	-	-	-

## SECTION 15: Regulatory information

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

#### Other information

The product does not contain substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

### 15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

## SECTION 16: Other information

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Carc. 1B	H350i	Calculation method
Aquatic Chronic 3	H412	Calculation method

### Hazard statements listed in Chapter 2/3

H290	May be corrosive to metals.
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
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.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360F	May damage fertility.
H400	Very toxic to aquatic life.

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H410

Very toxic to aquatic life with long lasting effects.

H412

Harmful to aquatic life with long lasting effects.

**CLP categories listed in Chapter 2/3**

Acute Tox. 2

Acute toxicity, Category 2

Acute Tox. 4

Acute toxicity, Category 4

Aquatic Acute 1

Hazardous to the aquatic environment, acute, Category 1

Aquatic Chronic 1

Hazardous to the aquatic environment, chronic, Category 1

Aquatic Chronic 3

Hazardous to the aquatic environment, chronic, Category 3

Carc. 1B

Carcinogenicity, Category 1B

Eye Dam. 1

Serious eye damage, Category 1

Eye Irrit. 2

Eye irritation, Category 2

Met. Corr. 1

Substance or mixture corrosive to metals, Category 1

Muta. 2

Germ cell mutagenicity, Category 2

Repr. 1B

Reproductive toxicity, Category 1B

Resp. Sens. 1

Respiratory sensitization, Category 1

Skin Corr. 1A

Skin corrosion, Category 1A

Skin Corr. 1B

Skin corrosion, Category 1B

Skin Irrit. 2

Skin irritation, Category 2

Skin Sens. 1

Skin sensitization, Category 1

STOT SE 3

Specific target organ toxicity - single exposure, Category 3

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.