

Gold Bath JE270-3.2 for Pen-Plating

Revision date: 23.08.2019

Product code: 9892

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P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see 4. on this label).
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see 4. on this label).
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P391	Collect spillage.
P405	Store locked up.

Special labelling of certain mixtures

EUH032 Contact with acids liberates very toxic gas.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	GHS Classification	
13967-50-5	Potassium dicyanoaurate(I)	3-<5 %
	237-748-4	
	Acute Tox. 1, Acute Tox. 1, Acute Tox. 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H300 H330 H400 H410 EUH032	
544-92-3	Copper (I) cyanide	3-<5 %
	208-883-6	
	Acute Tox. 1, Acute Tox. 2, Aquatic Acute 1; H300 H310 H400	

Full text of H and EUH statements: see section 16.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Do not leave affected person unattended. After inhaling vapours, first symptoms of poisoning may develop hours later, so always consult a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Put victim at rest, cover with a blanket and keep warm. Do not leave affected person unattended. In case of breathing difficulties administer oxygen. If victim is at risk of losing consciousness, position and transport on their side.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

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After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

after ingestion: Headaches and dizziness may occur, proceeding to fainting or unconsciousness; large doses may result in coma and death.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing powder.
Foam.

Unsuitable extinguishing media

Extinguishing media which must not be used for safety reasons: Water spray. Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.
Do not allow water used to extinguish fire to enter drains or waterways.

Additional information

The product itself does not burn.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required.

6.2. Environmental precautions

Do not empty into drains; dispose of this material and its container in a safe way.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.
Retain contaminated washing water and dispose it.

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

When using do not eat, drink, smoke, sniff.
The product should be handled only by trained personnel.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep locked up and out of the reach of children.
Keep only in the original container in a cool, well-ventilated place away from acids.

Hints on joint storage

Do not store together with: Acid.

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Further information on storage conditions

Store in a place accessible by authorized persons only.

7.3. Specific end use(s)

Plating agents and metal surface treating agents

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
13967-50-5	Potassium dicyanoaurate(I)		
Worker DNEL, acute	inhalation	systemic	0,071 mg/m ³
Worker DNEL, acute	dermal	systemic	0,1 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
13967-50-5	Potassium dicyanoaurate(I)	
Freshwater	0,000003 mg/l	

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls**Appropriate engineering controls**

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Eye/face protection

Safety glasses.

Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Thorough skin-cleansing after handling the product. After cleaning apply high-fat content skin care cream.

Skin protection

Use personal protection equipment.

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

Physical state:	liquid
Colour:	greenish blue
Odour:	product-specific

Test method

pH-Value (at 20 °C):

9

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Changes in the physical state

Initial boiling point and boiling range: ca. 100 °C
Sublimation point: not determined
Thermal decomposition: =>200 °C DIN 51556

Explosive properties

not explosive.

Lower explosion limits:

Upper explosion limits:

Oxidizing properties

Not oxidising.

Density (at 20 °C): 1,02 g/cm³

Water solubility: unlimited

Solubility in other solvents

not determined

Vapour density: not determined

Evaporation rate: not determined

Solvent separation test: not applicable

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

There are no data available on the mixture itself.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.5. Incompatible materials

Acid, concentrated.

10.6. Hazardous decomposition products

Hydrocyanic acid (hydrocyanic acid). Ammonia.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Fatal if swallowed.

Toxic in contact with skin or if inhaled.

ATEmix calculated

ATE (oral) 11,4 mg/kg; ATE (dermal) 125,0 mg/kg; ATE (inhalation vapour) 12,50 mg/l; ATE (inhalation aerosol) 1,250 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
13967-50-5	Potassium dicyanoaurate(I)				
	oral	LD50 5 mg/kg	Ratte		
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation aerosol	ATE 0,05 mg/l			
544-92-3	Copper (I) cyanide				
	oral	LD50 1270 mg/kg	Rat	Gestis	
	dermal	ATE 50 mg/kg			

Irritation and corrosivity

irritant.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

Aspiration hazard

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

Specific effects in experiment on an animal

LD50 oral , Ratte: 25< LD50 =<200 mg/kg

The statement is derived from the properties of the single components.

SECTION 12: Ecological information**12.2. Persistence and degradability**

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

not determined

12.4. Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater.

12.5. Results of PBT and vPvB assessment

Part of the components is biodegradable.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Refer to manufacturer or supplier for information on recovery or recycling.

Waste disposal number of waste from residues/unused products

110198 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing hazardous substances; hazardous waste

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Contaminated packaging

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

Non-contaminated packages may be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	UN 1935
14.2. UN proper shipping name:	CYANIDE SOLUTION, N.O.S. (Solution, contains potassium dicyanoaurate(I))
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1



Classification code:	T4
Special Provisions:	274 525
Limited quantity:	LQ17
Transport category:	2
Hazard No:	60
Tunnel restriction code:	D/E

Other applicable information (land transport)

Special provisions: 274

E1

: 2

E4

Inland waterways transport (ADN)

14.1. UN number:	UN 1935
14.2. UN proper shipping name:	CYANIDE SOLUTION, N.O.S. (Solution, contains potassium dicyanoaurate(I))
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1



Classification code:	T4
Special Provisions:	274 525 802
Limited quantity:	100 mL

Other applicable information (inland waterways transport)

E4

Marine transport (IMDG)

14.1. UN number:	UN 1935
14.2. UN proper shipping name:	CYANIDE SOLUTION, N.O.S. (Solution, contains potassium dicyanoaurate(I))
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	II
Hazard label:	6.1

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Marine pollutant: P
 Special Provisions: 274
 Limited quantity: 100 mL
 EmS: F-A, S-A

Other applicable information (marine transport)

E4

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1935
14.2. UN proper shipping name: CYANIDE SOLUTION, N.O.S. (Solution, contains potassium dicyanoaurate(I))
14.3. Transport hazard class(es): 6.1
14.4. Packing group: II
 Hazard label: 6.1



Limited quantity Passenger: 1 L
 IATA-packing instructions - Passenger: 654
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 661
 IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

E1

: Y611

Special provisions: A3 A4 A137

E4

: Y609

: Y641

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Information according to 2012/18/EU (SEVESO III): H2 ACUTE TOXIC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils 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.

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Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,14,15,16.

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 2; H300	Calculation method
Acute Tox. 2; H310	Calculation method
Acute Tox. 4; H332	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H300	Fatal if swallowed.
H300+H310	Fatal if swallowed or in contact with skin.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

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 present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)