

Printing date: 21.12.2022

*

Version number 12 (replaces version 11)

Revision: 21.12.2022

1.1 Product identifier	
Trade name: Gold plating bath GP 206, 2 g Au/l	
Goldplattierbad GP 206, 2 g Au/l	
Article number:	
81012709	
81020423 = 1 liter	
1.2 Relevant identified uses of the substance or mixture and uses advised against Not approved for private consumers.	
Application of the substance / the mixture Galvanic bath	
1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:	
Heimerle + Meule GmbH Dennigstrasse 16 D. 75170 Blove haim	
D-75179 Pforzheim	
Telefon +49 (0) 7231 940-0	
Telefax +49 (0) 7231 940-2199	
www.heimerle-meule.com	
Further information obtainable from:	
Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment sds@heimerle-meule.com	
IATA - 24h Emergency Contact - IATA - 24h Emergency Contact - (Dangerous goods emergency number) +49 172 739 6970	
1.4 Emergency telephone number:	
DEUTSCHLAND - GERMANY:	
Vergiftungs-Informations-Zentrale Freiburg, ++49 761 19240 (24 h)	
(Poisoning Information Center)	
<u>GREAT BRITAIN:</u> National Poisons Information Service +44 121 507 4123	
Members of the public seeking specific information on poisons should contact:	
In England and Wales: NHS 111 - dial 111 - In Scotland: NHS 24 - dial 111	
IRELAND	
+353 1 809 2166 (7 Days 8 am -10 pm) Healthcare Professionals: +353 1 809 2566	
ITALY:	
$\overline{Istituto}$ Superiore di Sanità (ISS) +3906499906140	
Centro Antiveleni	
Bergamo: +39 800 883300 Firenze +39 055 794 7819	
Milano: +39 055 794 7819	
Roma +39 06 68593726	
Roma +39 06 49978000 Roma + 30 06 205 42 42	
Roma +39 06 3954343 KROATIA - REPUBLIKA HRVATSKA:	
(+385) 01 2348 342	
ESTLAND - ESTONIA:	
Tervisemeti Mürgistusteabekeskuse	
National (24/7): 16662	(Contd. on page



Revision: 21.12.2022

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 1)

(+372) 7943 794 <u>LETTLAND - LATVIA:</u> Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs, (24h) 112 (24h) +371 67042473 <u>LITAUEN - LIETUVOS RESPUBLIKA:</u> Poison Information Bureau (24/7), Tel.: +8 5 236 20 52 Apsinuodijimų informacijos biuras



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



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

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· 2.2 Label elements

- · Labelling according to Regulation (EC) No 1272/2008
- *The product is classified and labelled according to the GB CLP regulation. Hazard pictograms*



· Signal word Warning

- · Hazard-determining components of labelling:
- Potassium dicyanoaurate

· Hazard statements

H312+H332 Harmful 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.
- *P273 Avoid release to the environment.*
- *P280 Wear protective gloves / protective clothing.*
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- *P501* Dispose of contents/container in accordance with local/regional/national/international regulations.

• Additional information:

EUH208 Contains Potassium dicyanoaurate. May produce an allergic reaction.

· 2.3 Other hazards

- Results of PBT and vPvB assessment
- **PBT:** Not applicable.

(Contd. on page 3)

⁻ G!

Version number 12 (replaces version 11)

Page 3/11

Revision: 21.12.2022

Trade name: Gold plating bath GP 206, 2 g Au/l

Goldplattierbad GP 206, 2 g Au/l

· vPvB: Not applicable.

Printing date: 21.12.2022

(Contd. of page 2)

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

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

· Dangerous components / Information on ingredients:			
CAS: 7758-98-7 EINECS: 231-847-6 Index number: 029-004-00-0 RTECS: GL 8800000	Copper(II) sulphate; copper sulphate; copper sulfate Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	0.25-0.5%	
CAS: 13967-50-5 EINECS: 237-748-4 Reg.nr.: 01-2120130777-52	Potassium dicyanoaurate Acute Tox. 2, H300; Acute Tox. 2, H330 Met. Corr.1, H290; Eye Dam. 1, H318 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Irrit. 2, H315; Skin Sens. 1, H317	0.29%	
CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2	ammonia; ammonia solution%; ammonia, aqueous solution; Ammonium hydroxide Skin Corr. 1B, H314 Aquatic Acute 1, H400 Specific concentration limit: STOT SE 3; H335: $C \ge 5$ %	<i>≥</i> 0.1-<0.25%	
CAS: 151-50-8 EINECS: 205-792-3 Index number: 006-007-00-5 Reg.nr.: 01-2119486407-29-xxxx	 Potassium cyanide Acute Tox. 1, H300; Acute Tox. 1, H310; Acute Tox. 1, H330 STOT RE 1, H372 Met. Corr.1, H290 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 EUH032 	≥0.025-<0.1%	

· 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.

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

Involve doctor immediately after a accident or unwell

• 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.

• After skin contact: If skin irritation continues, consult a doctor.

· After eye contact: Rinse opened eye for several minutes under running water.

· After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

A person vomiting while laying on their back should be turned onto their side.

• 4.2 Most important symptoms and effects, both acute and delayed Cyanides poisoning

(Contd. on page 4)

GB -

Page 4/11

Revision: 21.12.2022

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 3)

• **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: Use fire extinguishing methods suitable to surrounding conditions.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture In case of fire, the following can be released:
- 5.3 Advice for firefighters
- Protective equipment:

Mount respiratory protective device.



Wear self-contained respiratory protective device.

Beware: Filter masks provide protection for a short period of time only. They should only be used in exceptional cases, that is if a small amount of the substance has spilled out or in order to fight spillages and fire

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust/aerosol. Only handle and refill product in closed systems.
 6.2 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.

- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

he usual precautionary measures are to be adhered to when handling chemicals.

Prevent formation of aerosols.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· Information about fire - and explosion protection: No special measures required.

(Contd. on page 5)

GB



Revision: 21.12.2022

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 4)

- GB

- \cdot 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Observe official regulations on storing packagings . Observe official regulations on storing packagings . Prevent any seepage into the ground.
- · Information about storage in one common storage facility:

Store away from foodstuffs.

- Further information about storage conditions: Keep container tightly sealed.
- Storage class: 12
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

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

CAS: 13967-50-5 Potas	•
WEL (Great Britain)	Long-term value: 5 mg/m ³ as CN; Sk
MAK (Germany)	Long-term value: 2E mg/m ³ als CN
CAS: 1336-21-6 ammor	nia
AGW (Germany)	Long-term value: 14 mg/m ³ , 20 ppm 2(I);DFG, EU, Y
CAS: 151-50-8 Potassiu	m cyanide
IOELV (European Union	n) Short-term value: 5 mg/m³ Long-term value: 1 mg/m³ Skin; as cyanide
AGW (Germany)	Long-term value: 1 E mg/m ³ 5(II);EU, H, Y
8.2 Exposure controls	The lists valid during the making were used as basis. g controls No further data; see item 7.
	easures, such as personal protective equipment
General protective and	
	measures are to be adhered to when handling chemicals.
	ks and at the end of work.
Do not inhale gases / fur	
Avoid contact with the eg According to EC Directi	
Respiratory protection:	
	e or low pollution use respiratory filter device. In case of intensive or longer exposur- catory protective device.
exceptional cases, that i	provide protection for a short period of time only. They should only be used in is if a small amount of the substance has spilled out or in order to fight spillages and
fire.	(Contd. on page 6



Revision: 21.12.2022

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 5) according EN 14387 according to EN 143 • Recommended filter device for short term use: Combination filter B-P2 · Hand protection Protective gloves according to EN 374 To avoid skin problems reduce the wearing of gloves to the required minimum. Only use chemical-protective gloves with CE-labelling of category III. Sensibilisation by the components in the glove materials is possible. *Check the permeability prior to each anewed use of the glove.* The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Prior to working with gloves the rubbing in with tanniferous skin-protecting agents for the avoidance of skin softening due to perspiration is recommended. · Material of gloves 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 application. Nitrile rubber, NBR Recommended thickness of the material: ≥ 0.4 mm Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 3). *Value for the permeation: Level* ≤ 3 • Not suitable are gloves made of the following materials: Leather gloves Strong material gloves · Eye/face protection Goggles recommended during refilling · Body protection: Protective work clothing **SECTION 9: Physical and chemical properties** • 9.1 Information on basic physical and chemical properties · General Information · Physical state Fluid · Colour: Blue · Odour: Characteristic · Odour threshold: Not determined. • Melting point/freezing point: Undetermined. · Boiling point or initial boiling point and boiling 100°C (212°F) range Flammability Not applicable. (Contd. on page 7)

Printing date: 21.12.2022

Version number 12 (replaces version 11)



Revision: 21.12.2022

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

	(Contd. of page
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH at 20°C (68°F)	8
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic at 20°C (68°F):	0.952 mPas
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20°C (68°F):	23 hPa (17.3 mm Hg)
Density and/or relative density	
<i>Density at 20°C (68°F):</i>	1.03 g/cm ³ (8.6 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health an	
environment, and on safety.	••
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Change in condition	Trouver ubes not present un explosion nuzuru.
Evaporation rate	Not determined.
•	
Information with regard to physical hazard classe Explosives	Noid
Flammable gases	Void
	Void
Aerosols Ovidining agents	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void Void
Flammable solids	
Self-reactive substances and mixtures	Void Void
Pyrophoric liquids	Void Void
Pyrophoric solids	Void Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable	17 • 1
gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

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 Reacts with acids, alkalis and oxidising agents.

• 10.4 Conditions to avoid No further relevant information available.

(Contd. on page 8)

⁻ GB



Revision: 21.12.2022

(Contd. of page 7)

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

• 10.5 Incompatible materials: No further relevant information available.

· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

· Acute toxicity Harmful in contact with skin or if inhaled.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

 Oral
 LD50
 10,000 mg/kg (Rat)

 Inhalative
 LC50/4 h
 17.2 mg/l

CAS: 7758-98-7 Copper(II) sulphate

Oral LD50 500 mg/kg (ATE) CAS: 13967-50-5 Potassium dicyanoaurate

Oral LD50 29 mg/kg (Rat)

Inhalative LC50/4 h 0.05 mg/l/(ATE) (rat)

CAS: 151-	50-8 Potas	sium cyanide
Oral	LD50	5 mg/kg (Rat)

Dermal LD50 5 mg/kg (ATE)

Inhalative LC50/4 h 0.005 mg/l (ATE)

• 11.2 Information on other hazards

• Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 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.
- 12.5 Results of PBT and vPvB assessment Not applicable.
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects
- Remark: Harmful to fish
- Additional ecological information:
- · General notes:

At present there are no ecotoxicological assessments.

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. Harmful to aquatic organisms

(Contd. on page 9)

Version number 12 (replaces version 11)

Page 9/11

Revision: 21.12.2022

Trade name: Gold plating bath GP 206, 2 g Au/l

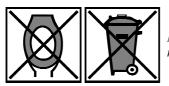
Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 8)

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Printing date: 21.12.2022



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

- Contact manufacturer for recycling information.
- · Waste disposal key:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

- · Uncleaned packaging:
- · Recommendation:
- Disposal must be made according to official regulations.

Packaging which is uncleaned or soiled with product remains is to be treated like the product itself Packaging free of product remains is to be supplied refuse for recycling. Only if no adequate collecting system is available, they may be disposed of through the domestic rubbish

• Recommended cleansing agents: Water, if necessary together with cleansing agents.

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es)	
ADR, ADN, IMDG, IATA Class	Void
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk according instruments	to IMO Not applicable.
Transport/Additional information:	
IATA Remarks:	
	24h emergency contact - (Dangerous goods emergency number)
	+49 172 739 6970

Version number 12 (replaces version 11)



Revision: 21.12.2022

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

· UN "Model Regulation":

Printing date: 21.12.2022

Void

SECTION 15: Regulatory information

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

COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

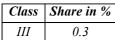
GADSL - Global Automotive Declarable Substance List			
CAS: 7758-98-7	Copper(II) sulphate	D/P(LR)	
CAS: 10102-18-8	sodium selenite	D(FI)	

· Directive 2012/18/EU

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

• National regulations:

• Technical instructions (air):



· Waterhazard class: .

· Other regulations, limitations and prohibitive regulations -

• 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.

· Reasons for revise

If necessary, this saftey data sheet can revised according to legal guidelines.

Our current version for your reference is available on our website www.heimerle-meule.com

• Date from last issue : 20.04.2020

· Relevant phrases

- H290 May be corrosive to metals.
- H300 Fatal if swallowed.
- H302 Harmful if swallowed.
- H310 Fatal in contact with skin.
- 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.
- H372 Causes damage to organs through prolonged or repeated exposure.

(Contd. on page 11)

(Contd. of page 9)

[—]6



Revision: 21.12.2022

Printing date: 21.12.2022

Version number 12 (replaces version 11)

Trade name: Gold plating bath GP 206, 2 g Au/l Goldplattierbad GP 206, 2 g Au/l

(Contd. of page 10) H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. EUH032 Contact with acids liberates very toxic gas. • Department issuing SDS: Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment sds@heimerle-meule.com · Contact: Herr Thomas Knuth thomas.knuth@heimerle-meule.com sds@heimerle-meule.com · 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) ICAO: International Civil Aviation Organisation AwSV: Ordinance on facilities for handling water-polluting substances (German regulation). TRGS: Technical rules for hazardous substances (German regulation) ADR: Accord relatif au transport international 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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 1: Acute toxicity - Category 1 Acute Tox. 2: Acute toxicity - Category 2 Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1B: Skin corrosion/irritation - Category 1B 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 Skin Sens. 1: Skin sensitisation - Category 1 STOT RE 1: Specific target organ toxicity (repeated exposure) - Category 1 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 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.