

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date: 06.10.2020

Version number 3

Revision: \_\_\_\_\_ 06.10.2020

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

· **1.1 Product identifier**

· **Trade name:** Ammonium gold sulfite 100 g/l Gold

Ammoniumgoldsulfit 100g/l Gold

· **Article number:** 86900177

· **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-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-Informationen-Zentrale Freiburg, ++49 761 19240 (24 h)  
(Poisoning Information Center)

GREAT BRITAIN:  
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

ITALY:  
Istituto Superiore di Sanità +3906499906140

KROATIA - REPUBLIKA HRVATSKA:  
(+385) 01 2348 342

ESTLAND - ESTONIA:  
Tervisemeti Mürgistusteabekeskuse 16662, (+342) 7914 794

LETTLAND - LATVIA:  
Latvijas Vides, ģeoloģijas un meteoroloģijas centrs (+371) 670 32600

LITAUEN - LIETUVOS RESPUBLIKA:  
Apsinuodijimų informacijos biuras +370 (85) 2362052

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**Ammoniumgoldsulfid 100g/l Gold**

(Contd. of page 1)

## SECTION 2: Hazards identification

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



GHS07

- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.

- 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



GHS07

- Signal word Warning
- Hazard-determining components of labelling:  
Ammonium disulfido aurate (I) solution  
ammonia  
ammonium sulphite
- Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.
- Precautionary statements  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves / eye protection / face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P337+P313 If eye irritation persists: Get medical advice/attention.
- Additional information:  
EUH031 Contact with acids liberates toxic gas.
- Labelling of packages where the contents do not exceed 125 ml
- Hazard pictograms



GHS07

- Signal word Warning
- Hazard-determining components of labelling:  
Ammonium disulfido aurate (I) solution

(Contd. on page 3)

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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfid 100g/l Gold**

(Contd. of page 2)

- ammonia
- ammonium sulphite
- **Hazard statements** Void
- **Precautionary statements**  
P280 Wear protective gloves / eye protection / face protection.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components / Information on ingredients:**

CAS: 71662-32-3 EINECS: 275-798-9	Ammonium disulfito aurate (I) solution ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10–25%
CAS: 10196-04-0 EINECS: 233-484-9 RTECS: WT 3505000	ammonium sulphite ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10–25%
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 ≥ 5 %	<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:**  
Take affected persons out into the fresh air.  
Involve doctor immediately.  
Immediately remove any clothing soiled by the product.  
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:** In case of unconsciousness place patient stably in side position for transportation.
- **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. Then consult a doctor.
- **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** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

GB

(Contd. on page 4)

**Safety data sheet**  
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Version number 3

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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfit 100g/l Gold**

(Contd. of page 3)

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:  
Sulphur dioxide (SO<sub>2</sub>)  
Ammonia (NH<sub>3</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:**



Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.  
Mount respiratory protective device.  
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:**  
Do not allow product to reach sewage system or any water course.  
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).  
Dispose contaminated material as waste according to item 13.
- **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.  
The usual precautionary measures are to be adhered to when handling chemicals.  
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.
- **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 .

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

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Version number 3

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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfid 100g/l Gold**

(Contd. of page 4)

- Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**  
Do not store together with acids.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from frost.  
Keep container tightly sealed.  
Store under lock and key and out of the reach of children.
- **Storage class:** 12
- **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:**

**CAS: 1336-21-6 ammonia**

AGW (Germany)	Long-term value: 14 mg/m <sup>3</sup> , 20 ppm 2(I);DFG, EU, Y
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- **Regulatory information AGW (Germany):** TRGS 900
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.  
According to EC Directive 89/686/EEC
- **Respiratory protection:**  
Not necessary if room is well-ventilated.  
Use suitable respiratory protective device only when aerosol or mist is formed.  
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.  
according EN 14387  
according to EN 143
- **Protection of hands:**



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 renewed use of the glove.

(Contd. on page 6)

**Safety data sheet**  
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Printing date: 06.10.2020

Version number 3

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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfid 100g/l Gold**

(Contd. of page 5)

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.

Natural rubber, NR

Recommended thickness of the material:  $\geq 0.5$  mm

Chloroprene rubber, CR

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

· **Penetration time of glove material**

The exact break through 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).

· **Not suitable are gloves made of the following materials:**

Leather gloves

Strong material gloves

· **Eye protection:**



Tightly sealed goggles

according to EN 166

· **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Clear

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value at 20°C (68°F):** 9–10

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100°C (212°F)

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Decomposition temperature:** Not determined.

(Contd. on page 7)



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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfit 100g/l Gold**

(Contd. of page 6)

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20°C (68°F):</b>	23 hPa (17.3 mm Hg)
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Easily soluble.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Solids content:</b>	0.0 %
· <b>9.2 Other information</b>	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**  
Reacts with acids, alkalis and oxidising agents.  
Contact with acids releases toxic gases.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Acids
- **10.6 Hazardous decomposition products:**  
Sulphur dioxide  
Ammonia

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.

(Contd. on page 8)

**Safety data sheet**  
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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfite 100g/l Gold**

(Contd. of page 7)

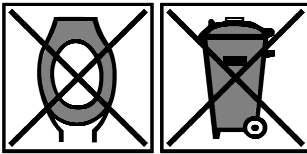
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## 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.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **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**



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.
- **European waste catalogue**  
There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste

HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP12	Release of an acute toxic gas

- **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.

GB

(Contd. on page 9)



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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfit 100g/l Gold**

(Contd. of page 8)

### SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, 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 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information: ----- · IATA · Remarks:	24h emergency contact - (Dangerous goods emergency number)  +49 172 739 6970
· UN "Model Regulation":	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

· TSCA (Toxic Substances Control Act)

CAS: 10196-04-0 | ammonium sulphite

CAS: 1336-21-6 | ammonia

· GADSL - Global Automotive Declarable Substance List

None of the ingredients is listed.

· Directive 2012/18/EU

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

· Seveso category E2 Hazardous to the Aquatic Environment

· Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t

· Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

(Contd. on page 10)

**Safety data sheet**  
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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfit 100g/l Gold**

(Contd. of page 9)

- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 65

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- **National regulations:**

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

- **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 safety data sheet can be revised according to legal guidelines.

Our current version for your reference is available on our website

[www.heimerle-meule.com](http://www.heimerle-meule.com)

- **Date from last issue :** 19.03.2018

- **Relevant phrases**

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

- **Department issuing SDS:**

Abteilung BASU - Bau/Arbeitssicherheit/Umwelt

Department BASU - Construction / Occupational Safety / Environment

[sds@heimerle-meule.com](mailto:sds@heimerle-meule.com)

- **Contact:**

Herr Thomas Knuth

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[sds@heimerle-meule.com](mailto: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)

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)

AwSV: Ordinance on facilities for handling water-polluting substances (German regulation).

TRGS: Technical rules for hazardous substances (German regulation)

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

(Contd. on page 11)

**Safety data sheet**  
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**Trade name: Ammonium gold sulfite 100 g/l Gold**  
**Ammoniumgoldsulfite 100g/l Gold**

(Contd. of page 10)

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

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

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