

Printing date: 19.02.2019 Version number 7 Revision: 19.02.2019

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

· 1.1 Product identifier

· Trade name: Silver stripping salt H

Silberglänzsalz H

- · Article number: 86941850
- · 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

Electroplating auxiliary

- · 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 sds@heimerle-meule.com

IATA - 24h Emergency Contact -(Gefahrgut-Notrufnummer) +49 172 739 6970

· 1.4 Emergency telephone number:

Vergiftungs-Informations-Zentrale Freiburg, ++49 761 19240 (24 h)

SECTION 2: Hazards identification

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



GHS06 skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 1 H310 Fatal in contact with skin.

Acute Tox. 1 H330 Fatal if inhaled.

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Trade name: Silver stripping salt H Silberglänzsalz H

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STOT RE 1 H372 Causes damage to the thyroid through prolonged or repeated exposure.



Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic 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 CLP regulation.

· Hazard pictograms







GHS06

GHS08

GHS09

- · Signal word Danger
- · Hazard-determining components of labelling:

Potassium cyanide

· Hazard statements

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

H372 Causes damage to the thyroid through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements

P273 Avoid release to the environment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

EUH032 Contact with acids liberates very toxic gas.

- Labelling of packages where the contents do not exceed 125 ml
- · Hazard pictograms







GHS06

GHS08

GHS09

· Signal word Danger

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Trade name: Silver stripping salt H Silberglänzsalz H

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· Hazard-determining components of labelling:

Potassium cyanide

· Hazard statements

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

H372 Causes damage to the thyroid through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· 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: 151-50-8	Potassium cyanide	50-100%
EINECS: 205-792-3	Acute Tox. 1, H300; Acute Tox. 1, H310; Acute Tox. 1,	-1
Index number: 006-007-00-5	H330	
RTECS: TS 8760000	♦ STOT RE 1, H372	
Reg.nr.: 01-2119486407-29-xx		
	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 14459-95-1	Potassium hexacyanoferrate(II)	25-50%
	Aquatic Chronic 3, H412	-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:

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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 or oxygen; call for doctor.

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

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

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· After swallowing:

Call a doctor immediately.

Do not induce vomiting; call for medical help immediately.

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.

Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Cyanosis

Cyanides poisoning

- · Information for doctor: Cyanides poisoning
- · 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.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture Hydrogen cyanide (HCN)
- 5.3 Advice for firefighters
- · Protective equipment:

Wear fully protective suit.



Wear self-contained respiratory protective device.

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Keep people at a distance and stay on the windward side.

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:

Keep contaminated washing water and dispose of appropriately.

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:

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.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Any unavoidabledeposit of dust must be regularly removed.

Thorough dedusting.

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

he 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: 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.

Provide solvent resistant, sealed floor.

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 flammable substances.

Do not store together with acids.

Store away from foodstuffs.

Further information about storage conditions:

Keep container tightly sealed.



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

Store under lock and key and out of the reach of children.

- · Storage class: 6.1 B
- · 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: 151-50-8 Potassium	cyanide	
WEL (Great Britain)	Short-term value: 5 mg/m³ Long-term value: 1 mg/m³ Sk, as CN	
	Short-term value: 5 mg/m³ Long-term value: 1 mg/m³ Skin; as cyanide	

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AGW (Germany) Long-term value: 1 E mg/m³ 5(II); EU, H, Y

· 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.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

According to EC Directive 89/686/EEC

· Respiratory protection:

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.

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

- · Recommended filter device for short term use: Combination filter B-P2
- · 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 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.

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 374 part III 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

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Strong material gloves

· Eye protection:



Tightly sealed goggles

according to EN 166

· Body protection: Protective work clothing

SECTION 9: Ph	veical and	chamical	nuanautias
SECTION 9. FR	vsicai aria	cnemicui	properties

· 9.1 Information on basic physical and ch	nemical properties
· General Information	iemem properues
· Appearance:	
Form:	Crystalline
Colour:	Yellow
Odour:	Like bitter almonds
· Odour threshold:	Not determined.
pH-value:	Not applicable.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gas):	Not determined.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
· Vapour density	Not applicable.
Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
water:	Soluble.
Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
Solids content:	66.6 %

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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

Contact with acids releases very toxic gases

Reacts with acids, alkalis and oxidising agents.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: Acids
- · 10.6 Hazardous decomposition products: Hydrogen cyanide (prussic acid)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

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

· LD/LC50	· LD/LC50 values relevant for classification:		
ATE (Acua	ATE (Acute Toxicity Estimates)		
Oral	LD50	7.51 mg/kg (Rat)	
Dermal	LD50	7.51 mg/kg	
Inhalative	LC50/4 h	0.00751 mg/l	

CAS: 151-50-8 Potassium cyanide		
Oral		5 mg/kg (Rat)
	LD50	5 mg/kg (ATE)
Inhalative	LC50/4 h	0.005 mg/l (ATE)

- · 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 Based on available data, the classification criteria are not met.
- · Reproductive toxicity 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

Causes damage to the thyroid through prolonged or repeated exposure.

· 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.

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· Ecotoxical effects:

· Remark: Very toxic for fish

- · Additional ecological information:
- · General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

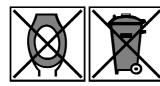
Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- · 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

11 00 00	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY	
11 01 00	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)	
11 01 98*	other wastes containing hazardous substances	
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity	
HP 6	Acute Toxicity	
HP 12	Release of an acute toxic gas	
HP 14	Ecotoxic	

· 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

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

14.1 UN-Number ADR, IMDG, IATA	UN1588
14.2 UN proper shipping name ADR	UN1588 CYANIDES, INORGANIC, SOLID, N.O.S (POTASSIUM CYANIDE, Potassium hexacyanoferrate(II),
IMDG	ENVIRONMENTALLY HAZARDOUS CYANIDES, INORGANIC, SOLID, N.O.S. (POTASSIUN CYANIDE, Potassium hexacyanoferrate(II)), MARIN. POLLUTANT
IATA	CYANIDES, INORGANIC, SOLID, N.O.S. (POTASSIUN CYANIDE, Potassium hexacyanoferrate(II))
14.3 Transport hazard class(es)	
ADR, IMDG	
Class Label	6.1 Toxic substances. 6.1
Class Label	6.1 Toxic substances. 6.1
14.4 Packing group	0.1
ADR, IMDG, IATA	I
14.5 Environmental hazards:	
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Toxic substances.
Danger code (Kemler):	66
EMS Number:	F-A,S-A
Segregation groups	Cyanides
Stowage Category Segregation Code	A SG35 Stow "separated from" acids.

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	(Contd. of page 1
Transport/Additional information:	
- ADR	
Limited quantities (LQ)	0
Excepted quantities (EQ)	Code: E5
	Maximum net quantity per inner packaging: 1 g
	Maximum net quantity per outer packaging: 300 g
Transport category	
Tunnel restriction code	C/E
· IMDG	
Limited quantities (LQ)	0
Excepted quantities (EQ)	Code: E5
	Maximum net quantity per inner packaging: 1 g
	Maximum net quantity per outer packaging: 300 g
IATA	
Remarks:	
	24h Emergency Contact -
	(Gefahrgut-Notrufnummer)
	+49 172 739 6970
UN "Model Regulation":	UN 1588 CYANIDES, INORGANIC, SOLID, N.O.
	(POTASSIUM CYANIDE, POTASSIU)
	HEXACYANOFERRATE(II)), 6.1, I, ENVIRONMENTALI
	HAZARDOUS

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category

H1 ACUTE TOXIC

El Hazardous to the Aquatic Environment

- Qualifying quantity (tonnes) for the application of lower-tier requirements 5 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 20 t
- · National regulations:
- · Waterhazard class: Water hazard class 3 (Self-assessment): extremely hazardous for water.
- · Other regulations, limitations and prohibitive regulations -
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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 :** 06.02.2017

· Relevant phrases

H290 May be corrosive to metals.

H300 Fatal if swallowed.

H310 Fatal in contact with skin.

H330 Fatal if inhaled.

H372 Causes damage to the thyroid through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· Department issuing SDS:

Department BASU - Bau/Arbeitssicherheit/Umwelt

sds@heimerle-meule.com

· Contact:

Herr Thomas Knuth

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)

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)

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

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.