WIELAND

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

Printing date 28.09.2018 Version number 3 Revision: 28.09.2018

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

· **1.1 Product identifier**

· **Trade name:** **Hexachloroplatin(IV)-saeure 44,5% Pt, 46,2% Pt, 46,4% Pt, 47,4% Pt**
Hexachloroplatinic(IV)acid 44,5% Pt, 46,2% Pt, 46,4% Pt, 47,4% Pt

· **Article number:** 4030110201, 4030110401, 4030110501, 4030110301
· **Registration number** 01-2120752845-45
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use**
SU9 Manufacture of fine chemicals
SU14 Manufacture of basic metals, including alloys
· **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4 Chemical production where opportunity for exposure arises
PROC5 Mixing or blending in batch processes
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
PROC21 Low energy manipulation and handling of substances bound in/on materials or articles
PROC22 Manufacturing and processing of minerals and/or metals at substantially elevated temperature
PROC26 Handling of solid inorganic substances at ambient temperature
PROC27a Production of metal powders (hot processes)
PROC27b Production of metal powders (wet processes)
· **Environmental release category**
ERC1 Manufacture of the substance
ERC6a Use of intermediate
· **Application of the substance / the mixture** Initial product for chemical reactions

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Wieland Edelmetalle GmbH
Schwenninger Str. 13
75179 Pforzheim
Telefon +49 (07231)-1393-0, Telefax +49 (07231)-1393-100

· **Further information obtainable from:**
Wieland Edelmetalle GmbH
www.wieland-edelmetalle.de
msds@wieland-edelmetalle.de
· **1.4 Emergency telephone number:**
Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463

*

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.

(Contd. on page 2)

WIELAND

Safety data sheet
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Trade name: Hexachloroplatin(IV)-saeure 44,5% Pt, 46,2% Pt, 46,4% Pt, 47,4% Pt
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(Contd. of page 1)


GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.


GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.


GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.


GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **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**


GHS05 GHS06 GHS08 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
hexachloroplatinic acid
hexachloroplatinic acid hydrate
· **Hazard statements**
H290 May be corrosive to metals.
H300 Fatal if swallowed.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.
· **Precautionary statements**
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321 Specific treatment (see on this label).
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.

(Contd. on page 3)

WIELAND

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

Printing date 28.09.2018 Version number 3 Revision: 28.09.2018

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(Contd. of page 2)

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

· **3.1 Chemical characterisation: Substances**
· **CAS No. Description**
16941-12-1 hexachloroplatinic acid
18497-13-7 Hexachloroplatinic(IV)acid hexahydrate
· **Identification number(s)**
· **EC number:** 241-010-7
· **Index number:** 078-009-00-4
· **3.2 Chemical characterisation: Mixtures**
· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**	
CAS: 16941-12-1 EINECS: 241-010-7	hexachloroplatinic acid Acute Tox. 2, H300; Resp. Sens. 1, H334; Skin Corr. 1B, H314; Skin Sens. 1, H317
CAS: 18497-13-7 EC number: 629-612-1	hexachloroplatinic acid hydrate Acute Tox. 2, H300; Resp. Sens. 1, H334; Met. Corr.1, H290; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317

· **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.
· **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:**
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:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
· **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.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

(Contd. on page 4)

WIELAND

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

Printing date 28.09.2018 Version number 3 Revision: 28.09.2018

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(Contd. of page 3)

· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Hydrogen chloride (HCl)
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information**
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.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Ensure adequate ventilation.
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**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
· **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:** Store only in the original receptacle.
· **Information about storage in one common storage facility:** Store away from flammable substances.
· **Further information about storage conditions:**
Store under lock and key and with access restricted to technical experts or their assistants only.
Keep receptacle tightly sealed.
· **Storage class:** 6.1B
· **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:**	
16941-12-1 hexachloroplatinic acid	
WEL	Long-term value: 0.002 mg/m³ as Pt; Sen

· **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 5)

WIELAND

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

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Trade name: Hexachloroplatin(IV)-saeure 44,5% Pt, 46,2% Pt, 46,4% Pt, 47,4% Pt
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(Contd. of page 4)

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **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.
Filter P2
· **Protection of hands:**


Protective gloves

· **Material of gloves**
Chloroprene rubber, CR
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
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.
· **Penetration time of glove material**
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.
Value for the permeation: Level ≤ 6
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**


Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Crystalline
Colour:	Red-brown
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition**	
Melting point/freezing point:	60 °C
Initial boiling point and boiling range:	Undetermined.
· **Flash point:**	Not applicable.
· **Flammability (solid, gas):**	Not determined.

(Contd. on page 6)

WIELAND

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

Printing date 28.09.2018 Version number 3 Revision: 28.09.2018

Trade name: Hexachloroplatin(IV)-saeure 44,5% Pt, 46,2% Pt, 46,4% Pt, 47,4% Pt
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(Contd. of page 5)

· **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 at 20 °C:**	2.4 g/cm³
· **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:**	
Organic solvents:	0.0 %
· **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 and stored according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with alkali (lyes).
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Hydrogen chloride (HCl)

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Fatal if swallowed.

· **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)		
Oral	LD50	9.07 mg/kg

16941-12-1 hexachloroplatinic acid		
Oral	LD50	82 mg/kg (Mouse) 49 mg/kg (rat)
18497-13-7 hexachloroplatinic acid hydrate		
Oral	LD50	5 mg/kg (ATE)

(Contd. on page 7)

WIELAND

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(Contd. of page 6)

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
· **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** 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:**	
16941-12-1 hexachloroplatinic acid	
LC50	76.55 mg/l (96h) (fish)
EC50	0.13 mg/l (48h) (Invertebrates)
ErC50	9.8 mg/l (72h) (Chlorella vulgaris (algae))
NOEC	0.62 mg/l (72h) (fish)

· **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.
· **Ecotoxical effects:**
· **Remark:** Very toxic for fish
· **Additional ecological information:**
· **General notes:**
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
Water danger 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.
· **12.5 Results of PBT and vPvB assessment**
· **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**
Contact manufacturer for recycling information.
Must be specially treated adhering to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**	
06 00 00	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 01 00	wastes from the manufacture, formulation, supply and use (MFSU) of acids

(Contd. on page 8)

WIELAND

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(Contd. of page 7)

06 01 06*	other acids

· **Uncleaned packaging:**
· **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**
· **ADR, IMDG, IATA** 2507

· **14.2 UN proper shipping name**
· **ADR** 2507 CHLOROPLATINIC ACID, SOLID
· **IMDG, IATA** CHLOROPLATINIC ACID, SOLID

· **14.3 Transport hazard class(es)**

· **ADR**

· **Class** 8 (C2) Corrosive substances.
· **Label** 8

· **IMDG**

· **Class** 8 Corrosive substances.
· **Label** 8

· **IATA**

· **Class** 8 Corrosive substances.
· **Label** 8

· **14.4 Packing group**
· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:**
· **Marine pollutant:** No
Symbol (fish and tree)
· **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user** Warning: Corrosive substances.
· **Danger code (Kemler):** 80
· **EMS Number:** F-A,S-B
· **Segregation groups** Acids

(Contd. on page 9)

WIELAND

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(Contd. of page 8)

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	LQ24
· **Transport category**	3
· **Tunnel restriction code**	E
· **UN "Model Regulation":**	UN2507, CHLOROPLATINIC ACID, SOLID, 8, III

*
SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category**
H2 ACUTE TOXIC
E1 Hazardous to the Aquatic Environment
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **National regulations:**

· **Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.
· **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.

· **Relevant phrases**
H290 May be corrosive to metals.
H300 Fatal if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

· **Department issuing SDS:** Abteilung Umweltschutz
· **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

(Contd. on page 10)

WIELAND

Safety data sheet
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(Contd. of page 9)

vPvB: very Persistent and very Bioaccumulative
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – 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

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