

Safety data sheet
According to Regulation n. 1907/2006 and Regulation 878/2020
CHLOROPLATINIC ACID Pt 40%



Revision n. VI – 16.06.2024
Replaces revision n V - 22.11.2022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Chemical name	Hexachloroplatinic acid
Product code	140
Registration number	Exempt under Article 6(1)
C.A.S.	26023-84-7
CE Number	241-010-7
Molecular weight	409.81 g/mol (anhydrous)

Brute formula $H_2PtCl_6 \cdot nH_2O$

Commercial name Chloroplatinic acid Pt 40%

1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended uses Industrial use. Additive for galvanic baths.

Advised against uses Non in particular

1.3 Details of the supplier of the safety data sheet

Name	FAGGI ENRICO S.P.A.
Address	Via Majorana, 101/103 50019 Sesto Fiorentino FI
Telephone number	055311861
Fax number	055311791
Competent person responsible for the safety data sheet	lorenzo.magaldi@faggi.it

1.4 Emergency telephone number 111 - Medical helpline operating in England, in Scotland (NHS 24) and in Wales (NHS Direct Wales)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture according to Regulation (EC) n. 1272/2008

Hazard classes	Category codes	Hazard statements
Acute toxicity (oral)	3	H301 Toxic if swallowed.
Skin Corrosive	1B	H314 Causes severe skin burns and eye damage.
Respiratory sensitization	1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitive	1	H317 May cause an allergic skin reaction.

2.2 Label elements

Pictograms



Signal words

DANGER

Hazard statements

H301	Toxic 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.

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Precautionary statements	P270	Do not eat, drink or smoke when using this product.
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+	IF SWALLOWED: Immediately call a poison control
	P310	center/ doctor
	P301+	IF SWALLOWED Rinse mouth. Do NOT induce vomiting
	P330+	
	P331	
	P303+	IN CASE OF CONTACT WITH SKIN (or hair):
	P361+	immediately take off all contaminated clothing. Rinse
	P353	the skin / take a shower.
	P305+	IN CASE OF CONTACT WITH EYES rinse cautiously with
	P351+	water for several minutes.

- 2.3 Other hazards**
- It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII.
- It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance Hexachloroplatinic acid, 40% solid salt

CAS Number	26023-84-7
CE Number	241-010-7
INDEX Number	Not available
ATE (oral)	100 mg/kg bw
M Factor (acute)	Not applicable
M Factor (chronic)	Not applicable

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waist band. In the event of any complaints or symptoms, avoid further exposure.
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Ingestion	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.
Skin contact	Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Clean shoes thoroughly before reuse.
Eye contact	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Reccomendation:

- **Need to see a doctor immediately** YES
- **Possibility of delayed effects following exposure** YES
- **Move the exposed individual from the place of exposure to the open air** YES
- **Remove the clothing and shoes of the exposed individual** YES
- **How to handle contaminated clothing** With gloves
- **For those providing first aid, wear DPI** YES

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.

Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact: May cause an allergic skin reaction.

Ingestion: Fatal if swallowed. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following: pain, watering, redness.

Inhalation: Adverse symptoms may include the following: wheezing and breathing difficulties, asthma.

Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.

Ingestion: Adverse symptoms may include the following: stomach pains.

4.3 Indication of any immediate medical attention and special treatment needed

No specific treatment.

5. FIREFIGHTING MEASURES

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5.1 Extinguishing media

Suitable extinguishing media: Water spray, carbon dioxide.

Non suitable extinguishing media: None in particular.

5.2 Special hazards arising from the substance or mixture

Do not inhale the gases produced by the explosion and combustion. Burning produces heavy smoke. Heating can cause the formation of toxic and / or corrosive vapors (chlorine and hydrochloric acid, metal oxides)

5.3 Advice for firefighters

General information Prevent the water used to extinguish the fire from flowing into the sewer, groundwater or surface water. Cool containers at risk with water.

If feasible from a safety point of view, move undamaged containers from the area of immediate danger.

Equipment Normal fire-fighting clothing, such as self-contained open-circuit compressed air breathing apparatus (EN137), flame retardant suit (EN469), flame retardant gloves (EN659) and firefighter boots (HOA29 or A30).

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1. For non-emergency personnel

Move away from the contaminated area immediately and keep upwind.

6.1.2. For emergency responders

Use :

Chemical risk gloves compliant with EN420 EN374 standards.

Splash goggles compliant with Directive 89/686 / CEE and standard EN166: 2001.

Complete antacid clothing compliant with the UNI EN 13034: 2006 type 6 standard.

Mask with K-type filters compliant with EN14387: 2004 + A1: 2008.

6.2 Environmental precautions

Prevent infiltration into the sewer, ground water and surface water.

6.3 Methods and material for containment and cleaning up

6.3.1. Advice to contain a spill

Contain spill with appropriate absorbent material (sand, sawdust) and place in airtight container. Sprinkle with baking soda to neutralize acidity.

6.3.2. Advice to clean-up a spill

Wash the area with plenty of water.

6.3.3 Any other information

None

6.4 Reference to other sections

None

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Raccomentations to manipulate the substance or the mixture in a safe manner, such as containment measures and prevention of fire and aerosol and powders formation

Avoid contact with skin and eyes, inhalation of vapors and mists.

Do not use empty containers before they have been cleaned.

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Before transferring operations, make sure that there are no incompatible residual materials in the containers.

Contaminated clothing must be replaced before entering the dining areas. At work do not eat or drink.

7.1.2. General recommendation on work hygiene

Do not eat, drink, or smoke in work areas; wash hands thoroughly after use and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources

Keep the container tight and sealed until use.

7.2.2. Control of weather conditions, ambient pressure, temperature, sunlight, humidity, and vibration

Store in a cool, dry place.

7.2.3. Conditions for keeping substances / mixtures intact

The packages must be well closed and labeled.

7.2.4. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

Use PE and PP plastic packaging or other resistant materials. Keep the packages in a containment basin.

7.3. Specific end use(s)

Industrial use. Additive for galvanic baths

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker or exposure or environmental releases.

Control parameters

Occupational exposure limits:

Product/ingredient name: hexachloroplatinic acid

Exposure limit values: EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 0.002 mg/m³, (as Pt) 8 hours. EH40-OES (United Kingdom (UK)). Notes: Halogeno-Platinum Compounds, MEL: 0.002 mg/m³ 8 hours. Form: Metallic form.

DNEL

Workers

Systemic effects for long-term exposure – inhalation: high hazard (no threshold derived)

Systemic effects for short-term exposure – inhalation: high hazard (no threshold derived)

Local effects for long-term exposure – inhalation: high hazard (no threshold derived)

Local effects for short-term exposure – inhalation: high hazard (no threshold derived)

Systemic effects for long-term exposure – dermal: high hazard (no threshold derived)

Systemic effects for short-term exposure – dermal: high hazard (no threshold derived)

Local effects for long-term exposure – dermal: medium hazard (no threshold derived)

Local effects for short-term exposure – dermal: medium hazard (no threshold derived)

Eye hazards: medium hazard (no threshold derived)

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General population.

Hazard unknown but no further hazard information necessary as no exposure expected

PNEC

Freshwater: 0.14 µg/L

Marine water: 0.017 µg/L

Sewer treatment plant: 0.125 mg/L

Sediment (freshwater): 261 µg/kg sediment dry weight

Sediment (marine water): 26 µg/kg sediment dry weight

Soil: 5 µg/kg soil dry weight

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Local suction systems, emergency showers and eye washing system near the work area.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection Use closed safety goggles, do not use eye lenses.

Skin protection (hands) Chemical gloves according to EN 420 EN 374

Glove material:

Natural latex

Material thickness: 0.5 mm

Penetration time: ≥ 60 min DIN EN374 method

Skin protection (body) Complete antacid clothing compliant with the UNI EN 13034: 2006 type 6 standards.

Respiratory protection Semi-face masks with ABEK2P3 R filters conforming to EN14387: 2004 + A1: 2008

Thermal hazards Not available data.

8.2.3. Environmental exposure controls

Maintain all environments in suction using localized collection and ambient air exchange systems. Convey the aspirated volumes to an abatement system and then into the atmosphere. Do not use air recirculation suction systems. Avoid any spill into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Colour	Brown
Odour	Not applicable
Melting point/freezing point	60 °C
Boiling point or initial boiling point and boiling range	Decomposes
Flammability	Not flammable
Lower and upper explosion limit	Not explosive
Flash point	Not flammable
Auto-ignition temperature	Not flammable
Decomposition temperature	It decomposes according to various reaction stages up to the metallic Pt at about 500 ° C
pH	Not available data
Kinematic viscosity	Not available data

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Solubility	1400 g/L at 18 °C
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not available data
Density and/or relative density	2.4 g/cm ³
Relative vapour density	Not applicable
Particle characteristics	The portion of hexachloroplatinic acid <100 µm was 0.1 %.

9.2. Other information

None.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Proprietà catalitiche

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

Stable under normal conditions

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

Hydrochloric acid, chlorine, metal oxides

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity	ATE(oral) 100 mg/kg bw
Skin corrosion/irritation	Corrosive for the skin
Serious eye damage/irritation	Risk of serious eye damage
Respiratory or skin sensitization	Respiratory tract irritation
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	Not available data
(STOT) repeated exposure	Not available data

11.2 Information on other hazards

Platinum compounds are generally toxic, although the rate of absorption in the gastrointestinal tract is relatively low. Symptoms of platinum intoxication are liver and kidney damage, hearing impairments and sensitization with allergic manifestations in predisposed people. There is no known physiological role of platinum.

12. ECOLOGICAL INFORMATION

12.1 Toxicity	Not applicable
12.2 Persistence and degradability	Not applicable
12.3 Bioaccumulative potential	Not applicable
12.4 Mobility in soil	Log Kd 1.57
12.5 Results of PBT and vPvB assessment	Not classified

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12.6	Endocrine disrupting properties	No known effects
12.7	Other adverse effects	No known effects
13.	DISPOSAL CONSIDERATIONS	
13.1.	Waste treatment methods	
	Either the mixture or packages must be sent to approved facilities for the disposal of industrial wastes.	
14.	TRANSPORT INFORMATION	
14.1	UN number or ID number	UN2507
14.2	Official UN shipping name	Solid chloroplatinic acid,8,III(E)
14.3	Transport hazard class(es)	8
	ADR/RID/IMDG/ICAO-IATA: Class:	8
	ADR/RID/IMDG/ICAO-IATA: Label:	8
	ADR: Tunnel restriction code	III
	IMDG - EmS:	F-A, S-B
14.4	Packing group	III
14.5	Dangers for the environment	
	ADR/RID/ICAO-IATA:	NO
	IMDG: Marine Contaminant:	NO
14.6	Special precautions for user	
	Transport must be carried out by vehicles authorized for the transport of dangerous goods according to the provisions of the current edition of the A.D.R. Agreement. and the applicable national provisions. Transport must be carried out in the original packaging and, in any case, in packaging which is made of materials which cannot be attacked by the contents, and which are not likely to generate dangerous reactions. Those responsible for loading and unloading dangerous goods must have received appropriate training on the risks presented by the preparation and on any procedures to be adopted in the event of emergency situations.	
14.7	Maritime transport in bulk according to IMO instruments	
	Bulk transport is not foreseen	
15.	REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Applicability
	<i>Reg. (CE) 1907/2006/CE Reach</i>	YES
	<i>Reg. (CE) 1272/2008 CLP and subsequent amendements</i>	YES
	<i>Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"</i>	NO
	<i>Reg. (CE) 850/2004 "Persistent organic pollutants"</i>	NO
	<i>Reg. (CE) 689/2008 "Export and import of hazardous chemicals"</i>	NO
	<i>Substance listed in Annex I of Dir. 2012/18/EU cd Seveso</i>	NO
	<i>Directive 81/2008 Consolidated Act on protection of health and work safety</i>	YES
	<i>Directive 2014/103/UE "Adr"</i>	YES
	<i>Reg. (CE) 1907/2006/CE Reach art. 59 – Candidate List of Substances of Very High Concern (SVHC)</i>	NO
	<i>Reg. (CE) 1907/2006/CE Reach - Annex XIV – Authorisation List</i>	NO
	<i>Reg. (CE) 1907/2006/CE Reach - Annex XVII – Restriction List</i>	Limited use
	https://echa.europa.eu/it/substances-restricted-under-reach	Item 75 (check link)
15.2	Chemical safety assessment	

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A chemical safety assessment was not carried out.

16. OTHER INFORMATION

Changes compared to the previous edition

Modified sections: 1-2-4-5-8-9-10-12-14

Acronym and abbreviation legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

GHS: Globally Harmonized System of Classification and Labeling of Substances

EINECS: European Inventory of Chemical Substances

CAS: Chemical Abstract Service

STA: Acute Toxicity Estimate

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: (very persistent and very bioaccumulative). Very persistent and very bioaccumulative

LD: lethal dose

PNEC: predicted no effect concentration

DNEL: derived no effect level

TLV (ceiling value): threshold limit value

STEL: short-term exposure limit

EU-OEL: European occupational exposure limit

TWA: time-weighted average

EC: effective concentration

NOAEL: no observed adverse effect level

LC: lethal concentration

NOEC: no observed effect concentration

LOEC: lowest observed effect concentration

Bw: body weight

Koc: organic carbon-water partition coefficient

Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances:

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

Adequate training for workers to guarantee the protection of human health and the environment

Training on the chemical risk ex Directive 81/08 Title IX dangerous substances

Training on PPE