

Safety Data Sheet dated 2/11/2023, version 5

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

1.1. Product identifier

Identification of the substance

Trade name: C103 - PT 65R

Trade code: C103

Name: Dihydrogen hexahydroxyplatinate; Hydroxoplatinic acid

CAS number: 51850-20-5

EC number: 257-471-2

REACH: The substance is not subject to registration as it is produced in amounts less than 1 ton/year

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

Recommended use:

Galvanic, base and lab chemistry

1.3. Details of the supplier of the safety data sheet

Company:

CABRO SPA - AREZZO

Road Setteponti 141

52100 - Italy

CABRO SPA

Phone n. +39 0575 984442

Office hours: 9-13 / 14.30-17.30

Competent person responsible for the safety data sheet:

sds@cabro.it

1.4. Emergency telephone number

CABRO SPA

Phone n. +39 0575 984442

Office hours: 9-13 / 14.30-17.30

Single European emergency number: 112

Poison Information Center - 24/24h Foggia Hospital - Phone +39 0881-732326

Poison Information Center - 24/24h Bergamo Hospital - Phone +39 800 883300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, Aquatic Acute 1, Very toxic to aquatic life.

⚠ Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/clothing and eye/face protection.
P337+P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Identification of the substance

Chemical characterization: Dihydrogen hexahydroxyplatinate; Hydroxoplatinic acid

Trade code: C103

CAS number: 51850-20-5

EC number: 257-471-2

Qty	Name	Ident. Number	Classification
100 %	Hydrogen hexahydroxyplatinate(IV)	CAS: 51850-20-5 EC: 257-471-2	⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.

M factor:

M: 1

M (chronic): 1

3.2. Mixtures

N.A.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed
None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale combustion gases

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

Hydrogen hexahydroxyplatinate(IV) - CAS: 51850-20-5

Worker Professional: 310 µg/m³ - Exposure: Human Inhalation - Frequency: Long Term (repeated)

Worker Professional: 0.43 mg/kg bw/day - Exposure: Human Dermal - Frequency: Long Term (repeated)

PNEC Exposure Limit Values

Hydrogen hexahydroxyplatinate(IV) - CAS: 51850-20-5

Target: Fresh Water - Value: 140 ng/L

Target: Marine water - Value: 14 ng/L

Target: Sewage treatment plant - Value: 235 µg/l

Target: Freshwater sediments - Value: 261 µg/kg dw

Target: Marine water sediments - Value: 26.1 µg/kg dw

Target: Soil (agricultural) - Value: 5.23 µg/kg dw

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Solid	--	--
Colour:	Yellow	--	--

Safety Data Sheet

C103 - PT 65R



Odour:	odorless	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	Non-flammable	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	Not Relevant	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	N.A.	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

C103/5

Page n. 5 of 9

- Stable under normal conditions
- 10.3. Possibility of hazardous reactions**
None
- 10.4. Conditions to avoid**
Stable under normal conditions.
- 10.5. Incompatible materials**
None in particular.
- 10.6. Hazardous decomposition products**
None.

SECTION 11: Toxicological information

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

Toxicological information of the substance:

Dihydrogen hexahydroxyplatinate; Hydroxoplatinic acid - CAS: 51850-20-5

- a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
- b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
- c) serious eye damage/irritation
The product is classified: Eye Irrit. 2 H319
- d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
- e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Dihydrogen hexahydroxyplatinate; Hydroxoplatinic acid - CAS: 51850-20-5

The product is classified: Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

Hydrogen hexahydroxyplatinate(IV) - CAS: 51850-20-5

- a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Invertebrates = 20.48-902000 µg/l - Duration h: 48
Endpoint: EC10 - Species: Invertebrates = 276-426 µg/l - Duration h: 48
Endpoint: NOEC - Species: Invertebrates = 14.15-902000 µg/l - Duration h: 48
Endpoint: LC50 - Species: Invertebrates = 157 µg/l - Duration h: 48
Endpoint: LOEC - Species: Invertebrates = 20.88-62 µg/l - Duration h: 48
Endpoint: LC50 - Species: Fish = 25.78-76.55 mg/l - Duration h: 96
Endpoint: NOEC - Species: Fish = 7.07-21 mg/l - Duration h: 96
Endpoint: LOEC - Species: Fish = 15.49-46 mg/l - Duration h: 96

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



14.1. UN number or ID number

ADR-UN Number: 3077
IATA-UN Number: 3077
IMDG-UN Number: 3077

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydrogen hexahydroxyplatinate(IV))
IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydrogen hexahydroxyplatinate(IV))
IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydrogen hexahydroxyplatinate(IV))

14.3. Transport hazard class(es)

ADR-Class: 9
ADR - Hazard identification number: 90
IATA-Class: 9
IATA-Label: 9
IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III

14.5. Environmental hazards

ADR-Environmental Pollutant: Yes
IMDG-Marine pollutant: Marine Pollutant

Most important toxic component: Hydrogen hexahydroxyplatinate(IV)
IMDG-EmS: F-A,
S-F

14.6. Special precautions for user

ADR-Subsidiary hazards: -
ADR-S.P.: 274 335 375 601
ADR-Transport category (Tunnel restriction code): 3 (-)
IATA-Passenger Aircraft: 956
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 956
IATA-S.P.: A97 A158 A179 A197 A215
IATA-ERG: 9L
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category A SW23
IMDG-Segregation: -

14.7. Maritime transport in bulk according to IMO instruments
N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1
Product belongs to category: E1

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the substance.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

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