




Sodium Hexachloroplatinate(IV) Hexahydrate		Pricing >
Linear Formula	Na ₂ PtCl ₆ •6H ₂ O	
Pubchem CID	24846071	
MDL Number	MFCD00149172	
EC No.	240-983-5	
IUPAC Name	disodium; hexachloroplatinum(2-); hexahydrate	
Beilstein/Reaxys No.	N/A	
SMILES	O.O.O.O.O.O.[Na+].[Na+].Cl[Pt-2](Cl)(Cl)(Cl)(Cl)Cl	
Inchl Identifier	InChI=1S/6ClH.2Na.6H2O.Pt/h6*1H;;6*1H2/q;:::2*+1;:::;+4/p-6	
Inchl Key	ZBFQOIBWJITQRI-UHFFFAOYSA-H	
Signal Word	Danger	
Hazard Statements	H290-H301-H317-H318-H334	
Hazard Codes	C, T+	
Precautionary Statements	P284-P261-P301+P310-305+P351+P338-P405-P501	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	UN3288 6.1/PG III	
GHS Pictograms	GHS05 Corrosive  GHS06 Skull and Crossbones  GHS08 Health Hazard 	

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SAFETY DATA SHEET

Date Accessed: 04/24/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #19583-77-8

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in
accordance with 29 CFR 1910 (OSHA HCS)

GHS06 Skull and crossbones

Acute Tox. 3

H301 Toxic if swallowed.

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.

Eye Dam. 1

H318 Causes serious eye damage.

GHS07

Skin Sens. 1

H317 May cause an allergic skin reaction.

Hazards not otherwise classified

No information known.

Label elements

GHS label elements

The product is classified and labeled in accordance
with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS05 GHS06 GHS08

Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

H301 Toxic if swallowed.

H318 Causes serious eye damage.

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

H317 May cause an allergic skin reaction.

Precautionary statements

P284

[In case of inadequate ventilation] wear respiratory

protection.

P261

Avoid breathing dust/fume/gas/mist/vapors/spray

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405

Store locked up.

P501

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

WHMIS classification

D1B - Toxic material causing immediate and serious toxic effects

D2A - Very toxic material causing other toxic effects

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 2

Flammability = 0

Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Substances

CAS# Description:

19583-77-8 Sodium hexachloroplatinate(IV) hexahydrate

Identification number(s):

EC number: 240-983-5

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

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

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing
Do not induce vomiting; immediately call for medical help.
Information for doctor
Most important symptoms and effects, both acute and delayed
Toxic if swallowed.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents
Product is not flammable. Use fire-fighting measures that suit the surrounding fire.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Sodium oxide
Hydrogen chloride (HCl)
Platinum oxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning

up:
Dispose of contaminated material as waste according to section 13.
Prevention of secondary hazards:
No special measures required.
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.
Protective Action Criteria for Chemicals
PAC-1:
Substance is not listed.
PAC-2:
Substance is not listed.
PAC-3:
Substance is not listed.

SECTION 7. HANDLING AND STORAGE

Handling
Precautions for safe handling
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Prevent formation of dust.
Information about protection against explosions and fires:
The product is not flammable
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles:
No special requirements.
Information about storage in one common storage facility:
Store away from oxidizing agents.
Store away from metals.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Specific end use(s)
No further relevant information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:
Properly operating chemical fume hood designed for

hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

19583-77-8 Sodium hexachloroplatinate(IV) hexahydrate (100.0%)

PEL (USA) Long-term value: 0.002 mg/m³ as Pt

Additional information:

No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Penetration time of glove material (in minutes)

Not determined

Eye protection:

Tightly sealed goggles

Safety glasses with side shields / NIOSH (US) or EN 166(EU)

Body protection:

Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:
Form: Crystalline
Odor: Odorless
Odor threshold: Not determined.
pH-value: Not applicable.
Change in condition
Melting point/Melting range: 110 °C (230 °F) (anhyd)
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined
Flammability (solid, gaseous)
Not determined.
Ignition temperature:
Not determined
Decomposition temperature: Not determined
Auto igniting: Not determined.
Danger of explosion: Not determined.
Explosion limits:
Lower: Not determined
Upper: Not determined
Vapor pressure: Not applicable.
Density at 20 °C (68 °F): 2.5 g/cm³ (20.863 lbs/gal)
Relative density
Not determined.
Vapor density
Not applicable.
Evaporation rate
Not applicable.
Solubility in / Miscibility with Water at 15 °C (59 °F):
660 g/l
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
dynamic: Not applicable.
kinematic: Not applicable.
Other information
No further relevant information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No information known.
Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored
according to specifications.
Possibility of hazardous reactions
Reacts with strong oxidizing agents
Conditions to avoid
No further relevant information available.
Incompatible materials:
Oxidizing agents
Metals
Hazardous decomposition products:

Sodium oxide
Hydrogen chloride (HCl)
Platinum oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Toxic if swallowed.

LD/LC50 values that are relevant for classification:

No data

Skin irritation or corrosion:

May cause irritation

Eye irritation or corrosion:

Causes serious eye damage.

Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Germ cell mutagenicity:

No effects known.

Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity:

No effects known.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Subacute to chronic toxicity:

No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No further relevant information available.

Persistence and degradability

No further relevant information available.

Bioaccumulative potential

No further relevant information available.

Mobility in soil

No further relevant information available.

Ecotoxicological effects:

Remark:

Very toxic for aquatic organisms

Additional ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

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.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment.

Very toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

Other adverse effects

No further relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number

DOT, IMDG, IATA

UN3288

UN proper shipping name

DOT

Toxic solid, inorganic, n.o.s. (Sodium hexachloroplatinate(IV) hexahydrate)

ADR

3288 Toxic solid, inorganic, n.o.s. (Sodium hexachloroplatinate(IV) hexahydrate)

IMDG, IATA

TOXIC SOLID, INORGANIC, N.O.S. (Sodium

hexachloroplatinate(IV) hexahydrate)
Transport hazard class(es)
DOT
Class
6.1 Toxic substances
Label
6.1
ADR
Class
6.1 (T5) Toxic substances
Label
6.1
IMDG, IATA
Class
6.1 Toxic substances
Label
6.1
Packing group
DOT, ADR, IMDG, IATA
III
Environmental hazards:
Marine pollutant (IMDG):
No
Special precautions for user
Warning: Toxic substances
EMS Number: F-A,S-A
Stowage Category
A
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
Not applicable.
Transport/Additional information:
DOT
Quantity limitations
On passenger aircraft/rail: 100 kg
On cargo aircraft only: 200 kg
Marine Pollutant (DOT):
No
IMDG
Limited quantities (LQ)
5 kg
Excepted quantities (EQ)
Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g
UN "Model Regulation":
UN 3288 TOXIC SOLID, INORGANIC, N.O.S.
(SODIUM HEXACHLOROPLATINATE(IV)
HEXAHYDRATE), 6.1, III

SECTION 15. REGULATORY

INFORMATION

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

GHS label elements

The product is classified and labeled in accordance
with 29 CFR 1910 (OSHA HCS)

Hazard pictograms

GHS05

GHS06

GHS08

Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

H301 Toxic if swallowed.

H318 Causes serious eye damage.

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

H317 May cause an allergic skin reaction.

Precautionary statements

P284

[In case of inadequate ventilation] wear respiratory
protection.

P261

Avoid breathing dust/fume/gas/mist/vapors/spray

P301+P310

IF SWALLOWED: Immediately call a POISON
CENTER/ doctor.

P305+P351+P338 If in eyes: Rinse cautiously with
water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.

P405

Store locked up.

P501

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

National regulations

All components of this product are listed in the U.S.
Environmental Protection Agency Toxic Substances
Control Act Chemical substance Inventory.

All components of this product are listed on the
Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:
For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use)
Substance is not listed.
Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
