Dichloro-1,2-diaminocyclohexane platinum complex (cas 52691-24-4) MSDS

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

1.1 Product identifiers

Product name: Dichloro(1,2-diaminocyclohexane)platinum(II)
Product Number: 404322
Brand: 52691-24-4

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

Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
- Acute toxicity, Inhalation (Category 4)
- Acute toxicity, Dermal (Category 4)
- Acute toxicity, Oral (Category 4)
- Carcinogenicity (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Harmful by inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Signal word: Warning
Hazard statement(s):
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
Precautionary statement(s):
P280 Wear protective gloves/ protective clothing.

Supplemental Hazard Statements: none

Hazard symbol(s):

R-phrase(s):
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R40 Limited evidence of a carcinogenic effect.

S-phrase(s):
S22 Do not breathe dust.
S36 Wear suitable protective clothing.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: (1,2-Diaminocyclohexane)platinum(II) chloride
Formula: C6H14Cl2N2Pt
Molecular Weight: 380.17 g/mol

Component: Dichloro(1,2-diaminocyclohexane)platinum(II)
CAS-No.: 52691-24-4
4. **FIRST AID MEASURES**

4.1 **Description of first aid measures**

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 **Most important symptoms and effects, both acute and delayed**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 **Indication of any immediate medical attention and special treatment needed**
No data available

5. **FIREFIGHTING MEASURES**

5.1 **Extinguishing media**

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 **Special hazards arising from the substance or mixture**
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 **Advice for firefighters**
Wear self-contained breathing apparatus for fire fighting if necessary.

5.4 **Further information**
No data available

6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 **Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 **Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 **Reference to other sections**
For disposal see section 13.

7. **HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 **Specific end uses**
No data available

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters**
Components with workplace control parameters

8.2 **Exposure controls**

**Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

Eye/face protection
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance  Form: powder
  Colour: yellow
- b) Odour  no data available
- c) Odour Threshold  no data available
- d) pH  no data available
- e) Melting point/freezing point  Melting point/range: 280 ??C - dec.
- f) Initial boiling point and boiling range  no data available
- g) Flash point  no data available
- h) Evaporation rate  no data available
- i) Flammability (solid, gas)  no data available
- j) Upper/lower flammability or explosive limits  no data available
- k) Vapour pressure  no data available
- l) Vapour density  no data available
- m) Relative density  no data available
- n) Water solubility  no data available
- o) Partition coefficient: n-octanol/water  no data available
- p) Autoignition temperature  no data available
- q) Decomposition temperature  no data available
- r) Viscosity  no data available
- s) Explosive properties  no data available
- t) Oxidizing properties  no data available

9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available
10.5 Incompatible materials
   Strong oxidizing agents

10.6 Hazardous decomposition products
   Other decomposition products - no data available

11. **TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects
   
   **Acute toxicity**
   no data available

   **Skin corrosion/irritation**
   no data available

   **Serious eye damage/eye irritation**
   no data available

   **Respiratory or skin sensitization**
   no data available

   **Germ cell mutagenicity**
   no data available

   **Carcinogenicity**
   Limited evidence of carcinogenicity in animal studies

   **Reproductive toxicity**
   no data available

   **Specific target organ toxicity - single exposure**
   no data available

   **Specific target organ toxicity - repeated exposure**
   no data available

   **Aspiration hazard**
   no data available

   **Potential health effects**
   
   **Inhalation**
   Harmful if inhaled. May cause respiratory tract irritation.

   **Ingestion**
   Harmful if swallowed.

   **Skin**
   Harmful if absorbed through skin. May cause skin irritation.

   **Eyes**
   May cause eye irritation.

   **Signs and Symptoms of Exposure**
   To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

   **Additional Information**
   RTECS: TP2275974

12. **ECOLOGICAL INFORMATION**

12.1 Toxicity
   no data available

12.2 Persistence and degradability
   no data available

12.3 Bioaccumulative potential
   no data available

12.4 Mobility in soil
   no data available

12.5 Results of PBT and vPvB assessment
   no data available

12.6 Other adverse effects
   no data available

13. **DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods
   
   **Product**
   Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -

14.4 Packaging group
ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further information
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 this document is based on the resent 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. guidechem 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.