

## Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

### Product Identifier:

**Identification as on the label/Trade name:** Cisplatin, Enriched Cisplatin.

**Molecular weight:** 300.05

**Chemical formula:**  $\text{Pt}(\text{NH}_3)_2\text{Cl}_2$

**Synonyms:** cis-Diammineplatinum(II) dichloride, Cisplatinum, cis-Dichlorodiammine platinum(II), cis-Platinum(II) diammine dichloride.

### Details of the supplier of the Safety Data Sheet:

Neonest AB  
Storgatan 70C, Solna  
SE-17152  
Sweden

### Contact details:

+46-76-219-9731

### 24-hour Emergency Contact:

Swedish Poisons Centre  
Phone: 112 - Ask for Poisons Information, 112 – begär Giftinformation.

### Other International Contacts:

CHEMTREC 24-hour: +1-703-741-5500 (US + Worldwide)  
NHS: 111 (UK)  
Charite: +49 30 450 531 000 (Netherlands)  
INTCF: +34 917689800 (Spain)  
CapTv: +33 1 40 05 48 48 (France)

## Section 2: Hazards Identification

### Classification of the substances or mixture:

**The mixture is classified according to:** Regulation EC 1272/2008 [EU-GHS/CLP]

### **Hazard classes/Hazard categories:**

Acute Toxicity (Category 2)  
Eye Damage (Category 1)  
Carcinogenic (Category 1B)

### **Hazard statement:**

H300  
H318  
H350

### Label elements:

#### **Hazard pictograms:**



**Signal Words:** Danger.

**Hazard Statements:**

H300 Fatal if swallowed.

H318 Causes serious eye damage.

H350 May cause cancer.

**Precautionary Statements:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/national regulations.

**Other hazards:** None known.

### Section 3: Composition/Information on Ingredients

**Substance/Mixture:** Substance.

**Ingredients:**

Substance name (IUPAC/EC)	CAS-No.	Molecular weight	Concentration % by weight	Classification EC1272/2008	
	EC-No.				
Cisplatin	15663-27-1	300.05	>99%	Acute Tox. 2	H300
	239-733-8			Eye Dam. 1	H318
				Carc. 1B	H350

For explanation of abbreviations see Section 16.

### Section 4: First-Aid Measures

**Description of first aid measures:**

**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. Take victim immediately to hospital. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

**Most important symptoms and effects, both acute and delayed:**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically. Show this safety data sheet to a physician or emergency room.

## Section 5: Fire-Fighting Measures

### Extinguisher media:

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

**Unsuitable extinguishing media:** None known.

**Special hazards arising from the mixture:** Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas.

**Advice for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** No data available.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures:

**Personal precautions:** Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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

### Methods for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### Reference to other sections:

For disposal see section 13.

## Section 7: Handling and Storage

### Precautions for safe handling:

**Advice on safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed.

**Hygiene measures:** Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including incompatibilities:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature 2 - 8 °C. Storage class (TRGS 510): Combustible solids, toxic.

**Specific end use(s):** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## Section 8: Exposure Controls/Personal Protection

### Control parameters:

**Occupational exposure limits:** No data available.

### Exposure controls:

**Appropriate engineering controls:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Individual protection measures, such as personal protective equipment:

**Eye/face protection:** Face shield and safety glasses 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 (EN 143) respirator cartridges as a backup to engineering controls. If the full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

**Appearance (form):** Solid (powder).

**Colour:** Yellow.

**Odour:** No data available.

**Odour threshold:** No data available.

**Molecular Weight:** 300.05

**pH (concentration):** No data available.

**Melting point/range (°C):** 270°C

**Boiling point/range (°C):** No data available.

**Freezing point (°C):** No data available.

**Flash point (°C):** Not applicable.

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**Ignition temperature (°C):** No data available.

**Upper/lower flammability/explosive limits:** No data available.

**Vapour pressure (20 °C):** No data available.

**Vapour density:** No data available.

**Relative density (25 °C):** 3.7 g/cm<sup>3</sup>

**Water solubility (g/L) at 20 °C:** <0.1 g/100 mL

**n-Octanol/Water partition coefficient:** No data available.

**Auto-ignition temperature:** No data available.

**Decomposition temperature:** No data available.

**Viscosity, dynamic (mPa s):** No data available.

**Explosive properties:** The substance or mixture is not classified as explosive.

**Oxidising properties:** The substance or mixture is not classified as oxidizing.

## Section 10: Stability and Reactivity

**Reactivity:** No data available.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** No data available.

**Incompatible materials:** Strong oxidizing agents.

**Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions: Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas.

## Section 11: Toxicological Information

### Information on toxicological effects:

**Acute toxicity:** LD50 Oral - Rat - 25.8 mg/kg (Cisplatin)

### Classification according to GHS (1272/2008/EG, CLP)

**Skin corrosion/irritation:**

Not classified based on available information.

**Serious eye damage/eye irritation:**

Not classified based on available information.

**Respiratory or skin sensitisation:**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Germ cell mutagenicity:**

Not classified based on available information.

**Carcinogenicity:**

Possible human carcinogen. IARC: 2A - Group 2A: Probably carcinogenic to humans

**Reproductive toxicity:**

Not classified based on available information.

**Specific target organ toxicity – single exposure (STOT):**

Not classified based on available information.

**Specific target organ toxicity (STOT) – repeated exposure:**

Not classified based on available information.

**Aspiration toxicity:**

Not classified based on available information.

## Section 12: Ecological Information

**Toxicity:** No data available.

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT& vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**Other adverse effects:** No data available.

## Section 13: Disposal Considerations

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

**Contaminated packaging:** Dispose of as unused product.

## Section 14: Transport Information

**ADR/RID:**

**Proper Shipping Name:** TOXIC SOLID, INORGANIC, N.O.S. (Cisplatin).

**Hazard Class:** 6.1

**Hazard Label:**



**UN Number:** 3288

**Packing Group:** II

**IATA:**

**Proper Shipping Name:** TOXIC SOLID, INORGANIC, N.O.S. (Cisplatin).

**Hazard Class:** 6.1

**UN Number:** 3288

**Packing Group:** II

**IMDG:**

**Proper Shipping Name:** TOXIC SOLID, INORGANIC, N.O.S. (Cisplatin).

**Hazard Class:** 6.1

**UN Number:** 3288

**Packing Group:** II

## Section 15: Regulatory Information

**EU regulations:**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**  
Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**  
Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**  
Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**  
Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**  
Not listed.

**Authorisations:**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Restrictions on use:**

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use**

Not regulated.

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not regulated.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding.**

Not regulated.

**Other EU regulations:**

**Directive 2012/18/EU on major accident hazards involving dangerous substances**

Not listed.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.**

Always applicable.

**Directive 94/33/EC on the protection of young people at work**

Not listed.

**Other regulations:** The product is classified and labelled in accordance with EC directives or respective national laws.

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

**Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

## Section 16: Other Information

**List of abbreviations:**

ACGIH American Conference of Governmental Industrial Hygienists

ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road

ALARA As Low As Is Reasonably Achievable

AMU Atomic Mass Unit

ANSI American National Standards Institute

BLS Basic Life Support

CAM Continuous Air Monitor

CAS Chemical Abstracts Service (division of the American Chemical Society)

CEN European Committee for Standardization

CERCLA Comprehensive Environmental Response Compensation and Liability Act

CLP Classification, Labelling and Packaging (European Union)

CPR Controlled Products Regulations (Canada)

CWA Clean Water Act (USA)

DAC Derived Air Concentration (USA)

DOE United States Department of Energy (USA)  
DOT United States Department of Transportation (USA)  
DSL Domestic Substances List (Canada)  
EC50 Half Maximal Effective Concentration  
EINECS European Inventory of Existing Commercial Chemical Substances  
EHS Environmentally Hazardous Substance  
ELINCS European List of Notified Chemical Substances  
EMS Emergency Response Procedures for Ships Carrying Dangerous Goods  
EPA Environmental Protection Agency (USA)  
EPCRA Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986  
GHS Globally Harmonized System  
HMIS Hazardous Materials Identification System (USA)  
IARC International Agency for Research on Cancer  
IATA International Air Transport Association  
IBC Intermediate Bulk Containers  
ICAO International Civil Aviation Organization  
IDLH Immediately Dangerous to Life or Health  
IMDG International Maritime Code for Dangerous Goods  
LC50 Lethal concentration, 50 percent  
LD50 Lethal dose, 50 percent  
LDLO Lethal Dose Low  
LOEC Lowest-Observed-Effective Concentration  
MARPOL International Convention for the Prevention of Pollution from Ships  
MSHA Mine Safety and Health Administration (USA)  
NCRP National Council on Radiation Protection & Measurements (USA)  
NDSL Non-Domestic Substances List (Canada)  
NFPA National Fire Protection Association (USA)  
NIOSH National Institute for Occupational Safety and Health (USA)  
NOEC No Observed Effect Concentration  
N.O.S. Not Otherwise Specified  
NRC Nuclear Regulatory Commission (USA)  
NTP National Toxicology Program (USA)  
OSHA Occupational Safety and Health Administration (USA)  
PBT Persistent Bioaccumulative and Toxic Chemical  
PEL Permissible Exposure Limit  
PIH Poisonous by Inhalation Hazard  
RCRA Resource Conservation and Recovery Act (USA)  
RCT Radiation Control Technician  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)  
RID Regulations Concerning the International Transport of Dangerous Goods by Rail  
RTECS Registry of Toxic Effects of Chemical Substances  
SARA Superfund Amendments and Reauthorization Act (USA)  
TDG Transportation of Dangerous Goods (Canada)  
TIH Toxic by Inhalation Hazard  
TLV Threshold Limit Value  
TPQ Threshold Planning Quantity  
TSCA Toxic Substances Control Act  
TWA Time Weighted Average



UN United Nations (Number)  
VOC Volatile Organic Compound  
vPvB Very Persistent Very Bioaccumulative Chemical  
WGK Wassergefährdungsklassen (Germany: Water Hazard Classes)  
WHMIS Workplace Hazardous Materials Information System

**References:**

Not available.

**Full text of any H-statements not written out in full under Sections 2 to 15:**

H300 Fatal if swallowed.

H318 Causes serious eye damage.

H350 May cause cancer.

**Revision information:**

None.

**Training information:**

Follow training instructions when handling this material.

**Further Information:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.