

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

### Product Identifier:

**Identification as on the label/Trade name:** Platinum Metal Powder; Platinum.

**Molecular weight:** 195.08

**Chemical formula:** Pt

**Synonyms:** None.

### 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:**

Flammable Solid (Category 1)

### **Hazard statement:**

H228

### Label elements:

**Hazard pictograms:**



**Signal Words:** Danger.

**Hazard Statements:**

H228 Flammable solid.

**Precautionary Statements:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P370 + P378: In case of fire: Use dry powder or dry sand to extinguish.

**Other hazards:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Section 3: Composition/Information on Ingredients**

**Substance/Mixture:** Substance.

**Ingredients:**

Substance name (IUPAC/EC)	CAS-No.	Concentration % by weight	Classification EC1272/2008
	EC-No.		
Platinum	7440-06-4	>99.9%	Not classified as hazardous
	231-116-1		

For explanation of abbreviations see Section 16.

**Section 4: First-Aid Measures****Description of first aid measures:**

**Ingestion:** No specific first aid required. Avoid dust formation. Wash out mouth with water. Do NOT induce vomiting. If unwell seek medical advice/attention.

**Inhalation:** No specific first aid required. Avoid dust formation. Remove to fresh air. If not breathing, give artificial respiration. If unwell seek medical advice/attention.

**Skin:** No specific first aid required. Avoid dust formation. Remove contaminated clothing, and wash affected areas thoroughly with soap and water. If skin irritation or rash occurs: seek medical advice/attention.

**Eyes:** No specific first aid required. Avoid dust formation. Irrigate eyeball thoroughly with water for at least 10 minutes. If discomfort persists get medical attention.

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed:** None known.

**Section 5: Fire-Fighting Measures****Extinguisher media:**

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

**Special risks:** Flammable. Use water spray to cool unopened containers.

**Special protective equipment for firefighting:** Wear protective equipment if required for other materials within the immediate vicinity.

## Section 6: Accidental Release Measures

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

Use personal protective equipment as required. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

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

### Methods and materials for containment and cleaning up:

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

## Section 7: Handling and Storage

### Precautions for safe handling:

No Specific requirements. Platinum powder like other fine powders should be handled using established procedures that minimise the production of inhaled dust. Wear appropriate nationally approved respirators if handling is likely to cause the generation of inhalable dust. Wear suitable protective clothing and gloves. Contaminated work clothing should not be allowed out of the workplace. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition. **NO SMOKING.**

### Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Local regulations should be followed regarding the storage of this product.

## Section 8: Exposure Controls/Personal Protection

### Control parameters:

#### Occupational exposure limits:

Component	CAS-No.	Value	Control parameters	Basic
Platinum	7440-06-4		TWA 1 mg/m <sup>3</sup>	USA - ACGIH Threshold Limit Values (TLV)
<i>Remarks: Upper respiratory tract irritation / asthma</i>				
			TWA 1 mg/m <sup>3</sup>	USA - OCHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
			TWA 1 mg/m <sup>3</sup>	USA - NIOSH Recommended Exposure Limits
			TWA 0.0020 mg/m <sup>3</sup>	USA - Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

Platinum (dust): UK WEL (mg/m<sup>3</sup>) 5, ACGIH TLV-TWA (mg/m<sup>3</sup>) 1

Soluble Platinum: UK WEL (mg/m<sup>3</sup>) 1, ACGIH TLV-TWA (mg/m<sup>3</sup>) 0.002.

**Exposure controls:**

**Appropriate engineering controls:** Mechanical extraction ventilation may be required if user operations change it to other physical or chemical forms, whether as end products, intermediates or fugitive emissions, which are inhalable. Maintain airborne dust levels as low as possible. Wash hands before breaks and at the end of workday.

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

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a fullface 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).

**Eye 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).

**Hand & Skin Protection:** The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash skin thoroughly after handling and before eating, drinking or smoking. Change contaminated clothing frequently. Launder clothing and gloves as needed.

**Body Protection:**

Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**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:** Grey.

**Odour:** Odourless.

**Odour threshold:** No data available.

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

**Melting point/range (°C):** 1,768 °C

**Boiling point/range (°C):** 3,825 °C

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

**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):** 21.5

**Water solubility (g/L) at 20 °C:** No data available.

**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:** Stable under normal conditions.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Stable under normal conditions.

**Conditions to avoid:** Heat, flames and sparks.

**Incompatible materials:** Strong oxidizing agents, Alcohols.

**Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known. In the event of fire: see section 5.

## Section 11: Toxicological Information

### Information on toxicological effects:

Not classified based on available information.

### 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:**

Not classified based on available information.

#### **Germ cell mutagenicity:**

Not classified based on available information.

#### **Carcinogenicity:**

Not classified based on available information.

#### **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.

#### **Chronic Exposure**

##### *Carcinogenicity - Rat - Implant*

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

##### *Carcinogenicity - Mouse - Implant*

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application.

##### *IARC*

No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC

#### **Additional Information :**

RTECS: TP2160000

## 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:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.**Other adverse effects:** No data available.

In solid form this material poses no special environmental problems. Metal powder or dust may have significant impact on air and water quality. Emission, spills and released to the environment should be controlled immediately.

## Section 13: Disposal Considerations

### Waste treatment methods:

**Product:**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national, federal, state and local environmental regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Burn in a chemical incinerator equipped with an afterburner and scrubber, but exert extra care in igniting, as this material is highly flammable. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging:**

Dispose of as unused product.

## Section 14: Transport Information

**ADR/RID:****Proper Shipping Name:** METAL POWDER, FLAMMABLE, N.O.S. (Platinum).**Hazard Class:** 4.1**UN Number:** 3089**Packing Group:** II**Hazard Labels:****IMDG:****Proper Shipping Name:** METAL POWDER, FLAMMABLE, N.O.S. (Platinum).**Hazard Class:** 4.1**UN Number:** 3089**EMS No:** F-G, S-G**Packing Group:** II**Marine pollutant:** No

**IATA:**

**Proper Shipping Name:** METAL POWDER, FLAMMABLE, N.O.S.

**Hazard Class:** 4.1

**UN Number:** 3089

**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.

**Additional Information:****SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**SARA 311/312 Hazards:** Fire Hazard, Chronic Health Hazard.**Massachusetts Right to Know Components:** Platinum / CAS No. 7440-06-4 / Revision Date 1993-04-24**Pennsylvania Right to Know Components:** Platinum / CAS No. 7440-06-4 / Revision Date 1993-04-24**New Jersey Right to Know Components:** Platinum / CAS No. 7440-06-4 / Revision Date 1993-04-24**California Prop. 65 Components:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.**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:**

None.

**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.

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