Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Di-μ-chlorodichlorobis(ethylene)diplatinum(II)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product code</strong></td>
<td>042-31591, 048-31593</td>
</tr>
<tr>
<td><strong>CAS No</strong></td>
<td>12073-36-8</td>
</tr>
<tr>
<td><strong>Formula</strong></td>
<td>C4H8Cl4Pt2</td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td>Wako Pure Chemical Industries, Ltd.</td>
</tr>
<tr>
<td></td>
<td>1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan</td>
</tr>
<tr>
<td></td>
<td>Phone: +81 (0)6-6203-3741</td>
</tr>
<tr>
<td></td>
<td>Fax: +81 (0)6-6201-5964</td>
</tr>
<tr>
<td><strong>Supplier</strong></td>
<td>Wako Pure Chemical Industries, Ltd.</td>
</tr>
<tr>
<td></td>
<td>1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan</td>
</tr>
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<td>Phone: +81 (0)6-6203-3741</td>
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<td></td>
<td>Fax: +81 (0)6-6201-5964</td>
</tr>
<tr>
<td><strong>Emergency telephone number</strong></td>
<td>+81-6-6203-3741 / +81-3-3270-8571</td>
</tr>
<tr>
<td><strong>Recommended uses and restrictions on use</strong></td>
<td>For research purposes</td>
</tr>
</tbody>
</table>

Section 2: HAZARDS IDENTIFICATION

**GHS classification**

**Classification of the substance or mixture**
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2A

**Pictograms**

**Signal word** Warning

**Hazard statements**
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation

**Precautionary statements-(Prevention)**
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary statements-(Response)**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation occurs: Get medical advice/attention
- Take off contaminated clothing and wash before reuse

**Precautionary statements-(Storage)**
- Not applicable
Precautionary statements-(Disposal)
- Not applicable

Others
Other hazards Not available

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### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>Molecular weight</th>
<th>ENCS</th>
<th>ISHL No.</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Di-μ-chlorodichlorobis(ethylene)diplatinum(II)</td>
<td>95.0</td>
<td>588.09</td>
<td>N/A</td>
<td>N/A</td>
<td>12073-36-8</td>
</tr>
</tbody>
</table>

Impurities and/or Additives: Not applicable

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### Section 4: FIRST AID MEASURES

**Inhalation**
- Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**
- Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**
- Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**
- Use personal protective equipment as required.

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### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**
- Water spray (fog), Carbon dioxide (CO2), Foam, Extinguishing powder, Sand

**Unsuitable extinguishing media**
- No information available

**Special extinguishing method**
- No information available

**Specific hazards arising from the chemical product**
- Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Protection of fire-fighters**
- Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

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### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**
- For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.
Environmental precautions
To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminent and methods and materials for cleaning up
Sweep up and gather scattered particles, and collect it in an empty airtight container.

Recovery, neutralization
No information available

Secondary disaster prevention measures
Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling
Technical measures
Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

Precautions
Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Storage
Safe storage conditions
Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Packed with an inert gas.

Safe packaging material
Glass

Incompatible substances
Strong oxidizing agents

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls
In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>JSOH (Japan)</th>
<th>ISHL (Japan)</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di-μ-chlorodichlorobis(ethylene) diplatinum(II)</td>
<td>TWA: 0.001 mg/m³ OEL</td>
<td>N/A</td>
<td>TWA: 0.002 mg/m³ Pt</td>
</tr>
</tbody>
</table>

Personal protective equipment

<table>
<thead>
<tr>
<th>Respiratory protection</th>
<th>Hand protection</th>
<th>Eye protection</th>
<th>Skin and body protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust mask</td>
<td>Protection gloves</td>
<td>protective eyeglasses or chemical safety goggles</td>
<td>Long-sleeved work clothes</td>
</tr>
</tbody>
</table>

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form
Color
reddish yellow ,
Appearance
crystalline powder - powder
Odor
No data available
pH
No data available
Melting point/freezing point  No data available
Boiling point, initial boiling point and boiling range  No data available
Flash point  No data available
Evaporation rate:  No data available
Flammability (solid, gas):  No data available
Upper/lower flammability or explosive limits
   Upper :  No data available
   Lower :  No data available
Vapour pressure  No data available
Vapour density  No data available
Specific Gravity / Relative density  No data available
Solubilities  No data available
n-Octanol/water partition coefficient:(log Pow)  No data available
Auto-ignition temperature:  No data available
Decomposition temperature:  No data available
Viscosity (coefficient of viscosity)  No data available
Dynamic viscosity  No data available

Section 10: STABILITY AND REACTIVITY

Stability
   Stability  May be altered by light.
   Reactivity  No data available
Hazardous reactions
   None under normal processing
Conditions to avoid
   Extremes of temperature and direct sunlight
Incompatible materials
   Strong oxidizing agents
Hazardous decomposition products
   Carbon monoxide (CO), Carbon dioxide (CO2), Halides, Metal oxides

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity  No data available
Skin irritation/corrosion  No data available
Serious eye damage/ irritation  No data available
Respiratory or skin sensitization  No data available
Reproductive cell mutagenicity  No data available
Carcinogenicity  No data available
Reproductive toxicity  No data available
STOT-single exposure  No data available
STOT-repeated exposure  No data available
Aspiration hazard  No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity  No information available
Other data: No data available

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility in soil: No information available
Hazard to the ozone layer: No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated container and contaminated packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

ADR/RID
- Not regulated
  UN number
  Proper shipping name:
  UN classification
  Subsidiary hazard class
  Packing group
  Marine pollutant: Not applicable

IMDG
- Not regulated
  UN number
  Proper shipping name:
  UN classification
  Subsidiary hazard class
  Packing group
  Marine pollutant (Sea): Not applicable
  Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No information available

IATA
- Not regulated
  UN number
  Proper shipping name:
  UN classification
  Subsidiary hazard class
  Packing group
  Environmentally Hazardous Substance: Not applicable

Section 15: REGULATORY INFORMATION

International Inventories
EINECS/ELINCS: Listed
TSCA: -

Japanese regulations
Fire Service Act: Not applicable
Poisonous and Deleterious Substances Control Law: Not applicable
Industrial Safety and Health Act: Not applicable
Regulations for the carriage and transport of dangerous goods: Not applicable
storage of dangerous goods in ship
Civil Aeronautics Law Not applicable
Pollutant Release and Transfer Register Law Not applicable
Export Trade Control Order Not applicable

Section 16: OTHER INFORMATION

Key literature references and sources for data etc.
NITE: National Institute of Technology and Evaluation (JAPAN)
http://www.safe.nite.go.jp/japan/db.html
IATA dangerous Goods Regulations
RTECS: Registry of Toxic Effects of Chemical Substances
Japan Industrial Safety and Health Association GHS Model SDS
Dictionary of Synthetic Organic Chemistry, SSOJ, Koudansha Scientific Co.Ltd.
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
etc

Disclaimer
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, 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.
GHS Classification is according to JIS Z7252(2014). *JIS: Japanese Industrial Standards

End of Safety Data Sheet