SAFETY DATA SHEET

According to JIS Z 7253:2012
Revision Date 20-Sep-2019
Version 7.02

Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>Palladium-Activated Carbon Ethylenediamine Complex (Pd 3.5~6.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>163-21441, 169-21443, 161-21442</td>
</tr>
<tr>
<td>CAS RN</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Manufacturer
FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
Fax: +81-6-6203-5964

Supplier
FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
Fax: +81-6-6203-2029

Emergency telephone number
+81-6-6203-3741 / +81-3-3270-8571

Recommended uses and restrictions on use
For research purposes

Section 2: HAZARDS IDENTIFICATION

GHS classification
Classification of the substance or mixture
Skin corrosion/irritation Category 1

Pictograms

Signal word
Danger

Hazard statements
H314 - Causes severe skin burns and eye damage

Precautionary statements-(Prevention)
• Do not breathe dust/fume/gas/mist/vapors/spray
• Wash face, hands and any exposed skin thoroughly after handling
• Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements-(Response)
• Immediately call a POISON CENTER or doctor/physician
• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
• IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
• Wash contaminated clothing before reuse.
• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
• IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary statements-(Storage)
• Store locked up.

Precautionary statements-(Disposal)
• Dispose of contents/container to an approved waste disposal plant

Others
Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>Molecular weight</th>
<th>ENCS</th>
<th>ISHL No.</th>
<th>CAS RN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palladium-Activated Carbon Ethylenediamine Complex</td>
<td>3.5-6.5(as Pd)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A-16-2144-1</td>
</tr>
</tbody>
</table>

Impurities and/or Additives: Not applicable

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.

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.

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.

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**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, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Packed with an inert gas.

**Safe packaging material**
Glass

**Incompatible substances**
Strong oxidizing agents

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**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**
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Personal protective equipment**

**Respiratory protection**
Dust mask

**Hand protection**
Protection gloves

**Eye protection**
Protective eyeglasses or chemical safety goggles

**Skin and body protection**
Long-sleeved work clothes

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

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**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Form**

**Color**
black

**Appearance**
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
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, Moisture

Incompatible materials
Strong oxidizing agents

Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NOₓ), 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**
- **UN number**: UN3259
- **Proper shipping name**: Amines, solid, corrosive, n.o.s. (Palladium-Activated Carbon Ethylenediamine Complex)
- **UN classification**: 8
- **Subsidiary hazard class**: III
- **Packing group**: III
- **Marine pollutant**: Not applicable

**IMDG**
- **UN number**: UN3259
- **Proper shipping name**: Amines, solid, corrosive, n.o.s. (Palladium-Activated Carbon Ethylenediamine Complex)
- **UN classification**: 8
- **Subsidiary hazard class**: III
- **Packing group**: III
- **Marine pollutant (Sea)**: Not applicable
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**: No information available

**IATA**
- **UN number**: UN3259
- **Proper shipping name**: Amines, solid, corrosive, n.o.s. (Palladium-Activated Carbon Ethylenediamine Complex)
- **UN classification**: 8
- **Subsidiary hazard class**: III
- **Packing group**: III
- **Environmentally Hazardous Substance**: Not applicable

### Section 15: REGULATORY INFORMATION

**International Inventories**
- **EINECS/ELINCS**: -
- **TSCA**: -

**Japanese regulations**
- **Fire Service Act**: Not applicable
- **Poisonous and Deleterious Substances Control Law**: Not applicable
- **Industrial Safety and Health Act**: Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table No.9) No.83
- **Regulations for the carriage and storage of dangerous goods in ship**: Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
- **Civil Aeronautics Law**: Corrosive Substances (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)
- **Marine Pollution Prevention Law**: Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y Class 1
- **Pollutant Release and Transfer Register Law**: Class 1 - No. 59
- **Export Trade Control Order**: Not applicable
- **Air Pollution Control Law**: Hazardous Air Pollutants
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
- Chemical Dictionary, Kyoritsu 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