Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>2,3,5-Triphenyl-2H-tetrazolium Chloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>203-05834,209-05831,207-05832,205-05833</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 use only

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
Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture

Substance

Formula

C19H15ClN4

<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>2,3,5-Triphenyltetrazolium chloride</td>
<td>99.0</td>
<td>336.81</td>
<td>N/A</td>
<td>N/A</td>
<td>298-96-4</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

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

Special extinguishing method
No information available

Special protective actions for 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 contaminant 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**

- **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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>white - slightly yellow</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>crystalline powder</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>240 °C (dec.)</td>
</tr>
<tr>
<td><strong>Boiling point, initial boiling point and boiling range</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas):</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Upper :</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Lower :</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature:</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Decomposition temperature:</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity (coefficient of viscosity)</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>
Dynamic viscosity: No data available
Solubilities: water and Ethanol: soluble.
n-Octanol/water partition coefficient:(log Pow): No data available
Vapour pressure: No data available
Specific Gravity / Relative density: No data available
Vapour density: No data available
Particle characteristics: No data available

Section 10: STABILITY AND REACTIVITY

Stability

Reactivity: No data available
Chemical stability: May be altered by light.

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), Nitrogen oxides (NOₓ)

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

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>UN number</th>
<th>Proper shipping name:</th>
<th>UN classification</th>
<th>Subsidiary hazard class</th>
<th>Packing group</th>
<th>Marine pollutant</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>UN number</td>
<td>Proper shipping name:</td>
<td>UN classification</td>
<td>Subsidiary hazard class</td>
<td>Packing group</td>
<td>Marine pollutant (Sea)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>IATA</td>
<td>UN number</td>
<td>Proper shipping name:</td>
<td>UN classification</td>
<td>Subsidiary hazard class</td>
<td>Packing group</td>
<td>Environmentally Hazardous Substance</td>
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</table>

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>Listed</th>
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</thead>
<tbody>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>TSCA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Japanese regulations</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Service Act</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Poisonous and Deleterious Substances Control Law</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Industrial Safety and Health Act</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Regulations for the carriage and storage of dangerous goods in ship</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Civil Aeronautics Law</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Pollutant Release and Transfer Register Law</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Export Trade Control Order</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### Section 15: REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Key literature references and sources for data etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NITE: National Institute of Technology and Evaluation (JAPAN)</td>
</tr>
<tr>
<td><a href="http://www.safe.nite.go.jp/japan/db.html">http://www.safe.nite.go.jp/japan/db.html</a></td>
</tr>
<tr>
<td>IATA dangerous Goods Regulations</td>
</tr>
<tr>
<td>RTECS:Registry of Toxic Effects of Chemical Substances</td>
</tr>
<tr>
<td>Japan Industrial Safety and Health Association GHS Model SDS</td>
</tr>
<tr>
<td>Chemical Dictionary, Kyoritsu Publishing Co., Ltd.</td>
</tr>
<tr>
<td>etc</td>
</tr>
</tbody>
</table>

Disclaimer
This SDS is according to JIS Z 7253: 2019. 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(2019). *JIS: Japanese Industrial Standards

End of Safety Data Sheet