SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision Date 15-Feb-2021
Version 8.03

Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>3-Cyanopyridine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>033-06752</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

<table>
<thead>
<tr>
<th>Acute toxicity - Oral</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 2</td>
</tr>
<tr>
<td>Nervous system, testes</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
<tr>
<td>Blood system, testes</td>
<td></td>
</tr>
</tbody>
</table>

Pictograms

Signal word Warning

Hazard statements

H319 - Causes serious eye irritation
H302 - Harmful if swallowed
H371 - May cause damage to the following organs: nervous system, testes
H373 - May cause damage to the following organs through prolonged or repeated exposure: blood system, testes

Precautionary statements-(Response)

- IF exposed or if you feel unwell: 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.

Precautionary statements-(Prevention)

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary statements-(Emergency)

- IF exposed or if you feel unwell: 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 eye irritation persists: Get medical advice/attention.
• IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
• Rinse mouth.

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 Substance

Formula C6H4N2

<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>3-Cyanopyridine</td>
<td>98.0</td>
<td>104.11</td>
<td>(5)-742</td>
<td>公表</td>
<td>100-54-9</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.

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 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

Section 8: EXPOSURE CONTROLS/PERSOAL 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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form
Color
White - slightly brown

Appearance
Crystals - powder or mass

Odor
Characteristic odor

Melting point/freezing point
48 - 53 °C

Boiling point, initial boiling point and boiling range
206 °C

Flammability
No data available

Evaporation rate:
No data available

Flammability (solid, gas):
No data available

Upper/lower flammability or explosive limits

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W01W0103-0675 JGHEEN
3-Cyanopyridine
**Upper:**  
No data available

**Lower:**  
No data available

**Flash point:**  
84 °C

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

**Decomposition temperature:**  
No data available

**pH:**  
No data available

**Viscosity (coefficient of viscosity):**  
No data available

**Dynamic viscosity:**  
No data available

**Solubilities:**  
water, ethanol: soluble.

**n-Octanol/water partition coefficient:**  
0.23

**Vapour pressure:**  
No data available

**Specific Gravity / Relative density:**  
No data available

**Vapour density:**  
No data available

**Particle characteristics:**  
No data available

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**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)

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**Section 11: TOXICOLOGICAL INFORMATION**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Cyanopyridine</td>
<td>1455 mg/kg (Rat)</td>
<td>1475 mg/kg (Rat)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Chemical Name**

- **Acute toxicity - oral - source information**
- **Acute toxicity - dermal - source information**
- **Acute toxicity - inhalation gas - source information**

3-Cyanopyridine  
Based on the NITE GHS classification results.

**Chemical Name**

- **Acute toxicity - inhalation vapor - source information**
- **Acute toxicity - inhalation dust - source information**
- **Acute toxicity - inhalation mist - source information**

3-Cyanopyridine  
Based on the NITE GHS classification results.

**Skin irritation/corrosion**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Skin corrosion/irritation source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Cyanopyridine</td>
<td>Based on the NITE GHS classification results.</td>
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**Serious eye damage/irritation**

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<th>Serious eye damage/irritation source information</th>
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**Respiratory or skin sensitization**

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<tr>
<th>Chemical Name</th>
<th>Respiratory or Skin sensitization source information</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

**Reproductive cell mutagenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>germ cell mutagenicity source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Cyanopyridine</td>
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**Carcinogenicity**

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<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogenicity source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Cyanopyridine</td>
<td></td>
</tr>
</tbody>
</table>
Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Cyanopyridine</td>
<td>EC50: Tetrahymena pyriformis 581.6 mg/L 60 h</td>
<td>LC50=&gt;106mg/L 96h</td>
<td>EC50=20-160mg/L 48h</td>
</tr>
</tbody>
</table>

Other data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Short-term (acute) hazardous to the aquatic environment</th>
<th>Long-term (chronic) hazardous to the aquatic environment</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Based on the NITE GHS classification results.</td>
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</tr>
</tbody>
</table>

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
Mobility: 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: Not regulated
Proper shipping name:
UN classification:
Subsidiary hazard class:
Packing group:
Marine pollutant: Not applicable

IMDG
UN number: Not regulated
Proper shipping name:
UN classification:
Subsidiary hazard class:
Section 15: REGULATORY INFORMATION

International Inventories
EINECS/ELINCS
Listed
TSCA
Listed

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 storage of dangerous goods in ship
Not applicable
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
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
etc

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