**SAFETY DATA SHEET**

According to JIS Z 7253:2012

**Revision Date** 21-Jun-2018

**Version** 2

---

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product name</th>
<th>Sudachitin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>198-17741</td>
</tr>
<tr>
<td>CAS No</td>
<td>4281-28-1</td>
</tr>
<tr>
<td>Formula</td>
<td>C18H16O8</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>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</td>
</tr>
<tr>
<td>Supplier</td>
<td>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</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>+81-6-6203-3741 / +81-3-3270-8571</td>
</tr>
<tr>
<td>Recommended uses and restrictions on use</td>
<td>For research purposes</td>
</tr>
<tr>
<td>Announcement of company name change</td>
<td>Company name has changed since April 1, 2018. Former name was &quot;Wako Pure Chemical Industries, Ltd.&quot;</td>
</tr>
</tbody>
</table>

---

### Section 2: HAZARDS IDENTIFICATION

**GHS classification**

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Pictograms**

none

**Signal word**

Not applicable

**Hazard statements**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Precautionary statements-(Prevention)**

- Not applicable

**Precautionary statements-(Response)**

- Not applicable

**Precautionary statements-(Storage)**

- Not applicable

**Precautionary statements-(Disposal)**

- Not applicable

**Others**

Other hazards Not available

---

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Single Substance or Mixture | Substance |
## Formula

\[ C_{18}H_{16}O_{8} \]

<table>
<thead>
<tr>
<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>Sudachitin</td>
<td>95.0</td>
<td>360.31</td>
<td>N/A</td>
<td>N/A</td>
<td>4281-28-1</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.
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 it tightly closed in well ventilated cool place under 25°C

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
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
Slight yellow - yellow
Appearance
crystals - powder or mass

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
methanol : soluble.
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)

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>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name:</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>UN classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidiary hazard class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>IATA</th>
<th>UN number</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name:</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>UN classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidiary hazard class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmentally Hazardous Substance</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

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 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
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

Product information
You might get a product which indicates a former company name, during the period of transition.

End of Safety Data Sheet