Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name | N-(Cyclohexylthio)phthalimide
---|---
Product code | 038-14132
CAS No | 17796-82-6
Formula | C14H15NO2S
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
Announcement of company name change | Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Serious eye damage/eye irritation | Category 2A
Skin sensitization | Category 1
Specific target organ toxicity (repeated exposure) | Category 2
 | lung
Aquatic environment (acute hazard) | Category 1
Aquatic environment (long-term hazard) | Category 1

Pictograms

Signal word | Warning
Hazard statements |
---|---
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H373 - May cause damage to the following organs through prolonged or repeated exposure: lung
Precautionary statements-(Prevention)
• Wash face, hands and any exposed skin thoroughly after handling
• Wear protective gloves/protective clothing/eye protection/face protection
• Contaminated work clothing should not be allowed out of the workplace
• Do not breathe dust/fume/gas/mist/vapors/spray
• Avoid release to the environment

Precautionary statements-(Response)
• Get medical advice/attention if you feel unwell
• 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 or rash occurs: Get medical advice/attention
• Wash contaminated clothing before reuse.
• Collect spillage

Precautionary statements-(Storage)
• Not applicable

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
C14H15NO2S

<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>N-(Cyclohexylthio)phthalimide</td>
<td>97.0</td>
<td>261.34</td>
<td>(5)-3358</td>
<td>N/A</td>
<td>17796-82-6</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
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.

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.
Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

- Color: White - slightly brown
- Appearance: crystals - crystalline powder
- Odor: characteristic odor
- pH: No data available
- Melting point/freezing point: 90-94 °C
- 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: No data available
  - Upper:
  - Lower:
- Vapour pressure: No data available
- Vapour density: No data available
- Specific Gravity / Relative density: No data available
- Solubilities: Ethanol and acetone: soluble, water: practically insoluble, or insoluble.
- 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), Nitrogen oxides (NOx), Sulfur oxides (SOx)

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>N-(Cyclohexylthio)phthalimide</td>
<td>2010 mg/kg (Rat)</td>
<td>&gt; 5 g/kg (Rabbit)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Acute toxicity - oral - source information

N-(Cyclohexylthio)phthalimide

**LD50 (orl, rat): 2,600 mg/kg (IUCLID (2000), HSDB (2005)), 4,800 mg/kg, 8,200 mg/kg (IUCLID (2000)).**

**LD50 (skn, rabbit): >5,010 mg/kg (IUCLID (2000), HSDB (2005))**

**LD50 (skn, rabbit): >2,510 mg/kg, LD50 (skn, rabbit): >7,940 mg/kg (IUCLID (2000)).**

Based on the NITE GHS classification results.

### Acute toxicity - dermal - source information

N-(Cyclohexylthio)phthalimide

**LD50 (orl, rat): 2,600 mg/kg (IUCLID (2000), HSDB (2005)), 4,800 mg/kg, 8,200 mg/kg (IUCLID (2000)).**

**LD50 (skn, rabbit): >5,010 mg/kg (IUCLID (2000), HSDB (2005))**

**LD50 (skn, rabbit): >2,510 mg/kg, LD50 (skn, rabbit): >7,940 mg/kg (IUCLID (2000)).**

Based on the NITE GHS classification results.

### Acute toxicity - inhalation gas - source information

N-(Cyclohexylthio)phthalimide

Based on the NITE GHS classification results.

### Acute toxicity - inhalation vapor - source information

N-(Cyclohexylthio)phthalimide

Based on the NITE GHS classification results.

### Acute toxicity - inhalation dust - source information

N-(Cyclohexylthio)phthalimide

Based on the NITE GHS classification results.

### Acute toxicity - inhalation mist - source information

N-(Cyclohexylthio)phthalimide

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>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Serious eye damage / irritation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Serious eye damage source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Respiratory or skin sensitization

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Respiratory, Skin sensitization source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Reproductive cell mutagenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Mutagenic source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogenicity source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Reproductive toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Reproductive toxicity source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### STOT-single exposure

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>STOT - single exposure - source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### STOT-repeated exposure

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>STOT - repeated exposure - source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</td>
</tr>
</tbody>
</table>

### Aspiration hazard

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Aspiration Hazard source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>Based on the NITE GHS classification results.</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>N-(Cyclohexylthio)phthalimide</td>
<td>EC50: <em>Pseudokirchneriella subcapitata</em> 0.021 mg/L 96 h</td>
<td>LC50: <em>Lepomis macrochirus</em> 1.2 mg/L 96 h LC50: <em>Oncorhynchus mykiss</em> 0.41 mg/L 96 h</td>
<td>EC50: <em>Daphnia magna</em> 22 mg/L 48 h</td>
</tr>
</tbody>
</table>

### Other data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Aquatic toxicity - Acute - source information</th>
<th>Aquatic toxicity - Chronic - source information</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-(Cyclohexylthio)phthalimide</td>
<td>LC50: <em>Oncorhynchus mykiss</em>: 0.41 mg/L/96hr (IUCLID, 2004).</td>
<td>This compound is an acute toxicity category 1, and do not have rapid degradation (BIOWIN).</td>
</tr>
</tbody>
</table>

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N-(Cyclohexylthio)phthalimide
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
UN3077
Proper shipping name:
Environmentally hazardous substance, solid, n.o.s. (N-(Cyclohexylthio)phthalimide)
UN classification
9
Subsidiary hazard class
Packing group
III
Marine pollutant
Yes

IMDG
UN number
UN3077
Proper shipping name:
Environmentally hazardous substance, solid, n.o.s. (N-(Cyclohexylthio)phthalimide)
UN classification
9
Subsidiary hazard class
Packing group
III
Marine pollutant (Sea)
Yes
Transport in bulk according to
Annex II of MARPOL 73/78 and
the IBC Code
No information available

IATA
UN number
UN3077
Proper shipping name:
Environmentally hazardous substance, solid, n.o.s. (N-(Cyclohexylthio)phthalimide)
UN classification
9
Subsidiary hazard class
Packing group
III
Environmentally Hazardous
Substance
Yes

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
Noxious Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding
storage of dangerous goods in ship
Civil Aeronautics Law
Transport by Ship and Storage, Attached Table 1)
Pollutant Release and Transfer Register Law
Class 1 - No. 155
Class 1
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.

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