Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name | p-Nitrophenyl Chloroformate
Product code | 142-06852

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 1
Specific target organ toxicity (single exposure) | Category 3
  Category 3 Respiratory tract irritation

Pictograms

Signal word | Danger

Hazard statements
H314 - Causes severe skin burns and eye damage
H335 - May cause respiratory irritation

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
  • Use only outdoors or in a well-ventilated area

Precautionary statements-(Response)
  • IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  • Immediately call a POISON CENTER or doctor/physician
  • 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.
  • Call a POISON CENTER or doctor/physician if you feel unwell.
  • IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
Precautionary statements-(Storage)
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed

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 CICOOC6H4NO2

<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>p-Nitrophenyl Chloroformate</td>
<td>96.0</td>
<td>201.56</td>
<td>(3)-4192</td>
<td>4-(7)-1680</td>
<td>7693-46-1</td>
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</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
- Do not use straight streams

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 firefighters
- 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. Possibility of hydrogen chloride generated by hydrolysis occurs. May be internal pressure of the container is increased. Wear safety glasses, protective gloves, etc. when you opening. 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 tightly closed. Store in a cool (2-10 °C) place.

**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**

Impermeable protective 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**

White - slight brown

**Appearance**

crystals - powder or mass

**Odor**

No data available

**Melting point/freezing point**

81 °C

**Boiling point, initial boiling point and boiling range**

No data available

**Flammability**

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

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>Chemical stability</th>
<th>Hazardous reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td>May be altered by light.</td>
<td>None under normal processing</td>
</tr>
</tbody>
</table>

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), Halides

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: UN3261
- Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (p-Nitrophenyl Chloroformate)
- UN classification: 8
- Subsidiary hazard class: II
- Packing group: Not applicable

IMDG
- UN number: UN3261
- Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (p-Nitrophenyl Chloroformate)
- UN classification: 8
- Subsidiary hazard class: II
- Packing group: Not applicable
- 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: UN3261
- Proper shipping name: Corrosive solid, acidic, organic, n.o.s. (p-Nitrophenyl Chloroformate)
- UN classification: 8
- Subsidiary hazard class: II
- Packing group: Not applicable
- Environmentally Hazardous Substance: Not applicable

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: 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 Notification for Air Transportation of Explosives etc., Attached Table 1)
- 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
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