

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 25-Mar-2024
 Revision Number 4.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|---------------------|--------------------|
| Product Name | Cinnamoyl Chloride |
| Product Code | 039-10262 |

| | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | For research use only |
| Restrictions on use | Seek expert judgment when using for purposes other than those recommended. |

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Corrosive to metals

Category 1

Acute toxicity - Dermal

Category 4

Skin corrosion/irritation

Category 1

Serious eye damage/eye irritation

Category 1

Specific target organ toxicity (single exposure)

Category 3

Category 3 Respiratory irritation

Pictograms



Signal word

Danger

Hazard statements

- H290 - May be corrosive to metals
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H312 - Harmful in contact with skin
- H335 - May cause respiratory irritation

Precautionary statements-(Prevention)

- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Use only outdoors or in a well-ventilated area
- Keep only in original container

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
- Call a POISON CENTER or doctor/physician if you feel unwell

- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- 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
- Absorb spillage to prevent material damage

Precautionary statements-(Storage)

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed
- Store in corrosive resistant/ container with a resistant inner liner

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 C₆H₅CH:CHCOCl

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|--------------------|----------|------------------|----------|----------|----------|
| Cinnamoyl Chloride | 95.0 | 166.60 | (3)-1720 | 公表 | 102-92-1 |

Note on ISHL No.: * in the table means announced chemical substances.

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 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.

Recoverly, 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. 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

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage

Safe storage conditions

Storage conditions

Keep container protect from light and tightly closed in well ventilated cool place under 25°C

Safe packaging material

Glass

Incompatible substances

Strong oxidizing agents, Water

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 (JIS T 8151)

Hand protection

chemical protective gloves (JIS T 8116)

Eye protection

protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection

Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------------------------------------|----------------------------------------------------------------|
| Form | |
| Color | nearly white- brown , upon melting nearly colorless - brown |
| Turbidity | clear ~ slightly muddy (upon melting) |
| Appearance | Mass or ctystals , liquid |
| Odor | Pungent odor |
| Melting point/freezing point | 33-38 °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 |
| Lower: | no data available |
| Flash point | no data available |
| 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 | acetone : freely soluble . water and Ethanol decomposed with . |
| 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. Be hydrolyzed by moisture in the air. |
| Hazardous reactions | None under normal processing |
| Conditions to avoid | Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark, Moisture |
| Incompatible materials | Strong oxidizing agents, Water |
| Hazardous decomposition products | Carbon monoxide (CO), Carbon dioxide (CO ₂), 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 data 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. (Cinnamoyl Chloride) |
| UN classification | 8 |
| Subsidiary hazard class | |
| Packing group | III |
| Marine pollutant | Not applicable |

IMDG

| | |
|--------------------------------------------------------------------------|---------------------------------------------------------------|
| UN number | UN3261 |
| Proper shipping name: | Corrosive solid, acidic, organic, n.o.s. (Cinnamoyl Chloride) |
| UN classification | 8 |
| Subsidiary hazard class | |
| Packing group | III |
| 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. (Cinnamoyl Chloride) |
| UN classification | 8 |
| Subsidiary hazard class | |
| Packing group | III |
| Environmentally Hazardous Substance | Not applicable |

Section 15: REGULATORY INFORMATION

Japanese regulations

| | |
|--------------------------------------------------|----------------|
| Fire Service Act | Not applicable |
| Poisonous and Deleterious Substances Control Law | Not applicable |

| | |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Industrial Safety and Health Act | Not applicable |
| Industrial Safety and Health Act (2024-) | 【2024.4.1~】Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1) |
| 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 (2023.4.1-) | 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
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
 etc

Record of SDS revisions

The following contents were revised. Regulatory information.

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 Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet