



SAFETY DATA SHEET

According to JIS Z 7253:2019

Revision date 26-Feb-2024

Revision Number 2.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| Product Name | Furathiocarb Standard |
|--------------|-----------------------|
| Product Code | 062-03981 |
| | |

Supplier FUJIFILM Wako Pure Chemical Corporation

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Recommended uses For research use only

Restrictions on useSeek expert judgment when using for purposes other than those recommended.

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Acute toxicity - OralCategory 2Acute toxicity - Inhalation (Dusts/Mists)Category 2Skin sensitizationCategory 1Specific target organ toxicity (single exposure)Category 1

Category 1 systemic toxicity, nervous system

Specific target organ toxicity (repeated exposure) Category 1, Category 2

Category 1 blood

Category 2 nervous system

Acute aquatic toxicity
Chronic aquatic toxicity
Category 1
Category 1

Pictograms



Hazard statements

H300 - Fatal if swallowed

H330 - Fatal if inhaled

H317 - May cause an allergic skin reaction

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H370 - Causes damage to the following organs: systemic toxicity, nervous system

H372 - Causes damage to the following organs through prolonged or repeated exposure: blood

H373 - May cause damage to the following organs through prolonged or repeated exposure: nervous system

Precautionary statements-(Prevention)

- · Wash face, hands and any exposed skin thoroughly after handling
- · Do not eat, drink or smoke when using this product
- · Contaminated work clothing should not be allowed out of the workplace

- · Wear protective gloves
- Do not breathe dust/fume/gas/mist/vapors/spray
- · Avoid release to the environment

Precautionary statements-(Response)

- IF exposed: Call a POISON CENTER or doctor/physician
- 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
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth
- · Collect spillage

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 C18H26N2O5S

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|---------------|----------|------------------|------|------------|------------|
| Furathiocarb | 98.0 | 382.47 | N/A | 8-(4)-1074 | 65907-30-4 |

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

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 contaminent 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

<u>Handling</u>

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 tightly closed. Store in a cool (2-10 °C) place. Packed

with an inert gas. Store locked up.

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 handand 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 White - pale yellow , upon melting Colorless - yellow

Appearance mass, upon melting liquid

Odorno data availableMelting point/freezing point43 - 46 °C

Boiling point, initial boiling point and boiling range
Flammability
Evaporation rate:
Flammability (solid, gas):

no data available
no data available
no data available

Upper/lower flammability or explosive limits

Upper:
Lower:
no data available
no data available
rlash point
no data available
pH
no data available

Viscosity (coefficient of viscosity) no data available

Dynamic viscosity no data available

Solubilities Ethanol and acetone : soluble . water : practically insoluble,or

insoluble.

n-Octanol/water partition coefficient:(log Pow) vapour pressureno data available
no data available

Specific Gravity / Relative density 1.148

Vapour densityno data availableParticle characteristicsno data available

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 monooxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Sulfur oxides (SOx)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|----------------|--------------------|-----------------|
| Furathiocarb | 10 mg/kg (Rat) | 2020 mg/kg (Rat) | 0.16 mg/L (Rat) |

| Chemical Name | Acute toxicity -oral- source | Acute toxicity -dermal- source | Acute toxicity -inhalation gas- | |
|---------------|------------------------------|--------------------------------|---------------------------------|--|
| | information | information | source information | |
| | | | Based on the NITE GHS | |
| | classification results. | classification results. | classification results. | |

| Chemical Name | Acute toxicity -inhalation | Acute toxicity -inhalation dust- | Acute toxicity -inhalation mist- | |
|---------------|----------------------------|----------------------------------|----------------------------------|--|
| | vapor- source information | source information | source information | |
| Furathiocarb | Based on the NITE GHS | Based on the NITE GHS | Based on the NITE GHS | |
| | classification results. | classification results. | classification results. | |

Aspiration Hazard source information

Based on the NITE GHS classification results.

Skin irritation/corrosion

| Skill illitation/corrosion | | | | | |
|-----------------------------------|-----|-----------------------------------------------|-----------------------------------------------|----------------------|-------------------|
| Chemical Name | | | Skin corrosion/irritation source information | | |
| Furathiocarb | | Base | Based on the NITE GHS classification results. | | |
| Serious eye damage/ irritation | | | | | |
| Chemical Name | | | Serious eye dan | nage/irritation so | urce information |
| Furathiocarb | | Base | ed on the NITE GH | S classification res | ults. |
| Respiratory or skin sensitization | | | | | |
| Chemical Name | | | Respiratory or Sk | in sensitization s | ource information |
| Furathiocarb | | Base | ed on the NITE GH | S classification res | ults. |
| Reproductive cell mutagenicity | | | | | |
| Chemical Name | | | germ cell mi | utagencity source | information |
| Furathiocarb | | Base | ed on the NITE GH | S classification res | ults. |
| Carcinogenicity | | | | | |
| Chemical Name | | Carcinogenicity source information | | | |
| Furathiocarb | | Based on the NITE GHS classification results. | | | |
| | | | | | |
| Chemical Name | NTP | | IARC | ACGIH | JSOH (Japan) |
| Furathiocarb | | | Group 2A | | |
| 65907-30-4 | | | | | |
| Reproductive toxicity | | | | | |
| Chemical Name | | | Reproductive toxicity source information | | |
| Furathiocarb | | Base | Based on the NITE GHS classification results. | | |
| STOT-single exposure | | | | | |
| Chemical Name | | STOT -single exposure- source information | | | |
| Furathiocarb | | Based on the NITE GHS classification results. | | | |
| STOT-repeated exposure | | | | | |
| Chemical Name | | | STOT -repeated exposure- source information | | |
| Furathiocarb | | Base | Based on the NITE GHS classification results. | | |
| Aspiration hazard | | | | | |
| | | | | | |

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name Algae/aquatic plants | | Fish | Crustacea | |
|------------------------------------|--------------|------|-----------|-----------------|
| | Furathiocarb | N/A | N/A | LC50 : Daphnids |
| | | | | 1.8 ug/L 48 h |

Other data

| Chemical Name | Short-term (acute) hazardous to the | Long-term (chronic) hazardous to the |
|---------------|----------------------------------------|----------------------------------------|
| | aquatic environment source information | aquatic environment source information |
| Furathiocarb | Based on the NITE GHS classification | Based on the NITE GHS classification |
| | results. | results. |

Persistence and degradabilityNo information availableBioaccumulative potentialNo information availableMobility in soilNo information availableHazard to the ozone layerNo information available

Chemical Name

Furathiocarb

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 UN2757

Proper shipping name: Carbamate pesticide, solid, toxic (Furathiocarb)

UN classfication 6.1

Subsidiary hazard class

Packing group III
Marine pollutant Yes

IMDG

UN number UN2757

Proper shipping name: Carbamate pesticide, solid, toxic (Furathiocarb)

UN classfication 6.1

Subsidiary hazard class

Packing group III
Marine pollutant (Sea) Yes

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and

the IBC Code

IATA

UN number UN2757

Proper shipping name: Carbamate pesticide, solid, toxic (Furathiocarb)

UN classfication 6.1

Subsidiary hazard class

Packing group III
Environmentally Hazardous Yes

Substance

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act Not applicable

Poisonous and Deleterious Poisonous Substances 2nd. Grade

Substances Control Law

Industrial Safety and Health Act Not applicable

Industrial Safety and Health Act ([2024.4.1~] Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)

Regulations for the carriage

Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance

and storage of dangerous Regarding Transport by Ship and Storage, Attached Table 1)

goods in ship

Civil Aeronautics Law Toxic and Infectious Substances (Ordinance Art.194, MITL Nortification for Air

Transportation of Explosives etc., Attached Table 1)

Pollutant Release and Transfer Not applicable

Register Law (2023.4.1-)

Export Trade Control Order Not applicable

| Chemical Name | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|-------------------------------------|-----------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|
| Furathiocarb 65907-30-4 (98.0) | 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 Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.

Chemical Dictionary, Kyouritsu Publishing Co., Ltd.

etc

Record of SDS revisions Disclaimer

The following contents were revised. Regulatory information.

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