



SAFETY DATA SHEET

According to JIS Z 7253:2019 **Revision date** 09-May-2023 Revision Number 2.03

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| Product Name | [(S)-(-)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl]dichloropalladi um(?) |
|----------------------------|---|
| Product Code | 027-17401,023-17403 |
| | |
| 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 | For research use only |
| Restrictions on use | Seek expert judgment when using for purposes other than those recommended. |
| | Section 2: HAZARDS IDENTIFICATION |

GHS classification <u>Classification of the substance or mixture</u> Serious eye damage/eye irritation

Pictograms Signal word Warning

Hazard statements H320 - Causes eye irritation

Precautionary statements-(Prevention)

· Wash face, hands and any exposed skin thoroughly after handling

Precautionary statements-(Response)

• 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

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

C44H32Cl2P2Pd

Category 2B

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|-----------------------------|----------|--------------------|--------------------|----------|-------------|
| Dichloro[(S)-(-)-2,2'-bis(d | 98.0 | 800.00 | N/A | N/A | 127593-28-6 |
| iphenylphosphino)-1,1'-b | | | | | |
| inaphthyl]palladium(II) | | | | | |
| Note on ISHI No : | * in the | table means announ | cod chomical subst | ncoc | |

Note on ISHL No.:

* in the table means announced chemical substances.

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 EYE

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

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.

| <u>Storage</u> | |
|-------------------------|--|
| 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. |
| 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.

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 Hand protection Eye protection Skin and body protection

Dust mask (JIS T 8151) chemical protective gloves (JIS T 8116) protective eyeglasses or chemical safety goggles 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 | yellow - red |
| Appearance | crystalline powder - powder |
| Odor | no data available |
| Melting point/freezing point | no data available |
| 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 |
| рН | no data available |
| Viscosity (coefficient of viscosity) | no data available |
| Dynamic viscosity | no data available |
| Solubilities | chloroform : soluble . |
| n-Octanol/water partition coefficient:(log Pow) | no data available |
| Vapour pressure | no data available |
| Specific Gravity / Relative density | no data available |

Vapour density Particle characteristics no data available no 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), Metal oxides, Halides, Phosphorus oxide

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Ecotoxicity

Skin irritation/corrosion Serious eye damage/ irritation Respiratory or skin sensitization Reproductive cell mutagenicity Carcinogenicity

Reproductive toxicity STOT-single exposure STOT-repeated exposure Aspiration hazard no data available

no data available no data available no data available no data available no data available

no data available no data available no data available no data available

Section 12: ECOLOGICAL INFORMATION

| Other data | no data available |
|---|--|
| Persistence and degradability Bioaccumulative potential Mobility in soil Hazard to the ozone layer | No information available No information available No information available No information available |

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

No information available

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 Proper shipping name: UN classfication Subsidiary hazard class Packing group Marine pollutant | Not regulated - Not applicable |
|--|--|
| IMDG UN number Proper shipping name: UN classfication Subsidiary hazard class Packing group Marine pollutant (Sea) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not regulated - Not applicable No information available |
| IATA UN number Proper shipping name: UN classfication Subsidiary hazard class Packing group Environmentally Hazardous Substance | Not regulated - Not applicable |

Section 15: REGULATORY INFORMATION

International Inventories EINECS/ELINCS TSCA

| Japanese regulations | |
|---------------------------------|-----------------|
| Fire Service Act | Not applicable |
| Poisonous and Deleterious | Not applicable |
| Substances Control Law | |
| Industrial Safety and Health Ac | tNot applicable |
| Regulations for the carriage | Not applicable |
| and storage of dangerous | |
| goods in ship | |
| Civil Aeronautics Law | Not applicable |
| Pollutant Release and Transfer | Not applicable |
| Register Law | |
| (2023.4.1-) | |
| Export Trade Control Order | Not applicable |

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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 |

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