



SAFETY DATA SHEET

According to JIS Z 7253:2019 Revision date 07-Feb-2023 Revision Number 2.02

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| Product Name | 2,2'-Methylenebis(6-t-butyl-4-methylphenol) | | |
|--------------|---|--|--|
| Product Code | 131-11912 | | |

Manufacturer FUJIFILM Wako Pure Chemical Corporation

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Supplier FUJIFILM Wako Pure Chemical Corporation

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Phone: +81-6-6203-3741 Fax: +81-6-6203-2029

Emergency telephone number Recommended uses and

+81-6-6203-3741 / +81-3-3270-8571 For research use only

restrictions on use

Section 2: HAZARDS IDENTIFICATION

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

Category 2B **Reproductive Toxicity** Category 2 Acute aquatic toxicity Category 3 Chronic aquatic toxicity Category 3

Pictograms



Signal word

Warning

Hazard statements

Central nervous system

H361 - Suspected of damaging fertility or the unborn child

H412 - Harmful to aquatic life with long lasting effects

H402 - Harmful to aquatic life

Precautionary statements-(Prevention)

- · Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- · Use personal protective equipment as required
- · Wash face, hands and any exposed skin thoroughly after handling
- · Avoid release to the environment

Precautionary statements-(Response)

- IF exposed or concerned: Get medical advice/attention
- 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)

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 C23H32O2

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|---------------------------|----------|------------------|---------|----------|----------|
| 2,2'-Methylenebis(6-t-but | 99.0 | 340.50 | (4)-100 | * | 119-47-1 |
| yl-4-methylphenol) | | | | | |

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.

Eve 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

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.

Storage

Safe storage conditions

Storage conditions Keep container protect from light, store

in well-ventilated place at room temperature (preferably cool). Keep container tightly

closed.

Safe packaging material Polyethylene

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 Hand protectionDust mask

Protection 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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color White - nearly white

Appearance powder

Odor no data available

Melting point/freezing point 129 °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
Auto-ignition temperature:
no data available
no data available
pecomposition temperature:
no data available
ph
no data available
viscosity (coefficient of viscosity)
no data available
pynamic viscosity
no data available

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

insoluble .

n-Octanol/water partition coefficient:(log Pow) 6.25

Vapour pressureno data availableSpecific Gravity / Relative densityno data availableVapour 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)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------------|------------------|------------------------|-----------------|
| 2,2'-Methylenebis(6-t-butyl-4-m | 4880 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | N/A |
| ethylphenol) | | | |

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

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---------------------------------|----------------------|------------------------|-----------|
| 2,2'-Methylenebis(6-t-butyl-4-m | N/A | LC50 : Oryzias latipes | N/A |

ethylphenol) >5.0 mg/L 96 h

Other data no data available

Persistence and degradability

Degree of decomposition: 0 % by BOD (METI Existing chemical safety inspections)

Bioaccumulative potential

Low accumulation Bioaccumulative potential

Mobility in soil

No information available 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 Not regulated

UN number

Proper shipping name:

UN classfication

Subsidiary hazard class

Packing group

Marine pollutant Not applicable

IMDG Not regulated

UN number

Proper shipping name:

UN classfication

Subsidiary hazard class

Packing group

Marine pollutant (Sea) Not applicable

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and

the IBC Code

IATA Not regulated

UN number Proper shipping name:

UN classfication

Subsidiary hazard class

Packing group

Environmentally Hazardous

Not applicable

Substance

Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS Listed
TSCA Listed

Japanese regulations

Fire Service Act
Poisonous and Deleterious
Not applicable
Not applicable

Substances Control Law

Industrial Safety and Health Act Not 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 (~2023.3.31)

Pollutant Release and Transfer

Not applicable

Register Law (2023/4/1~)

Water Pollution Control Act Export Trade Control Order

Specified substances(Law Art.2 Para.4, Enforcement Order Art.3-3)

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 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 Z7252(2019). *JIS: Japanese Industrial Standards

End of Safety Data Sheet