

SAFETY DATA SHEET

1. IDENTIFICATION

Product name: 2,2'-(1,4-Phenylene)bis(4H-3,1-benzoxazin-4-one)
CAS No. : 18600-59-4
Brand: Macklin
Company: Shanghai Macklin Biochemical Co.,Ltd.
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Revision date: 2019/12/12

2. HAZARDS IDENTIFICATION

GHS classification

PHYSICAL HAZARDS

no data available

HEALTH HAZARDS

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye irritation.

ENVIRONMENTAL HAZARDS

no data available

GHS label elements, including precautionary statements

Pictograms or hazard symbols

Signal word

Warning

Hazard statements

H302 Harmful if swallowed H317 May cause an allergic skin reaction H319 Causes serious eye irritation

Precautionary statements

Prevention

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Response

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment (see ... on this label).

Storage

none

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components:2,2'-(1,4-Phenylene)bis(4H-3,1-benzoxazin-4-one)

CAS No.:18600-59-4

Chemical Formula:C₂₂H₁₂N₂O₄

4. FIRST AID MEASURES

4.1

Description of necessaryIf inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2

Most important symptoms/effects, acute and delayed

no data available

4.3

Indication of immediate medical attention and special treatment needed, if necessary

no data available

5. FIRE-FIGHTING MEASURES

5.1

Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2

Specific hazards arising from the chemical

no data available

5.3

Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

6.2

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and

eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure limit values

no data available

Biological limit values

no data available Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Personal protective equipment

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flamm resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

Solid

Colour

Off white.

Odour

odorless

Melting point/freezing point

315 °C. Remarks:Based on 2 determinations.;314.85°C. Remarks:Based on 2 determinations.

Boiling point or initial boiling point and boiling range

> 456 °C. Atm. press.:1 021 mBar. Remarks:In 2 tests no boiling was observed up to 456°C, but discoloration of the liquid and generation of white fumes werexa0bservedxa0fromxa0330°Cxa0onwards, indicating decomposition.

Flammability

no data available

Lower and upper explosion limit/flammability limit

no data available

Flash point

no data available

Auto-ignition temperature

Remarks:Under the conditions of the study, the substance did not self-ignite.

Decomposition temperature

no data available

pH

no data available

Kinematic viscosity

no data available

Solubility

In water: < 0.112 mg/L. Temperature:20 °C. pH:>= 6.85 - <= 7.46. Remarks:The water solubility is < the detection limit of the method of analysis (for more details see any other information on results').

Partition coefficient n-octanol/water

log Pow = 4.7. Temperature:22 °C. Remarks:PH neutral, no buffers used.;Pow = 50 119. Temperature:22 °C. Remarks:PH neutral, no buffers used.

Vapour pressure
< 0 Pa. Temperature:25 °C.
Density and/or relative density
1 435 kg/m³. Temperature:20 °C.;1.435 g/cm³. Temperature:20 °C.;1.435. Temperature:20 °C.
Relative vapour density
no data available
Particle characteristics
no data available

10. STABILITY AND REACTIVITY

10.1
Reactivity
Stable under proper conditions
10.2
Chemical stability
no data available
10.3
Possibility of hazardous reactions
no data available
10.4
Conditions to avoid
no data available
10.5
Incompatible materials
no data available
10.6
Hazardous decomposition products
no data available

11. TOXICOLOGICAL INFORMATION

Toxicological information
Acute toxicity
Oral: LD50 - rat (male/female) - > 5 000 mg/kg bw.
Inhalation: no data available
Dermal: LD50 - rat (male/female) - > 2 000 mg/kg bw.
Skin corrosion/irritation
no data available
Serious eye damage/irritation
no data available
Respiratory or skin sensitization
no data available
Germ 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

12. ECOLOGICAL INFORMATION

Ecological information
12.1
Toxicity
Toxicity to fish: EC50 - Oncorhynchus mykiss (previous name: Salmo gairdneri) - > 0.25 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* - > 0.27 mg/L - 48 h.
Toxicity to algae: EC50 - *Pseudokirchneriella subcapitata* (previous names: *Raphidocelis subcapitata*, *Selenastrum capricornutum*) - > 0.024 mg/L - 72 h.
Toxicity to microorganisms: EC50 - activated sludge of a predominantly domestic sewage - > 100 mg/L - 3 h. Remarks: Respiration rate.

12.2

Persistence and degradability

no data available

12.3

Bioaccumulative potential

no data available

12.4

Mobility in soil

no data available

12.5

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. TRANSPORT INFORMATION

14.1 UN Number

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA-DGR: Not dangerous goods.

14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA-DGR: Not dangerous goods.

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA-DGR: Not dangerous goods.

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA-DGR: Not dangerous goods.

14.5 Environmental hazards

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA-DGR: Not dangerous goods.

14.6 Special precautions for user

Not dangerous goods.

14.2696 Incompatible materials

Not dangerous goods.

15. REGULATORY INFORMATION

15.1

Safety, health and environmental regulations specific for the product in question

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European Inventory of Existing Commercial Chemical Substances (EINECS)
Not Listed.
EC Inventory
Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory
Not Listed.
China Catalog of Hazardous chemicals 2015
Not Listed.
New Zealand Inventory of Chemicals (NZIoC)
Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)
Not Listed.
Vietnam National Chemical Inventory
Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)
Not Listed.
Korea Existing Chemicals List (KECL)
Not Listed.

16. OTHER INFORMATION

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.