MACKLIN®

SAFETY DATA SHEET

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1. IDENTIFICATION

Product name: 2,5-Di-tert-amylhydroquinone CAS No. : 79-74-3 Brand: Macklin Company: Shanghai Macklin Biochemical Co.,Ltd. Address: Shanghai Pudong Zhangjiang High-tech Park; 1st Building, 68 Huatuo Road; SHANGHAI CHINA Zip code: 201206 Telephone: +86 21-50706066 Fax: +86 21-50706099 E-mail: sales@macklin.cn; tech@macklin.cn Revision date: 2019/12/12

2. HAZARDS IDENTIFICATION

GHS classification PHYSICAL HAZARDS no data available

HEALTH HAZARDS

no data available

ENVIRONMENTAL HAZARDS

no data available

GHS label elements, including precautionary statements

Pictograms or hazard symbols

Signal word no data available Hazard statements no data available Precautionary statements Prevention no data available

> Response no data available

> Storage no data available

> Disposal no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components:2,5-Di-tert-amylhydroquinone CAS No.:79-74-3 Chemical Formula:C₁₆H₂₆O₂

4. FIRST AID MEASURES

4.1 Description of necessary first-aid measures If 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 Absorption, Distribution and Excretion

Cmpd was found in tissues incl neurological tumors, adult & fetal brain. no contamination source was found in hospital; possible source: antioxidant prepn in rubber mfr.

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 at room temperature, in a dry place. Store separately from food 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/flame 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

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Physical state
Solid.
Odour
no data available
Melting point/freezing point
180.77 °C. Remarks: Atmospheric pressure not stated.
Boiling point or initial boiling point and boiling range
325.7 °C. Remarks: Atmospheric pressure not stated.
Flammability
no data available
Lower and upper explosion limit/flammability limit
no data available
Flash point
67°C(lit.)
Auto-ignition temperature
no data available
Decomposition temperature
no data available
pН
no data available
Kinematic viscosity
no data available
Solubility
SLIGHTLY SOL IN WATER; SOL IN ALCOHOL & BENZENE
Partition coefficient n-octanol/water
log Pow = 3.3. Temperature:25 °C. Remarks:Test Substance.;log Pow = 3. Temperature:25 °C.
Remarks:Impurity I.; log Pow = 3.6. Temperature:25 °C. Remarks:Impurity II.
Vapour pressure
0 Pa. Temperature:20 °C.
Density and/or relative density
1.04 g/cm<sup>3</sup>. Temperature:20 °C.;1.04. Temperature:20 °C.
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Relative vapour density no data available Particle characteristics no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity no data available 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

Acute toxicity Oral: LD50 - rat (male/female) - 1 900 mg/kg bw. Inhalation: no data available Dermal: LD50 - rabbit (male/female) - > 3 160 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

12.1

Toxicity

Toxicity to fish: LC50 - Lepomis macrochirus - 0.013 mg/L - 96 h. Remarks: Santovar A. Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna - 0.91 mg/L - 48 h. Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - 1.7 mg/L - 96 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. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.)

14.2

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.) 14.3

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.) 14.4

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.) IMDG: Not dangerous goods. (For reference only, please check.) IATA: Not dangerous goods. (For reference only, please check.) 14.5 Environmental hazards ADR/RID: Yes IMDG: Yes

IATA: Yes

14.6Special precautions for userno data available14.7Transport in bulk according to IMO instrumentsno data available

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question EC number 201-222-2 European Inventory of Existing Commercial Chemical Substances (EINECS) Listed. **EC** Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory Listed. China Catalog of Hazardous chemicals 2015 Not Listed. New Zealand Inventory of Chemicals (NZIoC) Listed. Philippines Inventory of Chemicals and Chemical Substances (PICCS) Listed. Vietnam National Chemical Inventory Listed. Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) Listed. Korea Existing Chemicals List (KECL) 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 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.