Shanghai Macklin Biochemical Technology Co., Ltd.
TEL:400-623-8666
FAX:021-50706099
E-mail:sales@macklin.cn
WEB:www.macklin.cn

1. IDENTIFICATION

Product name: Oxytetracycline
CAS No. : 79-57-2
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:Oxytetracycline
CAS No.:79-57-2
Chemical Formula:$C_{22}H_{24}N_2O_9$

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

SYMPTOMS: Symptoms of exposure to this compound may include nausea, anorexia, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region; edema, benign intracranial hypertension, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus, hemolytic anemia, neutropenia, thrombocytopenia and eosinophilia. It can cause hypersensitivity reactions, such as rashes, urticaria, dermatitis, atrophic or hypertrophic glossitis, burning of the eyes, cheilosis, pruritus ani or vulvae, vaginitis and fever. Other symptoms of exposure to this type of compound include gastrointestinal disturbances with flatulence, drug fever, rise in blood urea and clinical deterioration in those with renal impairment. This class of compounds may also cause an overgrowth of resistant organisms (such as Candida species and other fungi) in the mouth and intestines, producing angular stomatitis, and rectal and vaginal irritation. It may also cause marked changes in the intestinal flora, resulting in multiplication of resistant organisms and deficiency of B vitamins. Staphylococcal enterocolitis may occur suddenly, often ending fatally. It may cause liver damage, especially in pregnancy. ACUTE/CHRONIC HAZARDS: When heated to decomposition this compound emits very toxic fumes of hydrogen chloride and nitrogen oxides. (NTP, 1992)

4.3

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

Basic treatment: Establish a patent airway (oropharyngeal or nasopharyngeal airway, if needed). Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if needed. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for pulmonary edema and treat if necessary . Monitor for shock and treat if necessary . Anticipate seizures and treat if necessary . For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with 0.9% saline (NS) during transport . Do not use emetics. For ingestion, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool . Cover skin burns with dry sterile dressings after decontamination . Poisons A and B

5. FIRE-FIGHTING MEASURES

5.1

Suitable extinguishing media

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

5.2

Specific hazards arising from the chemical

Flash point data for this chemical are not available. It is probably combustible. (NTP, 1992)

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

Oxytetracycline hydrochloride preparations should be stored at a temperature less that 40 deg C, preferably between 15-30 deg C; freezing of oxytetracycline injection should be avoided. Oxytetracycline hydrochloride capsules should be stored in tight, light-resistant containers. Oxytetracycline hydrochloride

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

Physical state

no data available

Colour

no data available

Odour

no data available

Melting point/freezing point

183°C

Boiling point or initial boiling point and boiling range

817.08°C at 760 mmHg

Flammability

no data available

Lower and upper explosion limit/flammability limit

no data available
Flash point
447.954°C
Auto-ignition temperature
no data available
Decomposition temperature
no data available
pH
no data available
Kinematic viscosity
no data available
Solubility
47 [ug/mL]
Partition coefficient n-octanol/water
no data available
Vapour pressure
9.7X10-25 mm Hg at 25 deg C (est)
Density and/or relative density
1.634 g/cm3 (20°C)
Relative vapour density
no data available
Particle characteristics
no data available

10. STABILITY AND REACTIVITY

10.1
Reactivity
This chemical is hygroscopic. Water soluble. Undergoes slow hydrolysis in the presence of water. Concentrated aqueous solutions at neutral pH hydrolyze on standing.
10.2
Chemical stability
Stable in air, but exposure to strong sunlight causes it to darken. oxytetracycline dihydrate
10.3
Possibility of hazardous reactions
OXYTETRACYCLINE HYDROCHLORIDE is sensitive to light. It may be unstable at temperatures above 77° F. It darkens on exposure to sunlight or to moist air above 194° F. Concentrated aqueous solutions at neutral pH hydrolyze on standing. This chemical undergoes hydrolysis in the presence of water. It may be incompatible with alkalis. (NTP, 1992)
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 Swiss mice oral 7200 mg/kg hydroxytetracycline monohydrochloride
Inhalation: no data available
Dermal: no data available

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 (Bluegill) >100 ppm/96 hr; static /formulated product/[USEPA, Office of Pesticide Programs; Pesticide Ecotoxicity Database (2000) on
Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna (Water flea; intoxication, immobilization) >102 ppm/48 hr; static /formulated product/[USEPA, Office of Pesticide Programs; Pesticide Ecotoxicity Database (2000) on
Toxicity to algae: no data available
Toxicity to microorganisms: no data available
12.2
Persistence and degradability
AEROBIC: Oxytetracycline in a soil and manure sample underwent 0% degradation after 180 days(1). Fifty percent degradation of oxytetracycline took place in an aerobic sediment slurry after 43.8 days(1). Oxytetracycline in soil was degraded to 17 and 39% of the initial concentrations of 60 and 600 mg, respectively, after 35 days and to 3 and 29% of the initial concentrations of 120 and 1200 mg/kg, respectively, after 100 days during manometric respirometry tests(2).
12.3
Bioaccumulative potential
An estimated BCF of 0.12 was calculated for oxytetracycline(SRC), using a log Kow of -0.90(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).
12.4
Mobility in soil
Koc values measured for oxytetracycline were 42,506 in Askov sandy loam soil (1.6% organic carbon), 93,317 in Flakkebjerg sandy loam soil (1.1% organic carbon), 27,792 in Borris loamy sand (1.5% organic carbon), and 47,881 in Lundgaard sandy soil (1.4% organic carbon)(1,2,3,4). The Koc of oxytetracycline measured in manure (49% organic carbon) was 195(4,5). According to a classification scheme(6), this range of Koc values suggests that oxytetracycline is expected to have moderate to no mobility in soil. Based on a measured pKa value of 9.5 (tertiary amine)(5), oxytetracycline is expected to exist primarily as a cation in the environment and cations generally have lower mobility in soil than their neutral counterparts(7).
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: no data available
IMDG: no data available
IATA: no data available
14.2
UN Proper Shipping Name
ADR/RID: no data available
IMDG: no data available
IATA: no data available
14.3
Transport hazard class(es)
ADR/RID: no data available
IMDG: no data available
IATA: no data available
14.4
Packing group, if applicable
ADR/RID: no data available
IMDG: no data available
IATA: no data available
14.5
Environmental hazards
ADR/RID: No
IMDG: No
IATA: No
14.6
Special precautions for user
no data available
14.7
Transport in bulk according to IMO instruments
no data available

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question
EC number
201-212-8
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 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.