

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) Classifications according to Regulation (EC) No 1272/2008. Printdate 23 Jun 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Tigecycline

1.1. Catalog No.:

676002

1.2. Relevant identified uses of the substance or mixture Identified: Laboratory chemical uses: R&D

uses:

1.3. Uses advised against:

HPC Standards GmbH Am Wieseneck 7

04451 Cunnersdorf Deutschland

Tel. +49 34291 3372-36 Fax. +49 34291 3372-39 contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36 This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Eye irritation (Category 2), H319 Reproductive toxicity (Category 1B), H360FD Specific target organ toxicity - repeated exposure (Category 1), Liver, Pancreas, Teeth, Bone, H372 Long-term (chronic) aquatic hazard (Category 1), H410 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

2.2.1. Pictogram





2.2 Label elements



Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard statement(s) H319 Causes serious eye irritation. H360FD May damage fertility. May damage the unborn child. H372 Causes damage to organs (Liver, Pancreas, Teeth, Bone) through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. Precautionary statement(s) P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard Statements none Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard statement(s) H372 Causes damage to organs through prolonged or repeated exposure. H360FD May damage fertility. May damage the unborn child. Precautionary statement(s) P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust. P264 Wash skin thoroughly after handling. P308 + P313 IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard Statements none 2.3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Caution: Physiologically highly active, therapeutically usable substance. The substance must be handled with the care required for hazardous materials.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Formula : C6H8CIN3OS Molecular weight : 585,65 g/mol CAS-No. : 220620-09-7 Component: Tigecycline CAS-No. : 220620-09-7 Classification Eye Irrit. 2; Repr. 1B; STOT RE 1; Aquatic Chronic 1; H319, H360FD, H372, H410 M-Factor - Aquatic Chronic: 1 Concentration: <= 100 % For the full text of the H-Statements mentioned in this Section, see Section 16



3.1.2. Molecular Weight (g/mol)

585.65

3.1.3. CAS-No.

220620-09-7

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General advice Show this material safety data sheet to the doctor in attendance. If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Nitrogen oxides (NOx) Combustible Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.



6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling Advice on safe handling Work under hood. Do not inhale substance/mixture. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Storage stability Recommended storage temperature -20 - 0 °C Storage class Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection kin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm



Break through time: 480 min Material tested:KCL 741 Dermatril® L Body Protection protective clothing Respiratory protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Physical state solid b) Color orangec) Odor No data available c) Odor No d) Melting point/freezing point Melting point/range: 180 - 183 °C at 1.013 hPa e) Initial boiling point and boiling range No data available f) Flammability (solid, gas) The product is not flammable. g) Upper/lower flammability or explosive limits No data available h) Flash point Not applicable i) Autoignition temperature No data available j) Decomposition temperature No data available No data available k) pH No data available l) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available m) Water solubility at 20 °C soluble n) Partition coefficient: n-octanol/water log Pow: 2,7 at 25 °C - Bioaccumulation is not expected., (Lit.) o) Vapor pressure No data available p) Density No data available Relative density No data available q) Relative vapor q) Relative vapor density
 No data available r) Particle characteristics No data available s) Explosive properties No data available t) Oxidizing properties none 9.2 Other safety information Solubility in other solvents dimethyl sulfoxide at 20 °C - soluble



10. STABILITY AND REACTIVITY

10.1 Reactivity
10.1 Reactivity
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .
10.3 Possibility of hazardous reactions
Violent reactions possible with:
Strong oxidizing agents
10.4 Conditions to avoid no information available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity Oral: No data available Inhalation: No data available Dermal: No data available Skin corrosion/irritation No data available Serious eye damage/eye irritation Eyes - Rabbit Result: Severe irritations Remarks: (External MSDS) Respiratory or skin sensitization Local lymph node assay (LLNA) - Mouse Result: positive Remarks: (External MSDS) Germ cell mutagenicity Test Type: Mutagenicity (mammal cell test): chromoso Test system: Chinese hamster ovary cells Result: negative Remarks: (Lit.) Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Result: negative Remarks: (Lit.) Test Type: In vivo micronucleus test Species: Mouse Result: negative Remarks: (Lit.) Carcinogenicity No data available Test Type: Mutagenicity (mammal cell test): chromosome aberration. No data available Reproductive toxicity May damage the unborn child. May damage fertility. Specific target organ toxicity - single exposure No data available Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure. - Liver, Pancreas, Teeth, Bone Aspiration hazard No data available 11.2 Additional Information Endocrine disrupting properties Product: Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



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12. ECOLOGICAL INFORMATION

12.1 Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0,26 mg/l - 72 h Remarks: (External MSDS) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 2 mg/l - 48 h Remarks: (External MSDS) Toxicity to algae ErC50 - algae - 1,65 mg/l - 72 h Remarks: (External MSDS) Toxicity to fish(Chronic toxicity) NOEC - Pimephales promelas (fathead minnow) - 22 ug/l - 32 d Remarks: (External MSDS) Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) NOEC - Daphnia magna (Water flea) - 2,1 mg/l - 21 d Remarks: (External MSDS) 12.2 Persistence and degradability Biodegradability Result: - Not readily biodegradable. 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Endocrine disrupting properties Product: Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 12.7 Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.



14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: 3077 IMDG: 3077 IATA: 3077 14.2 UN proper shipping name ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tigecycline) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tigecycline) IATA: Environmentally hazardous substance, solid, n.o.s. (Tigecycline) 14.3 Transport hazard class(es) ADR/RID: 9 IMDG: 9 IATA: 9 14.4 Packaging group ADR/RID: 1II IMDG: III IATA: III 14.5 Environmental hazards ADR/RID: yes IMDG Marine pollutant: yes IATA: yes 14.6 Special precautions for user Tunnel restriction code : (-) Further information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
: ENVIRONMENTAL HAZARDS Other regulations
Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
15.2 Chemical Safety Assessment For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!