Material Safety Data Sheet

Section 1: Product and Company Identification			
Product Name	Tetracycline Hydrochloride		
Catalogue Number:	AS-2022	**CAS Number:**	64-75-5
E-mail:	Sales@ausamics.com	**Website**:	Ausamics.com

Section 2: Hazards Identification	
Classification of the substance or mixture **Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567** Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Reproductive toxicity (Category 2), H361fd Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 2), H411	
GHS Label elements, including precautionary statements	
Pictogram	
Signal Word	Warning
Hazard statement(s) H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. 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. P261 Avoid breathing dust. P273 Avoid release to the environment. P302 + P352 IF ON SKIN: Wash with plenty of water. 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.	
Hazards not otherwise classified (HNOC) or not covered by GHS 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.	

Section 3: Composition / Information on Ingredients	
Substances	
Formula Molecular weight CAS-No.	C22H24N2O8 · HCl 480.90 g/mol

EC-No.	64-75-5 200-593-8		
Component		**Classification**	**Concentration***
Tetracycline hydrochloride			
CAS-No. EC-No.	64-75-5 200-593-8	Skin Irrit. 2; Eye Irrit. 2; Repr. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 2; H315, H319, H361fd, H335, H400, H411 M-Factor - Aquatic Acute: 1	<= 100 %

Section 4: First Aid Measures

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 the ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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

Section 5: Fire Fighting Measures

Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Carbon oxides
Nitrogen oxides (NOx)
Hydrogen chloride gas
Combustible.
Development of hazardous combustion gases or vapors possible in the event of fire.

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.

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.

Section 6: Accidental Release Measures

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

Environmental precautions

Do not let product enter drains.
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 dry. Dispose of properly. Clean up affected area. Avoid generation of dust.
Reference to other sections For disposal see section 13.

Section 7: Handling and Storage	
Precautions for safe handling For precautions see section 2.	
Conditions for safe storage, including any incompatibilities	
Storage conditions	Tightly closed. Dry.
Storage stability	Recommended storage temperature -20 °C Keep in a dry place.
Storage class	Storage class (TRGS 510): 11: Combustible Solids

Section 8: Exposure Controls / Personal Protection
Control parameters **Components with workplace control parameters** Contains no substances with occupational exposure limit values.
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 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 For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure Do not let product enter drains.

Section 9: Physical and Chemical Properties	
Physical state	Powder
Color	Yellow
Odor	No data available
Melting point/freezing point	Melting point/range: 220 - 223 °C
Initial boiling point and boiling range	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	No data available
Vapor pressure	No data available
Autoignition temperature	No data available
Decomposition temperature	214 °C
pH	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No data available
Density	No data available
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Other safety information	No data available

Section 10: Stability and Reactivity
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.
Chemical stability The product is chemically stable under standard ambient conditions (room temperature). May discolor on exposure to light.
Possibility of hazardous reactions No data available
Conditions to avoid no information available
Incompatible materials No data available
Hazardous decomposition products In the event of fire: see section 5

Section 11: Toxicological Information	
Information on toxicological effects	
Mixture	
Acute toxicity	LD50 Oral - Rat - 6,443 mg/kg Remarks: (RTECS) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Remarks: Causes skin irritation.
Serious eye damage/eye irritation	Remarks: Causes serious eye irritation.
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Remarks: (Lit.)
Carcinogenicity	No data available
Reproductive toxicity	Suspected of damaging the unborn child. Suspected of damaging fertility.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
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.
RTECS: QI9100000 phototoxic reactions, Gastrointestinal disturbance, yellowing of teeth, reduced mineralization. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Liver - Irregularities - Based on Human Evidence	

Section 12: Ecological Information	
Toxicity	
Toxicity to fish	LC50 - Salvelinus namaycush (Lake trout, siscowet) - 220 mg/l – 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 340 mg/l - 48 h (OECD Test Guideline 202) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Tetracycline
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) – 1 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products)

	The value is given in analogy to the following substances: Tetracycline static test NOEC - Pseudokirchneriella subcapitata (green algae) - 0.5 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Tetracycline
Persistence and degradability	
Biodegradability	aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. (OECD Test Guideline 301B) Remarks: (in analogy to similar compounds) The value is given in analogy to the following substances: Tetracycline
Bio accumulative potential	No data available
Mobility in soil	No data available
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.
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.
Other adverse effects	No data available

Section 13: Disposal Consideration
Waste treatment methods **Product** Offer surplus and non- recyclable solutions to a licensed company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging Dispose of as unused product.

Section 14: Transport Information	
UN number	ADR/RID: 3077 IMDG: 3077 IATA: 3077
UN proper shipping name	ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tetracycline hydrochloride) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tetracycline hydrochloride) IATA: Environmentally hazardous substance, solid, n.o.s. (Tetracycline hydrochloride)
Transport hazard class(es)	ADR/RID: 9 IMDG: 9 IATA: 9
Packaging group	ADR/RID: III IMDG: III IATA: III
Environmental hazards	ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

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 packaging and combination packaging containing inner packaging 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.

Section 15: Regulatory Information

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.	E1 ENVIRONMENTAL HAZARDS

Other regulations
Observe work restrictions regarding maternity protection in accordance with 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.

Chemical Safety Assessment
For this product a chemical safety assessment was not carried out.

Section 16: Additional Notes

Documented By	Ausamics Life Science Sales@Ausamics.com
Revision date	June 01, 2024
Summary of Revisions	This document has been revised to meet the requirements of the US OSHA HazCom 2012 Standard, which supersedes the existing regulations outlined in 29 CFR 1910.1200, in order to align with the internationally recognized globally Harmonized System of Classification and Labeling of chemicals (GHS).
Disclaimer	The information presented in this Safety Data sheet is accurate to the best of our knowledge, information, and belief at the time of publication. It is intended as a guide for the safe handling, use, processing, storage, transportation, disposal, and release of specific materials. However, it should be interpreted as a warranty or quality specification. The provided information pertains solely to the designated material and may not be applicable to its use in combination with other materials or in any process, unless explicitly stated in the text.