

Version: Discofinechem8
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MATERIAL SAFETY DATA SHEET

Tetracycline Hydrochloride

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers:

Product name: Tetracycline Hydrochloride

Product number: 0000064755

Brand: Discovery

Reach No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require registration or the registration is envisaged for a later

Registration deadline.

Cas No.: 64-75-5

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Discovery Fine Chemicals Ltd
Unit 4A, Old Forge Road, Ferndown Ind. Estate,
Wimborne, Dorset, BH21 7RR.
United Kingdom

Telephone: +44 (0)1202 874517

Fax: +44 (0)845 0944 385

E-mail: discovery@discofinechem.com

1.4 Emergency telephone : +44 (0)7912 646956

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Reproductive toxicity (Category 2), H361fd

STOT SE (category 3), Respiratory system, H335

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this section see section 16

Classification according to EU Directives 67/548/EEC or 1999/45/EC

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

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

P280 Wear protective clothing and eye protection
 P302+P352 If on SKIN wash with plenty of water. Remove contact lenses. Continue rinsing.
 P305+P351+P338 if in EYES remove contact lenses and rinse with water. Continue rinsing.
 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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula: C₂₂H₂₄N₂O₈ · HCl
 Molecular Weight: 480.90 g/mol
 Cas No: 64-75-5
 E.C.No: 200-593-8

Component	Classification	Concentration
Tetracycline Hydrochloride	Skin Irrit. 2; Eye Irrit. 2; Repr.2;	<=99%
CAS-No.603-45-2	STOT SE 3; Aquatic Acute 1;	
E.C.No. 210-041-8	Aquatic Chronic 2	
	H315, H319, H361fd, H335, H400, H411	
	M-Factor – Aquatic Acute: 1	

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled - If breathed in, move person into fresh air. Consult a doctor if feeling unwell.

In case of skin contact – Remove all contaminated clothing. Rinse skin with water. Consult a physician.

In case of eye contact – Flush eyes with water. Remove contact lenses. Call an ophthalmologist.

If swallowed – Make victim drink water (max 2 glasses) and consult a doctor

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. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media – use water spray, alcohol resistant foam, dry chemical or carbon dioxide (CO₂)

Unsuitable extinguishing media – for this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas, Combustible, Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters – wear self-contained breathing apparatus. Prevent skin contact by keeping a safe distance.

5.4 Further information – suppress gases and vapours with a spray jet. Prevent extinguishing water from contaminating surface water

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area. 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 – pick up and arrange disposal without creating dust. Sweep and shovel up. Keep in suitable closed containers for disposal.

6.4 Reference to other sections - For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Store in -20 °C. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: room temperature.

Storage class (TRGS510): 11 : combustible solids.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls - Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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).

Skin protection - Handle with gloves. Gloves must be inspected prior to use.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

Body Protection - Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance - Form: powder, yellow
- b) Odour - no data available
- c) Odour Threshold - no data available
- d) Melting point/range: 220 - 223 °C
- e) Initial boiling point and boiling range - no data available
- f) Flammability (solid, gas) - no data available
- g) Upper/lower flammability or explosive limits - no data available
- h) Flash point – not applicable
- i) Autoignition temperature - no data available
- j) Decomposition temperature - 214 °C
- 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: no data available.

- o) Vapour pressure - no data available
 - p) Density - no data available
 - Relative density – no data available
 - q) Relative vapour density - no data available
 - r) Particle characteristics - no data available
 - s) Explosive properties – not classified as explosive
 - t) Oxidizing properties - no data available
- 9.2 Other safety information - no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

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). May discolour on exposure to light.

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

In the event of fire see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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

Causes serious eye irritation

Respiratory or skin sensitization

May cause allergic skin reaction.

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

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.

RTECS: Q19100000

Phototoxic reactions, Gastrointestinal disturbance, yellowing of teeth, reduced mineralization
Liver - Irregularities - Based on Human Evidence

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish – LC50 – *Salvelinus namaycush* (Lake trout, siscowet) – 220mg/l – 96h (US-EPA)

Toxicity to *Daphnia* and other aquatic invertebrates – static test EC50 – *Daphnia magna* (water flea) - > 340 mg/l – 48h (OECD Test Guideline 202)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Tetracycline

12.2 Persistence and degradability –

Biodegradability: aerobic – exposure time 28d

Result: 0% - not readily biodegradable. (OECD Test Guideline 301B)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Tetracycline

12.3 Bio-accumulative 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, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (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

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself according to notice directive on waste 2008/98/EC.

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 (TETRACYCLINE HYDROCHLORIDE)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (TETRACYCLINE HYDROCHLORIDE)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (TETRACYCLINE HYDROCHLORIDE)

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA:9

14.4 Packaging group

ADR/RID: III

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

Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation: Seveso III: Directive 2012/18EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

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

Text of H-code(s) and R-phrases(s) mentioned in Section 2 and 3

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.

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P305+P351+P338 if in EYES remove contact lenses and rinse with water. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention

Further information

WARRANTY

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.

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APPENDIX

ABBREVIATIONS FULL TEXT

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ALARP As low as is reasonably practicable
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulations
COSHH Control of Substances Hazardous to Health EC Number European Community Number
EC50 Effective Concentration 50%
ECHA European Chemicals Agency
ELINCS European List of Notified Chemical Substances
EINECS European Inventory of Existing Commercial Chemical Substances GHS Globally Harmonised System HSE
Health & Safety Executive UK
IATA International Air Transport Association
IM Intramuscular
IMDG The International Maritime Dangerous Goods Code
IP Intraperitoneal
IV Intravascular
LD50 Lethal Dose 50%
LOEC Lowest Observable Effective Concentration
LTEL Long Term Exposure Limit
NOEC No Observable Effective Concentration
OECD Organisation for Economic Cooperations and Development
OSHA European Agency for Safety and Health at work
PBT Persistent Bioaccumulative and Toxic substance
PPE Personal Protective Equipment
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC Subcutaneous
SDS Safety Data Sheet
SIEF Substance Information Exchange Forum
STEL Short Term Exposure Limit
STOT (RE) Specific Target Organ Toxicity – repeated exposure
STOT (SE) Specific Target Organ Toxicity – single exposure
SVHC Substance of Very High Concern
VOC Volatile Organic Compounds
vPvB Very Persistent and Very Bioaccumulative
WEL Workplace Exposure Limits