1. Identification of the substance/preparation and of the company

1.1 Product identifier

Product Name: Doxycycline hyclate

Catalogue Number: M3147
CAS Number: 24390-14-5
EC Number: -
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 a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.
Application of the substance/the preparation
Laboratory chemical
Chemical analytics
Biochemistry

1.3 Details of the supplier of the safety data sheet

Manufacturer /Supplier:
Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123, info@genaxxon.com

Further information available from: General Management
Emergency telephone number:
Poison Information Centre Mainz, Germany, Tel.: +49 (0)6131 19240 / 24 h

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

2. Hazardous identification

2.1 Classification of the substance/preparation/mixture

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4	H302	Harmful if swallowed.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit 2	H319	Causes serious eye irritation.
STOT SE 3	H335	May cause respiratory irritation.

Classification according to European Directive 67/548/EEC or Directive 1999/45/EC.
Xn; Harmful
R22 Harmful if swallowed.

Xi; Irritant
R36/37/38 Irritating to eyes, respiratory system and skin.
Information concerning particular hazards for human and environment: Not applicable.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
Pictogram(s)

GHS07

Signal word Warning

Hazard determining components of labelling:
Doxycycline hyclate
Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P305-P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

Result of PBT and vPvB assessment
PBT: not applicable

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vPvB: not applicable

3. Composition/information on ingredients

3.1 Chemical Characterization: Substances

Hazardous ingredients according to Regulation (EC) No. 1272/2008

Component		Classification	Concentration
Doxycycline hyclate			
CAS-No.	24390-14-5	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 H302, H315, H319, H335	<= 100%

Hazardous ingredients according to Directive 1999/45/EC

Component		Classification	Concentration
Doxycycline hyclate			
CAS-No.	24390-14-5	Xn; Xi R22, R36/37/38	<= 100%

4. First-aid measures

4.1 Description of first aid measures
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
After skin contact:
Wash off with plenty of water.
Immediately remove any clothing soiled by the product.
Seek medical treatment.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:
Rinse out mouth. Make victim drink water (maximum of 2 drinking glasses).
Seek medical treatment.
4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.
5.2 Special hazards arising from the substance or mixture:
Formation of toxic gases is possible during heating or in case of fire.
In case of a fire, the following can be released:
Carbon oxides (CO, CO2)
Nitrogen oxides (NOx)
Hydrogen chloride (HCl)
Phosgene gas
5.3 Advice for fire fighters:
Protective equipment:
Mouth respiratory protective device.
Wear self-contained respiratory protective device.
Additional information:
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid formation of dust.
Do not inhale dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid substance contact.
Ensure adequate ventilation.
6.2 Environmental precautions: Do not allow product to enter sewage system, surface or ground water.

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Discharge into the environment must be avoided.
6.3 Methods and materials for containment and cleaning up:
Pick up mechanically.
Avoid generation of dust.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Clean up affected area.
6.4 Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Additional information: None

7. Handling and storage

7.1 Precautions for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Any unavoidable deposit of dust must be regularly removed.
Open and handle receptacle with care.
Avoid contact with skin and eyes.
Prevent formation of dust.
Information about fire – and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Store only in the original receptacle.
Information about storage in one common storage facility: Do not store together with acids.
Further information about storage conditions:
Keep container tightly sealed.
Store under lock and key and with access restricted to technical experts or their assistants only.
Recommended storage temperature: +2°C - +8°C
Storage class: 10-13
7.3 Specific end use(s): No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls:
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with eyes and skin.
Store protective clothing separately.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Immediately remove all soiled and contaminated clothing.
Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Filter P3 (EN 14387).

Filter P3 (EN 14387)

Protection of hands:

Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:
Nitrile rubber, NBR
Recommended thickness of the material: ≥0.11 mm
Value for permeation: Level: >480 min.

As protection from splashes gloves made of the following materials are suitable:
Nitrile rubber, NBR
Recommended thickness of the material: ≥0.11 mm
Value for the permeation: Level ≥480 min.

Eye/face protection: Safety glasses

Safety glasses (EN 166)

Body protection:
Use protective suit.
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance

Form:	Solid
Colour:	Yellow
Odour:	Odourless
pH value at 20°C:	Not determined
Change in conditions	
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	Undetermined
Flash point:	Not applicable
Flammability (solid, gaseous):	Product is not flammable
Decomposition temperature:	Not determined
Self-ignition:	Product is not self-igniting
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not applicable
Density (20°C):	Not determined
Bulk density at 20°C:	Not determined
Solubility in / Miscibility with	
(water, 20°C):	Soluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not applicable
Kinematic:	Not applicable
Solvent content:	
Organic solvents:	0.0%

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VOC (EC)	0.00%
Solid content:	100.0%
Other information:	No further relevant information available.

10. Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions: No dangerous reactions known.
10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: In the event of fire: See chapter 5 of this data sheet.

11. Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
Primary irritant effect
on the skin: Irritant to skin and mucous membranes.
on the eye: Irritant effect.
After inhalation: Irritant to skin and mucous membranes.
Sensitization: No sensitizing effects known.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
Additional toxicological information: -
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
The product should be treated with usual precautions while handling chemicals.

12. Ecological Information

12.2 Persistence and degradability: No further relevant information available.
12.3 Bioaccumulative potential: No further relevant information available
12.4 Mobility in soil: No further relevant information available
Additional ecological information
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow to enter waters, waste water, or soil.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable
12.6 Other adverse effects: No further relevant information available.

13. Disposal considerations

13.1 Waste treatment methods
Recommendation:
Chemicals must be disposed of in compliance with the respective national regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Recommended cleaning agents: Water, if necessary together with cleansing agents.

14. Transport information

14.1 UN-Number	
ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name	
ADR; ADN, IMDG, IATA:	Void
14.3 Transport hazard class(es):	
ADR, ADN, IMDG, IATA class:	Void
14.4 Packing group:	
ADR, IMDG, IATA	Void

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14.5 Environmental hazards
Marine pollutant: No

14.6 Special precautions for user: Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC-Code Not applicable

Transport/Additional information: Not dangerous according to the above specifications

UN „Model Regulation“: - - -

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
No further relevant information available.
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been 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. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product.

Disclaimer
This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

ACAO-TI: Technical Instructions by the “International Civil Aviation Organization” (ICAO).
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
CAS: Chemical Abstracts Service (division of the American Chemical Society).
EINECS: European Inventory of Existing Commercial Chemical Substances.
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany).
GHS: Globally Harmonized System of Classification and labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulations by the “International Air Transport Association” (IATA).
ICAO: International Civil Aviation Organization.
IMDG: International Maritime code for Dangerous Goods.
LC50: Lethal concentration, 50 percent.
LD50: Lethal dose, 50 percent.
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).
VOC: Volatile Organic Compounds (USA, EU).
Acute Tox. 4: Acute toxicity, Hazard Category 4.
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2.
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2.
STOT SE 3: Specific target organ toxicity – Single exposure, Hazard Category 3.