

# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2023  
Date Updated: February 01, 2023

## SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----

<b>Product Name</b>	Doxycycline, hydrochloride
<b>Product Code(s)</b>	DB0889
<b>Recommended Use</b>	For Laboratory Research Use Only Not for Human or Animal Drug Use
<b>Supplier</b>	Bio Basic Inc.
<b>Address</b>	20 Konrad Crescent, Markham, Ontario, Canada, L3R 8T4
<b>Telephone</b>	(905) 474 4493
<b>Fax</b>	(905) 474 5794
<b>For Chemical Emergency Phone#</b>	(416) 995 9730

## SECTION 2. ----- HAZARDS IDENTIFICATION -----

### Classification of the substance or mixture

**GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17) and  
Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302  
Skin irritation (Category 2), H315  
Eye irritation (Category 2), H319  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Long-term (chronic) aquatic hazard (Category 3), H412

### Label elements



Pictogram

Signal word                      Warning

### Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statement(s)

P201                      Obtain special instructions before use.

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water.
P302 + P352	
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338	F 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.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

- none

**SECTION 3. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -**

Chemical Name	EC No.	CAS-No	Weight %
Doxycycline, hydrochloride, hemiethanolate, hemihydrate	-	24390-14-5	<100

**SECTION 4. - - - - - FIRST-AID MEASURES - - - - -**

**Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labeling (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

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder.

#### Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

#### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### Environmental precautions

Do not let product enter drains.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### Reference to other sections

For disposal see section 13.

## SECTION 7. ----- HANDLING AND STORAGE-----

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 11: Combustible Solids

### Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

## SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

### Control parameters

### 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

Safety glasses with side-shields conforming to EN166 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. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. 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.

### **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 r (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 - - - - -**

### **Information on basic physical and chemical properties**

- |   |                                |
|---|--------------------------------|
| a) Appearance                                   | Form: powder<br>Colour: yellow |
| b) Odour  | No data available              |
| c) Odour Threshold                              | No data available              |
| d) pH   | No data available              |
| e) Melting point/freezing point                 | No data available              |
| f) Initial boiling point and boiling range      | No data available              |
| g) Flash point                                  | No data available              |
| h) Evaporation rate                             | No data available              |
| i) Flammability (solid, gas)                    | No data available              |
| j) Upper/lower flammability or explosive limits | No data available              |
| k) Vapour pressure                              | No data available              |
| l) Vapour density                               | No data available              |
| m) Relative density                             | No data available              |
| n) Water solubility                             | No data available              |
| o) Partition coefficient: n-octanol/water       | No data available              |
| p) Auto-ignition temperature                    | No data available              |
| q) Decomposition temperature                    | No data available              |
| r) Viscosity                                    | No data available              |
| s) Explosive properties                         | No data available              |

t) Oxidizing properties      No data available

**Other safety information**

No data available

**SECTION 10. -----STABILITY AND REACTIVITY -----**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas

In the event of fire: see section 5

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

**Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Mouse - 1,007 mg/kg

Remarks: (RTECS)

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

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

Remarks: Causes skin irritation.

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

**Serious eye damage/eye irritation**

Remarks: Causes serious eye irritation.

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

**Respiratory or skin sensitisation**

No data available.

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available.

**Reproductive toxicity**

Suspected of damaging the unborn child.

Suspected of damaging fertility.

**Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.  
The value is given in analogy to the following substances: Tetracycline hydrochloride.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Q18925000

Narcosis, Damage to the heart.

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 daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 156.14 mg/l - 48 h

Remarks: The value is given in analogy to the following substances: Doxycycline

Toxicity to algae

static test ErC50 - Chlorella vulgaris (Fresh water algae) - 15.2 mg/l - 48 h

Remarks: The value is given in analogy to the following substances: Doxycycline

**Persistence and degradability**

No data available.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**Other adverse effects**

no data available

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

**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 unclean containers like the product itself.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**SECTION 15. ----- REGULATORY INFORMATION -----**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**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.

**SECTION 16. ----- OTHER INFORMATION -----**

Further information: no limited for paper copy, just for internal uses.  
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**Issuing Date:** 01-Aug-2019

**End of SDS**