

# SAFETY DATA SHEET:

## Stemolecule Doxycycline Hyclate



### 1. IDENTIFICATION

- |                            |   |
|----------------------------|---|
| 1.1. Product name          | Stemolecule™ Doxycycline Hyclate  |
| 1.2. Catalog number        | 04-0016   |
| 1.3. Uses and restrictions | For research use only. Not for use in diagnostic or therapeutic applications  |
| 1.4. Manufacturer/Supplier | REPROCELL USA<br>9000 Virginia Manor Road<br>Beltsville, MD 20705<br>301-470-3362   |
| 1.5. In case of emergency  | <ul style="list-style-type: none"><li>• For medical emergencies, contact your local emergency center.</li><li>• For transportation emergencies, contact your local transportation authorities.</li><li>• For other non-medical or non-environmental emergencies please call (617) 245-0030, 8:00 am-4:00 pm EST, Monday – Friday.</li></ul> |

### 2. HAZARDS IDENTIFICATION

- |   |   |
|---|---|
| 2.1. GHS classification according to Annex II | <ul style="list-style-type: none"><li>• Acute toxicity, Oral (Category 4), H302</li><li>• Skin irritation (Category 2), H315</li><li>• Eye irritation (Category 2A), H319</li><li>• Specific target organ toxicity – single exposure (Category 3), Respiratory System, H335</li></ul> |
|---|---|

2.2. Signal word

Warning

2.3. Symbol



2.4. Hazard statement(s)

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

2.5. Precautionary statement(s)

- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P280: Wear protective gloves / eye protection / face protection.



- P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P321: Specific treatment (see supplemental first aid instructions on this label).
- P330: Rinse mouth.
- P332 + P313: If skin irritation occurs: Get medical advice / attention.
- P337 + P313: If eye irritation persists: Get medical advice/attention.
- P362: Take off contaminated clothing and wash 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.

2.6. Hazards not otherwise classified (HNOC) or not covered by GHS

None

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical name	Stemolecule™ Doxycycline hyclate
3.2 Synonyms	Doxycycline hydrochloride hemimethanolate hemihydrate
3.3 Chemical formula	$C_{22}H_{24}N_2O_8 \cdot HCl \cdot 1/2 (H_2O) \cdot 1/2 (C_2H_6O)$
3.4 Molecular weight	512.94 g/mol
3.5 CAS number	24390-14-5

### 4. FIRST AID MEASURES

#### 4.1 First aid instructions

- General advice  
Move out of exposure area. Consult a physician.
- Eyes  
Check for and remove contact lenses immediately. Flush thoroughly with water for at least 15 minutes. Call a physician.



- Skin  
Immediately flush skin with copious amounts of water. Remove contaminated clothing and shoes and wash before use. Contact a physician
  - Ingestion  
If swallowed, wash mouth out with water provided the victim is conscious. Do not induce vomiting. Loosen tight clothing. Contact a physician.
  - Inhalation  
If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, call a physician.
  - Puncture wounds  
Wash thoroughly with soap and water. Allow wound to bleed freely. Contact a physician
- 4.2 Most important symptoms/effects, acute and immediate  
Described in section 2.
- 4.3 Indications of immediate medical attention and special treatment needed  
No data available.

## 5. FIRE FIGHTING MEASURES

- 5.1 Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
- 5.2 Specific hazards arising from the chemical  
Carbon oxides, nitrogen oxides, hydrogen chloride gas
- 5.3 Special protective equipment and precautions for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures  
Wear protective equipment (Section 8). Avoid dust formation. Avoid breathing vapours, mist, gas, or dust. Ensure adequate ventilation.
- 6.2 Environmental precautions  
Do not let product enter drains.
- 6.3 Methods and materials for containment and clean up  
Sweep into an appropriate container. Avoid raising dust. Ensure complete closure of container. Ventilate area and wash spill site after material pickup is complete. Dispose waste following proper disposal method (see section 13).

## 7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling
- Avoid inhalation, contact with eyes, skin, and clothing.
  - Avoid prolonged or repeated exposure.
  - Provide appropriate exhaust ventilation at places where dust formed.
  - For other precautions see section 2.5.
- 7.2. Conditions for safe storage, including any incompatibilities  
Keep tightly closed. Store at 4 °C or lower, protected from light.



**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters	No known occupational exposure limits values.
8.2 Appropriate engineering controls	Safety shower and eye wash. Mechanical exhaust required.
8.3 Protection measures and personal protective equipment	Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling.
• Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EN 143) respirator cartridges.
• Eye protection	Chemical safety goggles.
• Skin protection	Protective gloves and lab coat. Use nitrile rubber gloves with a minimum thickness of 0.11 mm.

**9. PHYSICAL/CHEMICAL PROPERTIES**

9.1 Appearance	Yellow to green powder.
9.2 Odor	No data available.
9.3 Odor threshold	No data available.
9.4 pH	No data available.
9.5 Melting point / freezing point	No data available.
9.6 Initial boiling point and boiling range	No data available.
9.7 Flash point	No data available.
9.8 Evaporation rate	No data available.
9.9 Flammability (solid, gas)	No data available.
9.10 Upper/lower flammability or explosive limits	No data available.
9.11 Vapor pressure	No data available.
9.12 Vapor density	No data available.
9.13 Relative density	No data available.
9.14 Solubility(ies)	100 mM in dimethylsulfoxide, 100 mM in water
9.15 Partition coefficient: n-octanol/water	No data available.
9.16 Auto-ignition temperature	No data available.
9.17 Decomposition temperature	No data available.
9.18 Viscosity	No data available.
9.19 Explosive properties	No data available.
9.20 Oxidizing properties	No data available.



**10. STABILITY/REACTIVITY**

10.1 Reactivity	No data available.
10.2 Chemical stability	Decomposes on exposure to light. Stable under recommended storage conditions.
10.3 Possible of hazardous reactions	No data available.
10.4 Conditions to avoid	No data available.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	No data available.

**11. TOXICOLOGICAL INFORMATION**

11.1 Toxicological effects	
• Acute toxicity	No data available.
• Skin corrosion / irritation	• No data available.
• Serious eye damage / eye irritation	• No data available.
• Respiratory or skin sensitization	• No data available.
• Germ cell mutagenicity	• No data available.
• Carcinogenicity	• IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen. • ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen. • NTP: No components of the product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen. • OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
• Reproductive toxicity	No data available.
• Specific target organ toxicity – single exposure	No data available.
• Specific target organ toxicity – repeated exposure	No data available.
• Aspiration Hazard	No data available.
11.2 Symptoms related to the physical, chemical and toxicological characteristics	No data available.
11.3 Effects of short-term exposure.	No data available.
11.4 Effects of long-term exposure	No data available.
11.5 Numerical measures of toxicity	No data available.



11.6 Other information  
Narcosis, damage to heart.  
Liver – Irregularities – Based on human evidence.

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity  
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

12.2 Persistence and degradability  
No data available.

12.3 Bioaccumulative potential  
No data available.

12.4 Mobility in soil  
No data available.

12.5 Results of PBT and vPvB assessment  
No data available.

12.6 Other adverse effects  
No data available.

## 13. DISPOSAL CONSIDERATIONS

13.1 Disposal method  
Offer surplus and non-recyclable solutions to a licensed disposal company. Empty containers and waste material should be transported/delivered using a registered waste carrier for recycling or waste disposal in accordance with local regulations.

13.2 Personal safety  
Refer to section 8.

## 14. TRANSPORT INFORMATION

- DOT (US) Not dangerous goods.
- IMDG Not dangerous goods
- IATA Not dangerous goods
- ADR/RID Not dangerous goods.

## 15. REGULATORY INFORMATION

U.S. Federal Regulations

- SARA 313 components  
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.
- SARA 302 components  
Does not contain any components subject to reporting.
- SARA 311/312 Hazards  
Does not contain any components subject to reporting
- Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see CFR 61)  
Does not contain any components subject to reporting.

U.S. State Regulations

- California Proposition 65  
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.: Doxycycline, hydrochloride, hemiethanolate, hemihydrate



- Massachusetts Right to Know Components Does not contain any components subject to reporting.
  - Pennsylvania Right to Know Components Doxycycline, hydrochloride, hemiethanolate, hemihydrate, CAS No. 24390-14-5
  - New Jersey Right to Know Components Doxycycline, hydrochloride, hemiethanolate, hemihydrate, CAS No. 24390-14-5
- WHMIS Hazard Class D2B: Toxic material causing other toxic effects.

This SDS was prepared in accordance with 29 CFR 1910.1200, and Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

## 16. OTHER INFORMATION

### Notice

The information in this Safety Data Sheet is believed to be correct at the date of publication, but it 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. REPROCELL, Inc. shall not be held liable for any damage resulting from handling or from contact with the product. See REPROCELL, Inc. website for terms and conditions of sale.

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Prepared By

Quality Control

**END OF SAFETY DATA SHEET**

