

SAFETY DATA SHEET

1. Identification

Product Identifier: Doxycycline Hyclate Capsules, USP

Synonyms: Doxycycline hydrochloride hemiethanolate hemihydrate

National Drug Code (NDC): 61748-111-14

Recommended Use: Pharmaceutical.

Company: Akorn, Inc.
1925 West Field Court, Suite 300
Lake Forest, Illinois 60045

Contact Telephone: 1-800-932-5676

E mail: customer.service@akorn.com

Emergency Phone Number: CHEMTREC 1-800-424-9300 (U.S. and Canada)

2. Hazard(s) Identification

Physical Hazards: Not classifiable.

Health Hazards: Not classifiable.

Symbol(s): None.

Signal Word: None.

Hazard Statement(s): None.

Precautionary Statement(s): None.

Hazards Not Otherwise Classified: Not classifiable.

Supplementary Information: While this material is not classifiable as hazardous under the OSHA standard, this SDS contains valuable information critical to safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

3. Composition/Information on Ingredients

Chemical Name	CAS Number	Synonyms	Chemical Formula	Molecular Weight	Percentage
2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-, monohydrochloride, compound with ethanol (2:1), monohydrate, [4S-(4alpha, 4a alpha, 5alpha, 5a alpha, 6alpha, 12a alpha)]-	24390-14-5	Doxycycline hydrochloride hemiethanolate hemihydrate	$C_{22}H_{24}N_2O_8 \cdot H_2O$	462.46	5% and 10%

*The formula also contains Lactose Monohydrate, Microcrystalline Cellulose, Magnesium Stearate.

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50 mg gelatin capsule shell contains: FD&C Blue #1, Silicon Dioxide, Sodium Lauryl Sulfate and Titanium Dioxide.

100 mg gelatin capsule shell contains: FD&C Blue #1, silicon dioxide, Sodium Lauryl Sulfate and Titanium Dioxide. The printing ink contains: D&C Yellow #10, FD&C Blue #1, FD&C Blue #2, FD&C Red #40, n-Butyl Alcohol, Pharmaceutical Glaze, Propylene Glycol, SDA-3A Alcohol and Synthetic Black Iron Oxide.

4. First Aid Measures

Ingestion:

If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth with water. If swallowed, seek medical advice immediately and show the container or label. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Eye Contact:

Remove from source of exposure. Flush with copious amounts of water for at least 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. Ensure that medical personnel are aware of the material(s) involved and are aware of precautions to protect themselves.

Skin Contact:

Remove from source of exposure. Remove and isolate contaminated clothing and shoes. Flush with copious amounts of water for at least 20 minutes. Use soap. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. Ensure that medical personnel are aware of the material(s) involved and are aware of precautions to protect themselves.

Inhalation:

Remove from source of exposure. Move individual(s) to fresh air. Give artificial respiration if individual(s) are not breathing and call emergency medical service. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. Ensure that medical personnel are aware of the material(s) involved and are aware of precautions to protect themselves.

Protection of First-Aiders:

Use personal protective equipment (see section 8).

Signs and Symptoms:

Due to oral doxycycline's virtually complete absorption, side effects of the lower bowel, particularly diarrhea, have been infrequent. The following adverse reactions have been observed in patients receiving tetracyclines:

Gastrointestinal: anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, and inflammatory lesions (with monilial overgrowth) in the anogenital region. Hepatotoxicity has been reported rarely. These reactions have been caused by both the oral and parenteral administration of tetracyclines. Rare instances

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of esophagitis and esophageal ulcerations have been reported in patients receiving capsule and tablet forms of the drugs in the tetracycline class. Most of these patients took medications immediately before going to bed

Medical Conditions Aggravated by Exposure:

Not determined.

Notes to Physician:

Treat supportively and symptomatically.

5. **Firefighting Measures**

Suitable Extinguishing Media:

Use extinguishing media for type of surrounding fire.

Unsuitable Extinguishing Media:

Not determined.

Specific Hazards Arising from the Chemical:

Hazardous Combustion Products:

No data available.

Other Specific Hazards:

Closed containers may explode from the heat of fire.

Special Protective Equipment/Precautions for Firefighters:

Wear self-contained breathing apparatus and full and protective gear.

6. **Accidental Release Measures**

Personal Precautions:

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate personal protective equipment and clothing.

Personal Protective Equipment:

For personal protection see section 8.

Methods for Cleaning Up:

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. Wash spill site.

Environmental Precautions:

Contain material and prevent release to basements, confined spaces, waterways or soil.

Reference to Other Sections:

Refer to Sections 8, 12 and 13 for further information.

7. **Handling and Storage**

Precautions for Safe Handling:

Handle in accordance with product label and/or product insert information. Handle in accordance with good industrial hygiene and safety practices.

Conditions for Safe Storage, Including Any Incompatibilities:

Store according to label and/or product insert information. Store away from oxidizers, acids, and bases.

Specific End Use:

Pharmaceuticals.

8. Exposure Controls/Personal Protection**Occupational Exposure Guidelines:**

Common or Chemical Name	Employee Exposure Limits
Doxycycline Hyclate	250 mcg/m ³ TWA

Engineering Controls:

Engineering controls should be used as the primary means to control exposures.

Respiratory Protection:

Where respirators are deemed necessary to reduce or control occupational exposures, use NIOSH-approved respiratory protection and have an effective respirator program in place (applicable U.S. regulation OSHA 29 CFR 1910.134).

Eyes Protection:

Safety glasses with side shields are recommended. Face shields or goggles may be required if splash potential exists or if corrosive materials are present. Approved eye protection (e.g., bearing the ANSI Z87 or CSA stamp) is preferred. Maintain eyewash facilities in the work area.

Hand Protection:

Chemically compatible gloves are recommended. For handling solutions, ensure that the glove material is protective against the solvent being used. Use handling practices that minimize direct hand contact. Employees who are sensitive to natural rubber (latex) should use nitrile or other synthetic non-latex gloves. Use of powdered latex gloves should be avoided due to the risk of latex allergy.

Skin Protection:

Wear protective laboratory coat, apron, or disposable garment when working with large quantities.

9. Physical and Chemical Properties**Physical State/Color:**

Blue/Blue Opaque capsule.

Odor:

No data available.

Odor Threshold:

No data available.

pH:

No data available.

Melting Point:

No data available.

Freezing Point:

No data available.

Boiling Point:

No data available.

Flash Point:

No data available.

Evaporation Rate:

No data available.

Flammability (solid, gas):

No data available.

Flammability Limit - Lower:

No data available.

Flammability Limit - Upper:

No data available.

Vapor Pressure:

No data available.

Vapor Density:

No data available.

Relative Density:

No data available.

Solubility(ies):

No data available.

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Partition Coefficient (n-octanol/water): No data available.
Auto-Ignition Temperature: No data available.
Decomposition Temperature: No data available.
Viscosity: No data available.

10. Stability and Reactivity

Reactivity: No reactivity hazards known.
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.
Conditions to Avoid (e.g., static discharge, shock, or vibration): None known.
Incompatible Materials: Oxidizers, acids, bases.
Hazardous Decomposition Products: NOx. Cl-. Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

11. Toxicological Information

Information on the Likely Routes of Exposure:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion: May harmful if swallowed.
Skin Contact: May be harmful if absorbed through the skin. May cause irritation.
Eye Contact: May cause eye irritation.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics: See Section 4. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
Delayed and Immediate Effects of Exposure: No data available.
Acute Toxicity:

Compound	Species	Route	Test Type	Dose
Doxycycline Hyclate	Rat	Oral	LD ₅₀	1,700 mg/kg
Doxycycline Hyclate	Mouse	Oral	LD ₅₀	1,890 mg/kg
Doxycycline Hyclate	Dog	Oral	LD ₅₀	>500 mg/kg

Acute Toxicity – Dermal: No data available.
Acute Toxicity – Inhalation: No data available.

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Corrosivity:	No data available.
Dermal Irritation:	No data available.
Eye Irritation:	No data available.
Sensitization:	No data available.
Toxicokinetics/Metabolism:	No data available.
Target Organ Effects:	No data available.
Reproductive Effects:	Pregnancy Category D.
Carcinogenicity:	No data available.
National Toxicology Program (NTP):	Not considered to be a carcinogen.
International Agency for Research on Cancer (IARC):	Not considered to be a carcinogen.
Occupational Safety and Health Administration (OSHA):	Not considered to be a carcinogen.
Mutagenicity:	No data available.
Aspiration Hazard:	No data available.

12. Ecological Information

Ecotoxicity

Aquatic:	No data available.
Terrestrial:	No data available.
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.
Mobility in Environment:	No data available.
Other Adverse Effects:	No data available.

13. Disposal Considerations

Dispose of all waste in accordance with Federal, State and Local regulations.

14. Transport Information

UN Number:	Not applicable.
UN Proper Shipping Name:	Not applicable.
Transport Hazard Class(es):	Not applicable.
Packing Group:	Not applicable.
Department of Transportation:	Not regulated as a hazardous material.
International Air Transport Association (IATA):	Not regulated as a dangerous good.
International Maritime Dangerous Good (IMDG):	Not regulated as a dangerous good.

15. Regulatory Information**US Federal Regulations:****Toxic Substance Control Act (TSCA):**

This product is a drug regulated by the Food and Drug Administration (FDA), and is not regulated by TSCA.

CERCLA Hazardous Substance and Reportable Quantity:

Not listed.

SARA 313:

Not listed.

SARA 302:

Not listed.

State Regulations**Massachusetts:**

Not listed.

New Jersey:

Not listed.

Pennsylvania:

Not listed.

California Proposition 65:

Listed. (Doxycycline Hyclate) contains a chemical known to the State of California to cause birth defects or other reproductive harm.

16. Other Information

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