Tetracycline hydrochloride (aqueous) 

**Overview**

**Product name**  
Tetracycline hydrochloride (aqueous)

**Description**  
Broad spectrum antibiotic.

**Biological description**  
Broad spectrum polyketide antibiotic with clinical uses in treating bacterial infections such as Rocky Mountain spotted fever, typhus fever, tick fevers, Q fever, and Brill-Zinsser disease and to treat upper respiratory infections and acne.

Tetracycline passively diffuses through protein channels in the cell membrane, binding to 30S ribosomes and inhibits protein synthesis by preventing access of aminoacyl tRNA to the acceptor site on the mRNA-ribosome complex. It also binds to the bacterial 50S ribosomal subunit, altering the membrane and causing intracellular components to leak from bacterial cells.

**Properties**

**Molecular weight**  
480.90

**Chemical structure**

![Chemical structure diagram](image)

**Molecular formula**  
C\(_{22}\)H\(_{25}\)ClN\(_2\)O\(_8\)

**CAS Number**  
64-75-5

**Storage instructions**  
Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.

**Solubility overview**  
Supplied in water (50 mg/ml)

**Handling**

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions (FAQ) page](#) for more details.

**Source**

Synthetic
Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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