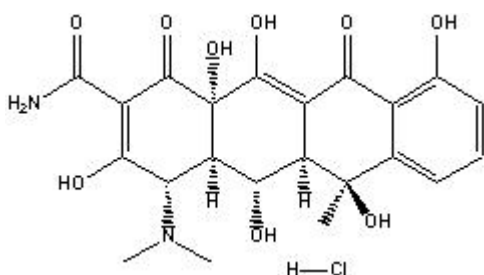


TECHNICAL INFORMATION

Catalog Number: 150145
Oxytetracycline Hydrochloride

Structure:



Molecular Formula: C₂₂H₂₄N₂O₉·HCl

Molecular Weight: 496.9

CAS # : 2058-46-0

Synonyms: Hydroxytetracycline Hydrochloride; [4S-(4a,4aa,5a,5aa,6b,12aa)]-4- (Dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide; Glomycin; Riomitsin

Physical Description: Yellow solid

Solubility: Very soluble in water (1 g/ml). Concentrated aqueous solutions at neutral pH hydrolyze on standing and deposit crystals of oxytetracycline. Soluble in absolute ethanol. Aqueous solutions at pH 1.0 to 2.5 are stable for at least 30 days at 25°C; pH 3.0-9.0 show no detectable loss in potency on storage at 5°C for at least 30 days.¹

Description: Antibiotic substance isolated from the elaboration products of the actinomycete, *Streptomyces rimosus*.² Half-life in hours of aqueous oxytetracycline solutions at 37°C: pH 1.0 = 114; pH 2.5 = 134; pH 4.6 = 45; pH 5.5 = 45; pH 7.0 = 26; pH 8.5 = 33; pH 10.0 = 14.¹

Note: Stability: Oxytetracycline hydrochloride crystals show <5% inactivation after 4 months at 56°C.

References:

- *Merck Index*, 12th Ed., No. 7111.
- Finlay, et al., *Science*, v. 111, 85 (1950).
- Regna, Solomons, *Ann. N.Y. Acad. Sci.*, v. 53, 221 (1950)
- Regna, et. al., *J. Am. Chem. Soc.*, v. 73, 4211 (1951).
- Hochstein, et al., *J. Am. Chem. Soc.*, v. 74, 3708 (1952).