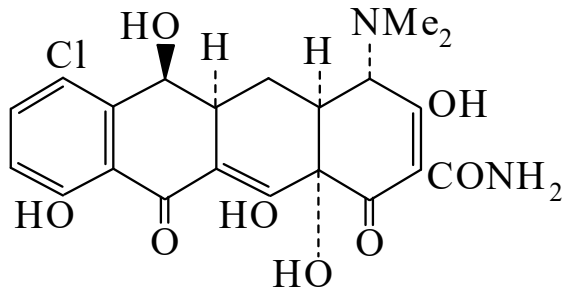
>>**Entry Name: Demeclocycline,** BAN, INN
Synonym(s): 7-Chloro-4-dimethylamino-1,4,4*a*,5,5*a*,6,11,12*a*-octahydro-3,6,10,12,12*a*-pentahydroxy-1,11-dioxonaphthacene-2-carboxamide, 9Cl. 6-Demethyl-7-chlorotetracycline. Ledermycin. Declomycin. Bioterciclin. Deganol. Pericicline. RP 10192. Many other names



CAS Registry Number: 127-33-3

Molecular Formula: $C_{21}H_{21}ClN_2O_8$
Molecular Weight: 464.858
Accurate Mass: 464.098645
Percentage Composition: C 54.26%; H 4.55%; Cl 7.63%; N 6.03%; O 27.53%
General Statement: Tetracycline antibiotic
Biological Source: Prod. by a mutant strain of *Streptomyces aureofaciens*
Use/Importance: Clinically used antibacterial agent. Activity similar to Aureomycin CKR88-Y but more stable
Physical Description: Sesquihydrate
Melting Point: Mp 174-178 dec.°
Optical Rotation: $[\alpha]_D^{25}$ –258 (c, 0.5 in 0.1*N* H_2SO_4)
Solubility: BERDY SOL: Sol. MeOH, bases, butanol, acids; fairly sol. Me_2CO, Et_2O, $CHCl_3$
Calculated Log P Data: Log P –1.55 (calc)
UV: [neutral] λ_{max} 227 (E1%/1cm 357); 268 (E1%/1cm 362); 368 (E1%/1cm 249) (MeOH) (Berdy)
Other Data: Useful starting material for semisynthetic tetracyclines
Hazard & Toxicity: Adverse effects reported when used therapeutically incl. gastrointestinal disturbances, skin effects, hepatotoxicity and photosensitivity; deposited in bones and teeth. LD_{50} (rat, orl) >6750 mg/kg. LD_{50} (rat, ipr) 358 mg/kg. Exp. reprod. and teratogenic effects ; BERDY HAZD : LD_{50} (mus, ivn) 140 mg/kg

>>**Derivative:** Hydrochloride
Synonym(s): Demeclocycline hydrochloride, USAN. Demetracicline. Detravis. Meciclin. Mexocine. Clortetrin

CAS Registry Number: 64-73-3
Hazard & Toxicity: LD_{50} (rat, orl) 2372 mg/kg. Human renal and reprod. effects when used therapeutically

Fluka: 30910
Sigma: D6140

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