



Formula: C₂₂H₂₅ClN₂O₉

MW: 496.9

CAS: 2058-46-0

TNP NUMBER: TNP00363

MDL NUMBER: MFCD00135815

IUPAC: (4S,5S,6S,12aS,4aR,5aR)-4-(dimethylamino)-3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-4,5,6,12a,4a,5a-hexahydronaphthacene-2-carboxamide, chloride

Smiles:

C1(C(=O)N)=C([C@H]([C@H]2([C](C(O)=C3C(c4c(O)cccc4[C@]([C@@H]3([C@@H]2O)))(O)C)=O)(O)C1=O))N(C)C)O.Cl

Antibiotic, isolated from from elaboration product of actinomycete, *Streptomyces ramosus*; Oxytetracycline hydrochloride, can be used as secondary standard

THERAPEUTIC CATEGORY: Antibacterial

ACCEPTORS: 9

DONORS: 8

ROTATION BONDS: 4

N+O: 11

Chiral Centers: 6

LogP: -1.71

LogS: -3

LIPINSKI: 3

Synonyms:

10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-monohydrochloride;2-naphthacenecarboxamide,4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,5alpha,5alpha,6beta,12alpha)-aalph;6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-,mono-hydrochloride,[4s-(4alpha,4;biosolvomycin;engemycin;hydrocyclin;liquamycininjectable

CAS:2058-46-0

MF:C22H25ClN2O9

MW:496.89

EINECS:218-161-2

Product Categories:Amines;Chiral Reagents;Intermediates & Fine Chemicals;Pharmaceuticals;L - ZEPA;NeatsAntibiotics;TetracyclinesMore...Close...;1694 Pharmaceuticals&Personal Care Products;Antibacterial;Antibiotics;Antibiotics A to;Antibiotics by Application;Antibiotics N-SAntibiotics;Chemical Structure Class;Genetic Marker SelectionAntibiotics;Interferes with Protein SynthesisSpectrum of Activity;Mechanism of Action Oxytetracycline hydrochloride

Chemical Properties: mp 180C storage temp. 0-6C form crystalline color yellow Water Solubility >100 g/L Merck 13,7046

CAS DataBase Reference: 2058-46-0(

CAS DataBase Reference:) EPA Substance Registry System2-Naphthacenecarboxamide, 4-(dimethylamino)-1,4,4a,5, 5a,6,11,12a-octahydro-3,5, 6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-, mono-hydrochloride, (4S,4aR,5S,5aR,6S,12aS)-(2058-46-0) Xn,Xi Risk Statements 63-36-36/37/38 Safety Statements 36/37/39-26-36 WGK Germany 2 RTECS QI8225000 F 8-10-23 Oxytetracycline hydrochloride Oxytetracycline hydrochloride

Usage And Synthesis:

Chemical Properties: Yellow Crystalline Solid UsageAntibiotic substance isolated from the elaboration products of the actinomycete, Streptomyces rimosus, grown on a suitable medium.

Antibacterial General Description Odorless fluffy yellow solid or yellow powder. Bitter taste. Air & Water Reactions Oxytetracycline hydrochloride is hygroscopic. Water soluble. Undergoes slow hydrolysis in the presence of water. Concentrated aqueous solutions at neutral pH hydrolyze on standing. **Reactivity Profile** Oxytetracycline hydrochloride is sensitive to light. Oxytetracycline hydrochloride may be unstable at temperatures above 77 F. Oxytetracycline hydrochloride darkens on exposure to sunlight or to moist air above 194 F. Concentrated aqueous solutions at neutral pH hydrolyze on standing. Oxytetracycline hydrochloride undergoes hydrolysis in the presence of water. Oxytetracycline hydrochloride may be incompatible with alkalis. **Fire Hazard** Flash point data for Oxytetracycline hydrochloride are not available. Oxytetracycline hydrochloride is probably combustible. Oxytetracycline hydrochloride

