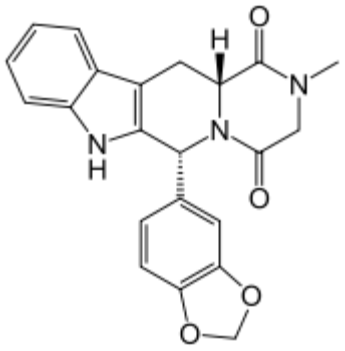

Figure 4: Chemical structure of tadalafil

Melting point for tadalafil is:

_ (6R,12aR)-()-Tadalafil (1); 302–303 _C

_ (6S,12aR)-()-Tadalafil (8); 286–288 _C (6-epi-tadalafil)

_ (6R,12aS)-(_)-Tadalafil (11); 295–296 _C (12a-epi-tadalafil)

Tadalafil Practically insoluble in water; very slightly soluble in ethanol. And it is a white crystalline powder. The Peak plasma concentration

378 ng/mL occurs 2 h postdose. Apparent volume of distribution (Vd/F)

62.6 L. Where apparent oral clearance is 2.48 L/h. And The mean elimination half-life

17.5 h.

Main physical charcteristics of tadalafil are :

- Dissociation Constants: pKa = 0.85.
- Octanol/Water Partition Coefficient : log Kow = 1.42 .
- Solubilities : In water, 220 mg/L at 25 deg C .
- Vapor Pressure : 2.2X 10^{-14} mm Hg at 25 deg C .
- Henry's Law constant = 5.0X 10^{-18} atm-cu m/mol at 25 deg C .