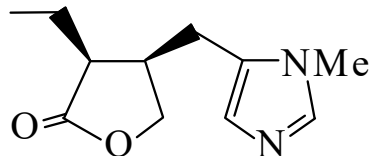




>>>Entry Name: Pilocarpine, BAN, USAN

Synonym(s): 3-Ethyl-2-methyl-2-(1-methyl-1*H*-imidazol-5-yl)-5-oxo-2,3-dihydrofuran, 9Cl. Syncarpine



**Molecular Formula:** C<sub>11</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 208.26

**Accurate Mass:** 208.121178

**Percentage Composition:** C 63.44%; H 7.74%; N 13.45%; O 15.36%

**Use/Importance:** Cholinergic muscarinic agonist used as a miotic, especially for glaucoma, and in the treatment of nephritis. Exp. convulsant. Used in animal models of epilepsy

**Calculated Log P Data:** Log P -0.2 (calc)

>>>Variant: (+)-form

**CAS Registry Number:** 92-13-7

**Molecular Formula:** C<sub>11</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 208.26

**Accurate Mass:** 208.121178

**Percentage Composition:** C 63.44%; H 7.74%; N 13.45%; O 15.36%

**Biological Source:** Alkaloid from *Pilocarpus microphyllus* and several other *Pilocarpus* spp. (Rutaceae)

**Melting Point:** Mp 34°

**Boiling Point:** Bp<sub>5</sub> 260°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> +100.5 (H<sub>2</sub>O)

**pKa Value:** pK<sub>a2</sub> 12.57 (20°)

**Hazard & Toxicity:** Adverse ocular effects reported when used therapeutically. LD<sub>50</sub> (rat, orl) 402 mg/kg

>>>Derivative: Hydrochloride

Synonym(s): Pilocarpine hydrochloride, USAN. Akarpine. Almocarpin. Pilomiotin. Pilopine VS. Pilovisc

**CAS Registry Number:** 54-71-7

**Physical Description:** Cryst. (EtOH)

**Melting Point:** Mp 204-205°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>18</sup> +91

**Other Data:** Component of Pilocar

**Hazard & Toxicity:** Human systemic effect from ocular administration. Adverse ocular effects reported when used therapeutically. LD<sub>50</sub> (mus, orl) 200 mg/kg, exp. reprod. and teratogenic effects

**Aldrich:** 14188-7

**Fluka:** 80475

**Sigma:** P6503

>>>Derivative: Picrate

**Melting Point:** Mp 159-160°

>>>Derivative: Nitrate

Synonym(s): Licarpin. Pilofrin. Pilagan

**CAS Registry Number:** 148-72-1

**Melting Point:** Mp 173-174° (dec.)

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub> +77

**Fluka:** 80477

**Sigma:** P6628