



Formula: C₁₅H₂₄N₂O

MW: 248.37

CAS: 519-02-8

TNP NUMBER: TNP00342

MDL NUMBER: MFCD07190068

IUPAC: (1R,9R,17R)-7,13-diazatetracyclo[7.7.1.0.0]heptadecan-6-one

Smiles: C1CC[C@H]2(C3CCCC(=O)N3C[C@@H]3[C@@H]2(N1CCC3))

SOURCE: Occurs naturally as (+)-form in Plant Sophora Flavescens

ACCEPTORS: 1

DONORS: 0

ROTATION BONDS: 0

N+O: 3

Chiral Centers: 4

LogP: 2.73

LogS: -4.04

LIPINSKI: 4

Monograph Number: 0005782

Title: Matrine

CAS Registry Number: 519-02-8

CAS Name: Matridin-15-one

Additional Names: sophocarpidine

Molecular Formula: C₁₅H₂₄N₂O

Molecular Weight: 248.36.

Percent Composition: C 72.54%, H 9.74%, N 11.28%, O 6.44%

Literature References: Occurs naturally as the (+)-form in the Chinese drug Kuh Seng or the Japanese Shinkyogan, the dried roots of *Sophora angustifolia* Sieb. & Zucc., *S. flavescens* Ait. and other *Sophora* spp., Leguminosae. Isomeric with lupanine, q.v. Isoln: Kondo, Arch. Pharm. 266, 1 (1928); Winterfeld, Knener, Ber. 64, 150 (1931); Orechov, Proskurnina, Ber. 67, 77 (1934); Briggs, Ricketts, J. Chem. Soc. 1937, 1795. Identity with sophocarpidine: Orechov et al., Ber. 68, 429 (1935). Alternate method of isoln: F. Bohlmann et al., Ber. 91, 2189 (1958). Structure: Tsuda, Murakami, Ber. 69, 429 (1936). Configuration: Bohlmann et al., Ber. 91, 2176 (1958). Absolute configuration: Okuda et al., Chem. Pharm. Bull. 14, 314 (1966); Cervinka, Z. Chem. 7, 190 (1967). Synthetic studies: Tsuda et al., J. Org. Chem. 21, 1481 (1956); 23, 1179 (1958). Synthesis of matridine (deoxymatrine): Mandell, Singh, J. Am. Chem. Soc. 83, 1766 (1961). Total synthesis of (