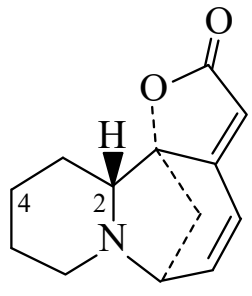
>>**Entry Name: Securinine,** INN
**Synonym(s):** Securinan-11-one, 9CI



()-*form*

**Molecular Formula:** $C_{13}H_{15}NO_2$
**Molecular Weight:** 217.267
**Accurate Mass:** 217.110279
**Percentage Composition:** C 71.87%; H 6.96%; N 6.45%; O 14.73%
**Calculated Log P Data:** Log P 0.21 (uncertain value) (calc)

>>**Variant:** (–)-form

**CAS Registry Number:** 5610-40-2
**Molecular Formula:** $C_{13}H_{15}NO_2$
**Molecular Weight:** 217.267
**Accurate Mass:** 217.110279
**Percentage Composition:** C 71.87%; H 6.96%; N 6.45%; O 14.73%
**Biological Source:** Alkaloid from the leaves, roots and stems of *Securinega suffruticosa* and *Phyllanthus discoides*, also isol. from *Securinega durissima, Securinega fluggeoides* and the bark of *Securidaca longepedunculata* (Euphorbiaceae, Leguminosae)
**Use/Importance:** Stereospecific $GABA_A$ receptor antagonist. CNS stimulant with strychnine-like activity but lower toxicity, causes respiratory stimulation, increased muscle tone and hypotension
**Physical Description:** Yellow cryst. (EtOH)
**Melting Point:** Mp 142-143°
**Optical Rotation:** $[\alpha]_D^{20}$ –1042 (c, 1.0 in EtOH)
**pKa Value:** p$K_a$ 7.17
**Hazard & Toxicity:** $LD_{50}$ (mus, orl) 270 mg/kg

**Sigma:** S3138

>>**Derivative:** Hydrobromide

**Physical Description:** Pale-yellow needles + $2H_2O$ ($Et_2O$)
**Melting Point:** Mp 250 dec.° (dehydrating range 110-120°)

>>**Derivative:** Picrolonate

**Melting Point:** Mp 194° (208°)

>>**Derivative:** Methiodide

**Melting Point:** Mp 235-236 dec.°
**Optical Rotation:** $[\alpha]_D^{20}$ –1953 (EtOH)

>>**Derivative:** 4-Hydroxy
**Synonym(s): 4-Hydroxysecurinine**

**CAS Registry Number:** 130969-00-5

**Molecular Formula:** $C_{13}H_{15}NO_3$
**Molecular Weight:** 233.266
**Accurate Mass:** 233.105194
**Percentage Composition:** C 66.94%; H 6.48%; N 6.00%; O 20.58%
**Biological Source:** Alkaloid from *Phyllanthus niruri* (Euphorbiaceae)
**Physical Description:** Gum

>>**Derivative:** Diastereoisomer

>>**Derivative:** 14,15-Dihydro