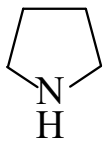
>>**Entry Name: Pyrrolidine,** 9CI, 8CI
ENTRY UNDER REVIEW
Synonym(s): Tetrahydropyrrole. Tetramethyleneimine. Azacyclopentane. FEMA 3523



CAS Registry Number: 123-75-1

Molecular Formula: C_4H_9N
Molecular Weight: 71.122
Accurate Mass: 71.073499
Percentage Composition: C 67.55%; H 12.75%; N 19.69%

Biological Source: Present in tobacco and carrot leaves (*Daucus carota*) (Umbelliferae). Widely distributed in trace amts., presumably as bacterial decarboxylation prod. of proline. Manuf. by catalytic reaction of NH_3 with tetrahydrofuran or butanediol
Use/Importance: Widely used org. base, used in the prep. of enamines. Reagent used in the ms detn. of the position of double bonds and of methyl branching in fatty acids
Physical Description: Liq. with odour resembling Piperidine HJM94-U
Melting Point: Fp –63°
Boiling Point: Bp 88.5-89°
Solubility: Misc. H_2O
Density: d_4^{20} 0.8618
pKa Value: pK_a 11.31 (25°)
Other Data: Fumes in air. Strongly alkaline
Hazard & Toxicity: Highly flammable, fl. p. 3°. Skin, eye and respiratory tract irritant. LD_{50} (rat, orl) 300 mg/kg

Aldrich: 39423-8
Fluka: 83241
Sigma: P2271

>>**Derivative:** Hemipicrate

Physical Description: Dark-red cryst.
Melting Point: Mp 163-164°

>>**Derivative:** Monopicrate

CAS Registry Number: 1689-56-1
Physical Description: Yellow needles (EtOH)
Melting Point: Mp 112°

>>**Derivative:** *N*-Formyl

>>**Derivative:** *N*-Ac

CAS Registry Number: 4030-18-6
Molecular Formula: $C_6H_{11}NO$
Molecular Weight: 113.159
Accurate Mass: 113.084064
Percentage Composition: C 63.69%; H 9.80%; N 12.38%; O 14.14%
Physical Description: Liq.
Boiling Point: Bp 224-225°

>>**Derivative:** *N*-Hexadecanoyl
Synonym(s): *N*-Hexadecanoylpyrrolidine. Hexadecanoic acid pyrrolidide. *N*-Palmitoylpyrrolidine. Alkaloid MQ-B_2

CAS Registry Number: 70974-48-0

Molecular Formula: $C_{20}H_{39}NO$
Molecular Weight: 309.534
Accurate Mass: 309.303164
Percentage Composition: C 77.61%; H 12.70%; N 4.53%; O 5.17%
Biological Source: Alkaloid from *Piper amalago*, *Ipomoea aquatica* and *Merremia quinquefolia*