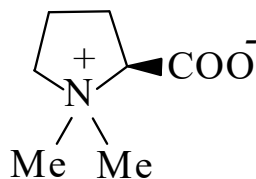




>>Entry Name: Stachydrine

ENTRY UNDER REVIEW

Synonym(s): 2-Carboxy-1,1-dimethylpyrrolidinium hydroxide inner salt, 9Cl. Hygric acid methylbetaine, 8Cl. *N*-Methylproline methylbetaine. Cadabine. Chrysanthemine



CAS Registry Number: 32039-73-9

Extra CAS Registry Numbers(s): 167936-48-3

Molecular Formula: C₇H₁₃NO₂

Molecular Weight: 143.185

Accurate Mass: 143.094629

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

Use/Importance: Cardiotonic agent

>>Variant: (S)-form

Synonym(s): L-form

CAS Registry Number: 471-87-4

Molecular Formula: C₇H₁₃NO₂

Molecular Weight: 143.185

Accurate Mass: 143.094629

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

Biological Source: Alkaloid from *Aspergillus oryzae*, *Betonica officinalis*, *Capparis tomentosa*, *Chrysanthemum* spp., *Citrus* spp., *Galeopsis grandiflora*, *Lagochilus hirtus*, *Medicago sativa* and *Stachys* spp. (Labiatae, Capparidaceae, Compositae, Rutaceae, Leguminosae)

Use/Importance: Systolic depressant. Stachydrine-contg. spp. e.g. *Capparis* spp. are widely used against rheumatism and many other diseases

Melting Point: Mp 116-118° (monohydrate). Mp 235 dec.° (anhyd.)

Optical Rotation: [α]_D -40.25 (c, 4 in H₂O)

Other Data: Fairly readily racemised, (±)-form often obt.

>>Derivative: Hydrochloride

Physical Description: Cryst. (EtOH)

Melting Point: Mp 222°

Optical Rotation: [α]_D²⁰ -28.1 (c, 4.83 in H₂O)

>>Derivative: Et ester

Synonym(s): Stachydrine ethyl ester

Molecular Formula: C₉H₁₈NO₂⁽⁺⁾

Molecular Weight: 172.247

Accurate Mass: 172.133754

Percentage Composition: C 62.76%; H 10.53%; N 8.13%; O 18.58%

Biological Source: Present in roots of *Citrus virgata* (Capparidaceae)

Optical Rotation: [α]_D -4 (H₂O)

Other Data: Isol. as periodide

>>Derivative: Et ester, picrate

Melting Point: Mp 101°

>>Variant: (±)-form

CAS Registry Number: 50298-93-6

Molecular Formula: C₇H₁₃NO₂

Molecular Weight: 143.185

Accurate Mass: 143.094629

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

Melting Point: Mp 235°