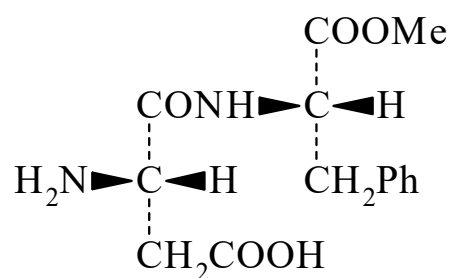




>>Entry Name: Aspartame, BAN, USAN

ENTRY UNDER REVIEW

Synonym(s): *N*- α -Aspartyl-L-phenylalanine 1-methyl ester, 9CI. Methyl aspartylphenylalanine. Nutrasweet. Canderel. α -APM. SC-18862. E 951



CAS Registry Number: 22839-47-0

Related CAS Registry Numbers(s): 53906-69-7

Molecular Formula: C₁₄H₁₈N₂O₅

Molecular Weight: 294.307

Accurate Mass: 294.121573

Percentage Composition: C 57.14%; H 6.16%; N 9.52%; O 27.18%

Use/Importance: Compd. with 100 times the sweetness of sucrose. Artificial sweetener permitted in foods in EU at 300-5500 ppm. Also permitted in USA. Widely used in foods, beverages and pharmaceutical formulations

Physical Description: Cryst. (EtOH aq. or H₂O)

Melting Point: Mp 190°. Mp 245-247° (double Mp) (235-236° dec.)

Optical Rotation: [α]_D 0 (H₂O). [α]_D²²+32 (c, 1 in AcOH)

Calculated Log P Data: Log P -2.16 (calc)

Aldrich: 85890-0

Fluka: 11300

Sigma: A5139

Supelco: R47-4775

>>Derivative: Hydrochloride

CAS Registry Number: 5910-52-1

Melting Point: Mp 127-128 dec.° (partly melts at 103°)

Optical Rotation: [α]_D²⁵+1.3 (c, 2 in H₂O)

>>Derivative: Hydrobromide

CAS Registry Number: 36771-92-3

Melting Point: Mp 155 dec.°

Optical Rotation: [α]_D²⁵+1 (c, 2 in H₂O)

>>Derivative: *N*-Benzyloxycarbonyl

CAS Registry Number: 33605-72-0

Molecular Formula: C₂₂H₂₄N₂O₇

Molecular Weight: 428.441

Accurate Mass: 428.158353

Percentage Composition: C 61.68%; H 5.65%; N 6.54%; O 26.14%

Physical Description: Cryst.

Melting Point: Mp 120-124°

Optical Rotation: [α]_D²⁵-14.4 (c, 1 in MeOH)

References: