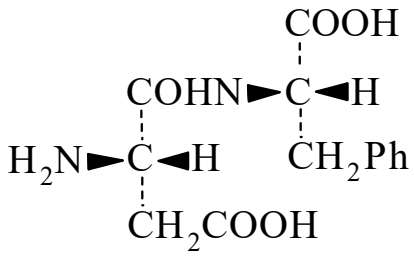
>>**Entry Name:** $N^{\alpha}$**-Aspartylphenylalanine**
**ENTRY UNDER REVIEW**



**Molecular Formula:** $C_{13}H_{16}N_2O_5$
**Molecular Weight:** 280.28
**Accurate Mass:** 280.105923
**Percentage Composition:** C 55.71%; H 5.75%; N 9.99%; O 28.54%

>>**Variant:** L-L-form

**CAS Registry Number:** 13433-09-5

**Molecular Formula:** $C_{13}H_{16}N_2O_5$
**Molecular Weight:** 280.28
**Accurate Mass:** 280.105923
**Percentage Composition:** C 55.71%; H 5.75%; N 9.99%; O 28.54%
**Source/Synthesis:** Degradn. product of aspartame
**Melting Point:** Mp 232-235°
**Optical Rotation:** $[\alpha]_D$ +16 (c, 1 in DMF)
**Aldrich:** 42166-9
**Sigma:** A7660

>>**Derivative:** Me ester
*see* Aspartame, BDS15-X

>>**Derivative:** *N*-(3,3-Dimethylbutyl), Me ester
**Synonym(s):** *N*-[*N*-(3,3-Dimethylbutyl)-L-α-aspartyl]-L-phenylalanine 1-methyl ester, 9CI. Neotame

**CAS Registry Number:** 165450-17-9
**Molecular Formula:** $C_{20}H_{30}N_2O_5$
**Molecular Weight:** 378.467
**Accurate Mass:** 378.215473
**Percentage Composition:** C 63.47%; H 7.99%; N 7.40%; O 21.14%
**Physical Description:** Cryst. +1$H_2O$ (EtOAc/hexane)
**Development Status:** Submitted to FDA (1999) for approval as food sweetener
**Melting Point:** Mp 80-83° (monohydrate)
**Optical Rotation:** $[\alpha]_D$ –54.84 (c, 1 in MeOH)
**Other Data:** Other diastereomers do not exhibit sweetening power

**References:**


Davey, J.M. *et al.*, *J.C.S.(C)*, 1966, 555, *(deriv)*
Mazur, R.H. *et al.*, *J.A.C.S.*, 1969, **91**, 2684, *(synth)*
Roberts, G.C.K. *et al.*, *Biochem. J.*, 1971, **125**, 88P, *(pmr)*
Yasutake, A. *et al.*, *Bull. Chem. Soc. Jpn.*, 1977, **50**, 2413, *(deriv)*
*U.S. Pat.*, 1996, 5 510 508; *CA*, **124**, 203104p, *(Neotame)*
Hutchinson, S.A. *et al.*, *Food Rev. Int.*, 1999, **15**, 249-261, *(formn)*
Prakash, I. *et al.*, *Synth. Commun.*, 1999, **29**, 4461-4467, *(synth, cryst struct, pmr, Neotame)*