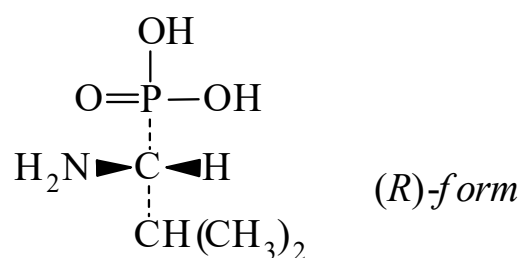




>>Entry Name: (1-Amino-2-methylpropyl)phosphonic acid, 9CI

Synonym(s): (1-Aminoisobutyl)phosphonic acid. Phosphonovaline



CAS Registry Number: 18108-24-2

Related CAS Registry Numbers(s): 18108-23-1 71864-36-3 73270-42-5

Molecular Formula: $\text{C}_4\text{H}_{12}\text{NO}_3\text{P}$

Molecular Weight: 153.117

Accurate Mass: 153.055481

Percentage Composition: C 31.38%; H 7.90%; N 9.15%; O 31.35%; P 20.23%

General Statement: Free acid exists in dipolar form

>>Variant: (R)-form

Synonym(s): L-form

CAS Registry Number: 66254-56-6

Molecular Formula: $\text{C}_4\text{H}_{12}\text{NO}_3\text{P}$

Molecular Weight: 153.117

Accurate Mass: 153.055481

Percentage Composition: C 31.38%; H 7.90%; N 9.15%; O 31.35%; P 20.23%

Physical Description: Solid

Melting Point: Mp 272-273°

Optical Rotation: $[\alpha]_{\text{D}}^{20} +10$ (c, 2.0 in 1M NaOH aq.)

Aldrich: 47186-0

>>Derivative: Di-Et ester

CAS Registry Number: 123355-14-6

Molecular Formula: $\text{C}_8\text{H}_{20}\text{NO}_3\text{P}$

Molecular Weight: 209.225

Accurate Mass: 209.118081

Percentage Composition: C 45.93%; H 9.63%; N 6.69%; O 22.94%; P 14.80%

Physical Description: Oil

Optical Rotation: $[\alpha]_{\text{D}}^{20} -9.5$ (c, 1 in CHCl_3)

>>Variant: (S)-form

Synonym(s): D-form

CAS Registry Number: 66254-55-5

Molecular Formula: $\text{C}_4\text{H}_{12}\text{NO}_3\text{P}$

Molecular Weight: 153.117

Accurate Mass: 153.055481

Percentage Composition: C 31.38%; H 7.90%; N 9.15%; O 31.35%; P 20.23%

Physical Description: Solid

Melting Point: Mp 277-278°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -10$ (c, 2.0 in 1M NaOH aq.)

Aldrich: 47187-9

>>Derivative: Di-Et ester

CAS Registry Number: 101040-21-5

Molecular Formula: $\text{C}_8\text{H}_{20}\text{NO}_3\text{P}$

Molecular Weight: 209.225

Percentage Composition: C 45.93%; H 9.63%; N 6.69%; O 22.94%; P 14.80%

Physical Description: No phys. props. reported