



>>Entry Name: Azidoacetic acid, 9CI

Synonym(s): Triazoacetic acid

CAS Registry Number: 18523-48-3

$\text{N}_3\text{CH}_2\text{COOH}$

Molecular Formula: $\text{C}_2\text{H}_3\text{N}_3\text{O}_2$

Molecular Weight: 101.065

Accurate Mass: 101.022527

Percentage Composition: C 23.77%; H 2.99%; N 41.58%; O 31.66%

Physical Description: Cryst. or liq.

Melting Point: Mp 16°

Boiling Point: Bp₁₂ 116°

Solubility: Sol. H_2O

Density: d³³ 1.354

Hazard & Toxicity: In presence of Fe or its salts, undergoes rapid exothermic dec. at 25° and explodes at 90°

>>Derivative: Et ester

CAS Registry Number: 637-81-0

Molecular Formula: $\text{C}_4\text{H}_7\text{N}_3\text{O}_2$

Molecular Weight: 129.118

Accurate Mass: 129.053827

Percentage Composition: C 37.21%; H 5.46%; N 32.54%; O 24.78%

Boiling Point: Bp₂₁ 75°. Bp₂ 45°

Rare Chemicals Library: S83830-6

>>Derivative: Chloride

Synonym(s): Azidoacetyl chloride

CAS Registry Number: 30426-58-5

Molecular Formula: $\text{C}_2\text{H}_2\text{ClN}_3\text{O}$

Molecular Weight: 119.51

Accurate Mass: 118.988639

Percentage Composition: C 20.10%; H 1.69%; Cl 29.67%; N 35.16%; O 13.39%

Boiling Point: Bp₂₀ 50°

Other Data: Dec. by H_2O

>>Derivative: Amide

Synonym(s): Azidoacetamide

CAS Registry Number: 1816-91-7

Molecular Formula: $\text{C}_2\text{H}_4\text{N}_4\text{O}$

Molecular Weight: 100.08

Accurate Mass: 100.038511

Percentage Composition: C 24.00%; H 4.03%; N 55.98%; O 15.99%

Physical Description: Needles (C_6H_6)

Melting Point: Mp 58°

Solubility: Sol. H_2O

Hazard & Toxicity: Explodes on heating

References:

Forster, M.O. *et al.*, *J.C.S.*, 1909, **95**, 191, (*synth*)

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Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1975, **5**, 21

Hazards in the Chemical Laboratory, 3rd edn., (ed. Bretherick, L.), Royal Society of Chemistry, 1981, 987

Bretherick, L., *Handbook of Reactive Chemical Hazards*, 4th edn., Butterworths, 1990, 0726