



>>Entry Name: 2-Hydroxyethyl methacrylate

Synonym(s): 2-Hydroxyethyl 2-methyl-2-propenoate, 9CI. Ethylene glycol methacrylate. Glycol methacrylate. Acryester HO

CAS Registry Number: 868-77-9

$\text{H}_2\text{C}=\text{C}(\text{CH}_3)\text{COOCH}_2\text{CH}_2\text{OH}$

Molecular Formula: $\text{C}_6\text{H}_{10}\text{O}_3$

Molecular Weight: 130.143

Accurate Mass: 130.062995

Percentage Composition: C 55.37%; H 7.74%; O 36.88%

Use/Importance: Widely used for the synth. of adhesives and polymers. Monomer of choice for the manuf. of soft contact lenses. Copolym. with ethylene glycol dimethacrylate gives a hydrophilic network polymer (a hydrogel)

Melting Point: Mp -12°

Boiling Point: Bp₂ $71-73^\circ$

Solubility: Misc. H_2O ; sol. org. solvs.

Density: d^{20}_4 1.073

Other Data: Coml. samples contain hydroquinone monomethyl ether or a similar polym. inhibitor

Hazard & Toxicity: Skin irritant and vesicant. Respiratory tract irritant

Aldrich: 12863-5

Fluka: 64170

Sigma: H8633

>>Derivative: O-Phosphate

CAS Registry Number: 24599-21-1

Molecular Formula: $\text{C}_6\text{H}_{10}\text{O}_6\text{P}$

Molecular Weight: 209.115

Accurate Mass: 209.021502

Percentage Composition: C 34.46%; H 4.82%; O 45.91%; P 14.81%

Use/Importance: Strengthening additive for dental cements. Comonomer for polyalkenes

Physical Description: Viscous liq.

>>Derivative: Ac

CAS Registry Number: 20166-49-8

Molecular Formula: $\text{C}_8\text{H}_{12}\text{O}_4$

Molecular Weight: 172.18

Accurate Mass: 172.07356

Percentage Composition: C 55.81%; H 7.02%; O 37.17%

Physical Description: No phys. props. reported

>>Derivative: O-(6-Hydroxyhexanoyl)

CAS Registry Number: 85099-10-1

Molecular Formula: $\text{C}_{12}\text{H}_{20}\text{O}_5$

Molecular Weight: 244.287

Accurate Mass: 244.131075

Percentage Composition: C 59.00%; H 8.25%; O 32.75%

Use/Importance: Polymer/dye intermed.

Melting Point: Mp -48°

Density: d 1.08

Refractive Index: n^{20}_D 1.4630

>>Derivative: Me ether

Synonym(s): 2-Methoxyethyl methacrylate

CAS Registry Number: 6976-93-8

Molecular Formula: $\text{C}_7\text{H}_{12}\text{O}_3$

Molecular Weight: 144.17

Accurate Mass: 144.078645

Percentage Composition: C 58.32%; H 8.39%; O 33.29%

Physical Description: Liq.

Boiling Point: Bp₂₀ $88-89^\circ$

Density: d^{20}_4 0.993