



>>Entry Name: **Dipentaerythritol**, 8CI

Synonym(s): 2,2'-[Oxybis(methylene)]bis-[2-(hydroxymethyl)-1,3-propanediol], 9CI

CAS Registry Number: 126-58-9

Related CAS Registry Numbers(s): 77641-99-7

(HOCH₂)₃CCH₂OCH₂C(CH₂OH)₃

Molecular Formula: C₁₀H₂₂O₇

Molecular Weight: 254.28

Accurate Mass: 254.136555

Percentage Composition: C 47.24%; H 8.72%; O 44.04%

Source/Synthesis: By-product in manuf. of pentaerythritol from Formaldehyde [CVP49-C](#) and Acetaldehyde [DFR74-T](#)

Use/Importance: Fireproofing agent, high-temperature lubricant

Physical Description: Cryst. (H₂O)

Melting Point: Mp 221°

Solubility: Spar. sol. cold H₂O; sol. hot

Density: d¹⁵ 1.366

Aldrich: D20320-3

>>Derivative: Hexa-Ac

CAS Registry Number: 67754-23-8

Molecular Formula: C₂₂H₃₄O₁₃

Molecular Weight: 506.503

Accurate Mass: 506.199945

Percentage Composition: C 52.17%; H 6.77%; O 41.06%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 73°

>>Derivative: Hexanitrate

CAS Registry Number: 13184-80-0

Molecular Formula: C₁₀H₁₆N₆O₁₉

Molecular Weight: 524.265

Accurate Mass: 524.047029

Percentage Composition: C 22.91%; H 3.08%; N 16.03%; O 57.98%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 75°

Hazard & Toxicity: Potentially explosive

>>Derivative: Tetra-2-propenoyl

Synonym(s): Dipentaerythritol tetraacrylate

CAS Registry Number: 63971-15-3

Molecular Formula: C₂₂H₃₀O₁₁

Molecular Weight: 470.472

Accurate Mass: 470.178815

Percentage Composition: C 56.17%; H 6.43%; O 37.41%

Use/Importance: Monomer used in photocurable coatings

>>Derivative: Penta-2-propenoyl

Synonym(s): Dipentaerythritol pentaacrylate

CAS Registry Number: 60506-81-2

Molecular Formula: C₂₅H₃₂O₁₂

Molecular Weight: 524.521

Accurate Mass: 524.18938

Percentage Composition: C 57.25%; H 6.15%; O 36.60%

Use/Importance: Monomer for photopolymerisation compds.