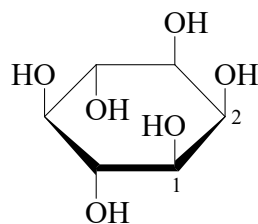




>>Entry Name: *myo*-Inositol, 9CI, 8CI

Synonym(s): (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-Cyclohexanehexol. *meso*-Inositol. Dambosc. Nucitol. 1,2,3,5/4,6-Inositol. *i*-Inositol. Inositol. Mesoinositol. Phaseomannitol. Myoinositol. Isoinositol. Many other names



CAS Registry Number: 87-89-8

Related CAS Registry Numbers(s): 3615-82-5 7205-52-9 17211-15-3 21667-10-7 23784-11-4 39907-99-8 56083-79-5 68247-19-8 105182-27-2

Extra CAS Registry Numbers(s): 6917-35-7

Molecular Formula: C₆H₁₂O₆

Molecular Weight: 180.157

Accurate Mass: 180.06339

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

necessary. The direction of numbering (1- vs. 3-) specifies the absolute configuration, i.e. the numbering shown above is for D-*myo*-inositol

Biological Source: Of common occurrence in plants and animals. Obt. comly. from phytic acid in corn steep liquor. The most widely distributed of the inositols

Biological Use/Importance: Growth factor for animals and microorganisms. Lipotropic agent. The phosphates are important cellular second messengers

Melting Point: Mp 225°

Hazard & Toxicity: Toxic

Aldrich: I-665-2

Fluka: 57575

Sigma: I7508

>>Derivative: 1-Phosphate

CAS Registry Number: 15421-51-9

Extra CAS Registry Numbers(s): 32739-43-8 37170-04-0

Molecular Formula: C₆H₁₃O₉P

Molecular Weight: 260.137

Accurate Mass: 260.029722

Percentage Composition: C 27.70%; H 5.04%; O 55.35%; P 11.91%

Biological Source: Wheat bran phytase hydrol. prod. of sodium phytate

Optical Rotation: [α]_D²⁵+9.3 (H₂O)

Other Data: Chiral, D-form

>>Derivative: 1-Phosphate, ($\pm$)

CAS Registry Number: 53797-24-3

Molecular Formula: C₆H₁₃O₉P

Molecular Weight: 260.137

Accurate Mass: 260.029722

Percentage Composition: C 27.70%; H 5.04%; O 55.35%; P 11.91%

Physical Description: Cryst. (Me₂CO aq.) (as bis(cyclohexylammonium) salt)

Melting Point: Mp 210-215° (205-207°) dec. (as bis(cyclohexylammonium) salt)

Other Data: Also the racemate of the 3-phosphate

>>Derivative: 2-Phosphate

CAS Registry Number: 7336-80-3

Molecular Formula: C₆H₁₃O₉P

Molecular Weight: 260.137

Accurate Mass: 260.029722

Percentage Composition: C 27.70%; H 5.04%; O 55.35%; P 11.91%

Physical Description: Hexagonal plates (EtOH aq.)

Melting Point: Mp 198-200 dec.°

Other Data: *Meso*-

>>Derivative: 2-Phosphate, bis(cyclohexylammonium) salt