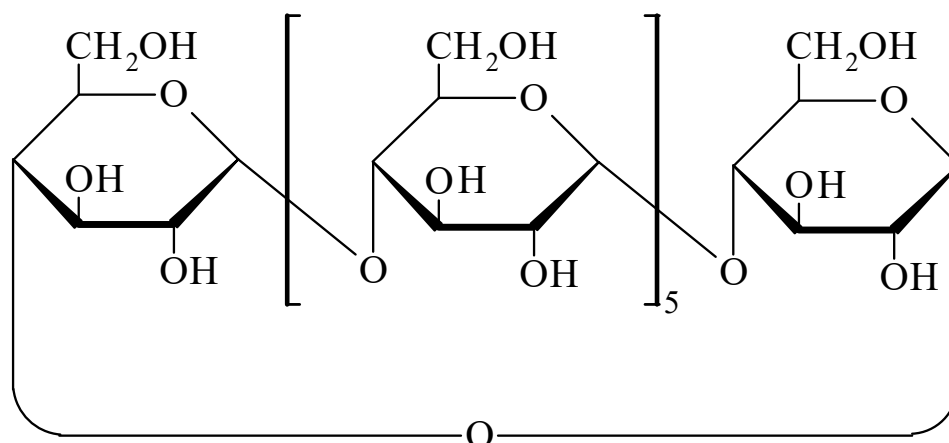




>>Entry Name: β -Cyclodextrin, 9CI

Synonym(s): Cycloheptakis-(1 $\rightarrow$ 4)-(α -D-glucopyranose). Cycloheptaamylose. Cyclomaltoheptaose. **Betadex**, INN, USAN. Beta cyclodextrin, USAN. Cycloheptaglucon. Cycloheptamaltose. β -Schardinger dextran



CAS Registry Number: 7585-39-9

Extra CAS Registry Numbers(s): 68168-23-0

Molecular Formula: C₄₂H₇₀O₃₅

Molecular Weight: 1134.994

Accurate Mass: 1134.369775

Percentage Composition: C 44.45%; H 6.22%; O 49.34%

Biological Source: Obt. from the breakdown of starch by the action of *Bacillus macerans*

Use/Importance: Forms inclusion complexes which have been used to induce stereoselectivity in reactions. Many complexes studied structurally.

Biological Use/Importance: Pharmaceutical aid (sequestering agent)

Physical Description: Monoclinic cryst. +H₂O (H₂O)

Melting Point: Mp 260 dec.°

Optical Rotation: [α]_D +162.5 (c, 1.0 in H₂O)

Other Data: Forms cryst. complexes with propanol and iodine

Fluka: 28707

Sigma: C4767

Supelco: R33-8050

>>Derivative: Heneicosa-Ac

Molecular Formula: C₈₄H₁₁₂O₅₆

Molecular Weight: 2017.775

Accurate Mass: 2016.59164

Percentage Composition: C 50.00%; H 5.59%; O 44.40%

Physical Description: Cryst. (toluene)

Melting Point: Mp 200°

Optical Rotation: [α]_D +122 (c, 1.0 in CHCl₃)

>>Derivative: 6^A-(4-Methylbenzenesulfonyl)

CAS Registry Number: 67217-55-4

Molecular Formula: C₄₉H₇₆O₃₇S

Molecular Weight: 1289.183

Accurate Mass: 1288.378625

Percentage Composition: C 45.65%; H 5.94%; O 45.92%; S 2.49%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 172-174 dec.°

>>Derivative: 2,2',2'',2''',2''',2''',2''',6,6',6'',6''',6''',6''',6''''-Tetradeca-O-Me

Synonym(s): Heptakis(2,6-dimethyl)cyclomaltoheptaose. Dimethyl- β -cyclodextrin. DIMEB

CAS Registry Number: 51166-71-3

Molecular Formula: C₅₆H₉₈O₃₅

Molecular Weight: 1331.369

Accurate Mass: 1330.588875

Percentage Composition: C 50.52%; H 7.42%; O 42.06%

Melting Point: Mp 312°