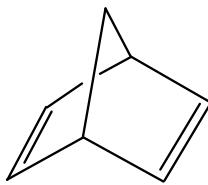




>>Entry Name: Bicyclo[2.2.1]hepta-2,5-diene, 9CI

Synonym(s): 2,5-Norbornadiene, 8CI



CAS Registry Number: 121-46-0

Molecular Formula: C<sub>7</sub>H<sub>8</sub>

Molecular Weight: 92.14

Accurate Mass: 92.0626

Percentage Composition: C 91.25%; H 8.75%

Physical Description: Liq.

Melting Point: Fp -19.1°

Boiling Point: Bp 90.3°

Density: d<sup>20</sup> 0.854

Refractive Index: n<sub>D</sub><sup>20</sup> 1.4700

Other Data: Coml. samples are usually inhibited with 2,6-di-*tert*-butyl-4-methylphenol. Cationic or radical polym. gives rearranged products. Polym. using Pd catalysts gives unrearranged products. Undergoes ring-opening polym. in the presence of coordination catalysts

Aldrich: B3380-3

Fluka: 14349

#### References:

- Aldrich Library of FT-IR Spectra, 1st edn.*, 1985, **1**, 53A, (*ir*)  
*Aldrich Library of 13C and 1H FT NMR Spectra*, 1992, **1**, 75A, (*nmr*)  
*Aldrich Library of FT-IR Spectra: Vapor Phase*, 1989, **3**, 78D, (*ir*)  
Zutty, N.L., *J. Polym. Sci., Part A*, 1963, **1**, 2231, (*radical polym*)  
Kennedy, J.P. *et al.*, *Polymer*, 1965, **6**, 133, (*cationic polym*)  
Goto, T. *et al.*, *Tetrahedron*, 1966, **22**, 2213, (*ms*)  
Field, F.H., *J.A.C.S.*, 1967, **89**, 5328, (*ms*)  
Bischof, P. *et al.*, *Helv. Chim. Acta*, 1969, **52**, 1745, (*pe*)  
Jackson, R.L. *et al.*, *Acta Cryst.*, 1972, **28**, 1645, (*cryst struct, bibl*)  
Hojabri, F., *J. Appl. Chem. Biotechnol.*, 1973, **23**, 601, (*Pd-catalysed polym*)  
Olah, G.A. *et al.*, *J.O.C.*, 1975, **40**, 3638, (*pmr, cmr*)  
Ivin, K.J. *et al.*, *Makromol. Chem.*, 1978, **179**, 253, (*ring-opening polym*)  
Lightner, D.A. *et al.*, *J.A.C.S.*, 1980, **102**, 5749, (*uv*)  
Wertz, D.W. *et al.*, *Spectrochim. Acta A*, 1980, **36**, 467, (*ir*)  
De Lucchi, O. *et al.*, *Chem. Comm.*, 1982, 914, (*synth*)  
Knuchel, G. *et al.*, *J.A.C.S.*, 1993, **115**, 10845, (*microwave spectra*)  
Roos, B.O. *et al.*, *J.A.C.S.*, 1994, **116**, 5927, (*uv, theory*)  
Benet-Buchholz, J. *et al.*, *Chem. Comm.*, 1998, 2003-2004, (*cryst struct*)  
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn.*, Van Nostrand Reinhold, 1992, NNG000