



>>Entry Name: 1,1-Diphenylethylene, 8CI

Synonym(s): 1,1'-Ethenylidenebisbenzene, 9CI. α -Methylenediphenylmethane

CAS Registry Number: 530-48-3

Type of Compound Code(s): PS8300 PA3100

$\text{Ph}_2\text{C}=\text{CH}_2$

Molecular Formula: $\text{C}_{14}\text{H}_{12}$

Molecular Weight: 180.249

Accurate Mass: 180.0939

Percentage Composition: C 93.29%; H 6.71%

Use/Importance: Used in photometric detn. of O_3

Physical Description: Liq.

Melting Point: Mp 8°

Boiling Point: Bp 277° . Bp₁₆ 147° . Bp₁₂ 136 - 137°

Solubility: Insol. H_2O ; sol. Et_2O , CHCl_3

Density: d_4^{14} 1.038

Refractive Index: n_D^{20} 1.6085

Other Data: Not homopolym. for thermodynamic reasons; copolym. with other monomers. Q/e values for copolym., Q 0.17, e -1.71

Hazard & Toxicity: Forms an explosive peroxide with oxygen. Skin, eye and respiratory tract irritant

Aldrich: D20680-6

Fluka: 42740

References:

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **2**, 37B, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 953C, (ir)

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Patai, S. *et al.*, *J.C.S.(C)*, 1971, 3100, (ir, uv, pmr)

McKinley, S.V. *et al.*, *Chem. Comm.*, 1972, 134, (synth)

Jeffrey, A. *et al.*, *Aust. J. Chem.*, 1974, **27**, 2659, (synth)

Vasilescu, D.S. *et al.*, *Rev. Roum. Chim.*, 1974, **19**, 1637, (copolymers)

Toone, T.W. *et al.*, *J.C.S. Perkin 2*, 1975, 607, (synth)

Knothe, L. *et al.*, *Annalen*, 1977, 687, (cmr)

Collard, R.S. *et al.*, *Anal. Chim. Acta*, 1979, **108**, 255, (detn, ozone)

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