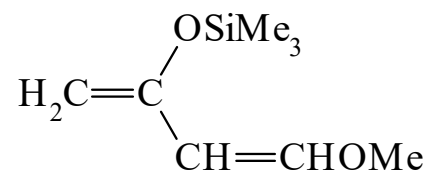




>>Entry Name: 1-Methoxy-3-(trimethylsilyloxy)-1,3-butadiene

Synonym(s): [(3-Methoxy-1-methylene-2-propenyl)oxy]trimethylsilane, 9CI. Danishefsky's diene



CAS Registry Number: 59414-23-2

Related CAS Registry Numbers(s): 124306-13-4

Molecular Formula: C<sub>8</sub>H<sub>16</sub>O<sub>2</sub>Si

Molecular Weight: 172.299

Accurate Mass: 172.091957

Percentage Composition: C 55.77%; H 9.36%; O 18.57%; Si 16.30%

Sigma: M4906

>>Variant: (*E*)-form

CAS Registry Number: 54125-02-9

Molecular Formula: C<sub>8</sub>H<sub>16</sub>O<sub>2</sub>Si

Molecular Weight: 172.299

Accurate Mass: 172.091957

Percentage Composition: C 55.77%; H 9.36%; O 18.57%; Si 16.30%

Source/Synthesis: Synth. from MeCOCH=CHOMe, Me<sub>3</sub>SiCl and Et<sub>3</sub>N in presence of ZnCl<sub>2</sub> in C<sub>6</sub>H<sub>6</sub>

Use/Importance: Diels-Alder diene; undergoes [4+2] cycloaddn. with aldehydes or imines in presence of BF<sub>3</sub> or ZnCl<sub>2</sub>

Physical Description: Liq.

Boiling Point: Bp<sub>14</sub> 68-69°. Bp<sub>5</sub> 54-55°

Refractive Index: n<sub>D</sub><sup>20</sup> 1.4560

Aldrich: 21283-0

Fluka: 65368

#### References:

Danishefsky, S. *et al.*, *J.A.C.S.*, 1974, **96**, 7807; 1977, **99**, 6066; 1978, **100**, 6536; 1982, **104**, 358, (*synth, ir, pmr, use*)

Jackson, D.A. *et al.*, *Chem. Comm.*, 1981, 478, (*use, cycloaddn*)

*Fieser and Fieser's Reagents for Organic Synthesis*, Wiley, 1982, **10**, 260, (*use*)

Kerwin, J.F. *et al.*, *Tet. Lett.*, 1982, **23**, 3739, (*use, cycloaddn*)

*Org. Synth.*, 1983, **61**, 147, (*synth*)

Sera, A. *et al.*, *Heterocycles*, 1991, **32**, 273, (*use*)

Page, P.C.B. *et al.*, *Synlett*, 1991, 84, (*use*)

Jung, M.E. *et al.*, *Synth. Commun.*, 1994, **24**, 197, (*synth*)