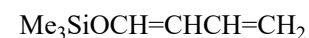




>>Entry Name: 1-Trimethylsilyloxy-1,3-butadiene

Synonym(s): (1,3-Butadienyloxy)trimethylsilane, 12Cl, 9Cl

CAS Registry Number: 6651-43-0



Molecular Formula: $\text{C}_7\text{H}_{14}\text{OSi}$

Molecular Weight: 142.272

Accurate Mass: 142.081392

Percentage Composition: C 59.10%; H 9.92%; O 11.25%; Si 19.74%

Source/Synthesis: Synth. from crotonaldehyde + Et_3N + Me_3SiCl in presence of ZnCl_2 + hydroquinone

Use/Importance: Diels-Alder diene; undergoes [2+2] cycloaddn. with dichloroketene at the remote double bond; dimerised by Ni(0) to 3,4-disubst. cyclooctadiene. Undergoes aldol condensation-type group-transfer polym.

Physical Description: Moisture-sensitive liq.

Boiling Point: Bp 131°

Density: d 0.811

Refractive Index: n_D^{20} 1.4480

Aldrich: 22722-6

Fluka: 92727

>>Variant: (E)-form

CAS Registry Number: 63383-46-0

Molecular Formula: $\text{C}_7\text{H}_{14}\text{OSi}$

Molecular Weight: 142.272

Accurate Mass: 142.081392

Percentage Composition: C 59.10%; H 9.92%; O 11.25%; Si 19.74%

Physical Description: Liq.

Boiling Point: Bp₅₆ 60°. Bp₂₅ 49.5°

Refractive Index: n_D^{20} 1.4472

>>Variant: (Z)-form

CAS Registry Number: 36045-78-0

Molecular Formula: $\text{C}_7\text{H}_{14}\text{OSi}$

Molecular Weight: 142.272

Accurate Mass: 142.081392

Percentage Composition: C 59.10%; H 9.92%; O 11.25%; Si 19.74%

Physical Description: Liq.

Boiling Point: Bp₇₄₀ 80-85°

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