>>**Entry Name: Trimethyl-2-propenylsilane,** 12Cl
Synonym(s): Allyltrimethylsilane

CAS Registry Number: 762-72-1

Molecular Formula: $C_6H_{14}Si$
Molecular Weight: 114.262
Accurate Mass: 114.086477
Percentage Composition: C 63.07%; H 12.35%; Si 24.58%
Source/Synthesis: Synth. from $H_2C{=}CHCH_2MgBr$ and Me_3SiCl
Use/Importance: Comly. available allyl transfer reagent. Catalyst for polym. of ethene and other olefins; undergoes cycloaddn. reactions; in presence of $TiCl_4$ or $SnCl_4$ adds to aldehydes, gives good stereoselection with α-alkoxy aldehydes; undergoes Lewis acid catalysed diastereoselective addn. to chiral α-ketoamides; conjugate addn. to α,β-unsatd. esters, nitriles, enones in presence of $TiCl_4$, and to cyclopropanes substituted by *gem*-alkoxycarbonyl groups in presence of $EtAlCl_2$; adds to iminium ions; monosubstitutes selenoacetals in presence of a Lewis acid to give homoallyl selenides; undergoes ene reactions with a range of enophiles; reagent for ring-opening alkylation of oxetanes in presence of $TiCl_4$; undergoes Heck reaction with aryl iodides in presence of Pd complexes. Corresp. Grignard reagent adds to ketones in presence of $TiCl_4$
Physical Description: Colourless liq.
Boiling Point: Bp 85-86° (84-88°)
Density: d_4^{20} 0.716
Other Data: Undergoes Ziegler-Natta polym. Resistant to radical polym.
Hazard & Toxicity: Highly flammable. Irritant

Aldrich: 20826-4
Fluka: 6073
Sigma: A8778

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