>>**Entry Name: Dichlorotriphenylantimony,** 9Cl
Synonym(s): Dichlorotriphenylstiborane. Triphenylantimony dichloride

CAS Registry Number: 594-31-0
Related CAS Registry Numbers(s): 34716-91-1

Ph_3SbCl_2

Molecular Formula: $C_{18}H_{15}Cl_2Sb$
Molecular Weight: 423.972
Accurate Mass: 421.9589
Percentage Composition: C 50.99%; H 3.57%; Cl 16.72%; Sb 28.72%
General Statement: Possesses tbp struct. with axial Sb-Cl, 250.0 pm (mean) and equatorial Sb-Ph bonds, Sb-C 208.4-210.6 pm
Source/Synthesis: Synth. from $Ph_3Sb + Cl_2$ or SO_2Cl_2, or $Ph_3Sb + CuCl_2$, or $Ph_2Hg + SbCl_5$
Use/Importance: Bactericide, fungicide. Catalyses reaction of aziridines with CS_2 → 1,3-thiazolidine-2-thiones
Physical Description: Cryst. (MeOH, EtOH/$CHCl_3$ or cyclohexane/MeOH)
Melting Point: Mp 143°
Other Data: With $Pd(OAc)_2/NEt_3$ → biphenyl. With $Na_2S_2O_3$ → Triphenylstibine sulfide BNK23-C. Relatively unreactive to boiling H_2O. RSH/NH_3 → Ph_3Sb
Hazard & Toxicity: LD_{50} (rat, orl) 195 mg/kg

Aldrich: 13509-7
Rare Chemicals Library: S44531-2

>>**Derivative:** $SbCl_3$ complex (1:1)

Molecular Formula: $C_{18}H_{15}Cl_5Sb_2$
Molecular Weight: 652.08
Accurate Mass: 647.769277
Percentage Composition: C 33.16%; H 2.32%; Cl 27.18%; Sb 37.34%
Physical Description: Cryst. (CCl_4)
Melting Point: Mp 126°

>>**Derivative:** $SbBr_3$ complex (1:1)

Molecular Formula: $C_{18}H_{15}Br_3Cl_2Sb_2$
Molecular Weight: 785.434
Accurate Mass: 779.677729
Percentage Composition: C 27.53%; H 1.92%; Br 30.52%; Cl 9.03%; Sb 31.00%
Physical Description: Cryst.
Melting Point: Mp 112°
Solubility: Insol. $CHCl_3$

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