

Application Note M7.0

Scavenging a Tin Catalyst

A metal scavenging study using **SiliaBond Metal Scavengers** products was conducted on a tin catalyst commonly used in organic synthesis. Various parameters were studied for their influence on the scavengers' robustness as well as to establish the best conditions to bring the level of metal down to an acceptable level for the pharmaceutical industry (i.e.: solvent, number of equivalents, temperature, and reaction time).

SCAVENGING A TIN CATALYST RESULTS

Sn(OTf) ₂ : Residual Tin Concentration		
Scavengers	Conditions	Sn (ppm)
SiliaBond Amine	4eq., 16h, 80°C	2.3
SiliaBond Diamine	4eq., 4h, 80°C	<1
SiliaBond TAAcONa	4eq., 4h, 22°C	<1
	4eq., 4h, 80°C	<1
SiliaBond Triamine	4eq., 4h, 80°C	<1

Initial concentration: 1 000 ppm in DMF

