Scavengers for Electrophiles

Which compounds to scavenge?	Recommended scavengers
Carbonyls	**PS-TsNHNH$_2$** PS-Trisamine MP-Trisamine
Alkylating Agents (Alkyl halides, Mesylates, Tosylates, α-bromoesters, α-bromoketones)	**PS-Thiophenol** PS-Triphenylphosphine
Acid Chlorides	**PS-Trisamine** **MP-Trisamine** PS-NH$_2$
Sulfonyl Chlorides	**PS-Trisamine** **MP-Trisamine** PS-DMAP PS-NH$_2$
Isocyanates	**PS-Trisamine** **MP-Trisamine** PS-NH$_2$
Epoxides	**PS-Thiophenol**
Oxophilic inorganic, organometallic complexes (B, Ti, Sn)	**PS-DEAM**
Lewis Acids, e.g., Ti(IV), Sn(IV)	**PS-DEAM**

Scavengers for Nucleophiles

Which compounds to scavenge?		Recommended scavengers
Alcohols		**PS-TsCl(HL)**
Amines	Primary, Secondary	**PS-Isocyanate** **MP-Isocyanate** MP-TsOH MP-TsOH Cartridges PS-TsCl(HL)
	Selective for Primary	**PS-Benzaldehyde**
	Anilines (Aromatic)	**PS-TsCl(HL)** MP-TsOH MP-TsOH Cartridges PS-Isocyanate MP-Isocyanate
Hydrazines		**PS-Benzaldehyde** PS-TsCl(HL)
Enolates		**PS-Benzaldehyde**
Thiols/Thiolates		**PS-Isocyanate** **MP-Isocyanate** PS-Thiophenol
Alkoxides		**PS-TsCl(HL)** PS-Isocyanate MP-Isocyanate
Organometallics		**PS-Benzaldehyde** PS-TsCl(HL)
Reducing Agents		**PS-Benzaldehyde**
Acids/Acidic Phenols	HOBt Pentafluorophenol 4-Nitrophenol Carboxylic Acid Phenol	**MP-Carbonate** PS-Trisamine MP-Trisamine

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Polymer Reagents

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What type of reagent? What application?	Recommended polymer reagent

Bases

Basic Quenching, Neutralize Ammonium Salts	**MP-Carbonate**
Strong Tertiary Amine Base *(e.g. mesylate formation)*	**PS-DIEA**
Tertiary Amine Base *(e.g. formation of amides, sulfonamides, carbamates)*	**PS-NMM**
Strong Base *(e.g. alkylation of phenols, amines, activated methylene compounds; esterification of carboxylic acids)*	**PS-TBD**

Acids

Acid Quenching	**MP-TsOH** **PS-DIEA HCl**
Amine Purification	**MP-TsOH** **MP-TsOH Cartridges**

Coupling Agents

Amide Synthesis	**PS-Carbodiimide** **PS-HOBt(HL)** **PS-HOBt(HL)/ACTU** **PS-TFP**
Activated Ester Formation	**PS-Carbodiimide/HOBt** **PS-HOBt(HL)/ACTU** **PS-TFP**
Protecting Group Transfer	**PS-HOBt(HL)**

Reductants

Carbonyl Reduction	**MP-BH_4**
Reductive Amination	**MP-$CNBH_3$** **MP-BH_4** *(with $Ti(O^iPr)_4$)* **MP-$BH(OAc)_3$**

What type of reagent? What application?	Recommended polymer reagent

Electrophilic Activation

Halogenation *(Chlorination, bromination, iodination)*	**PS-Triphenylphosphine**
Phenylether Formation *(i.e. Mitsunobu reaction)*	**PS-Triphenylphosphine**
Thioester Active Intermediate	**PS-Thiophenol**
Alcohol Activation	**PS-TsCl**
Acid and Sulfonyl Chloride Activation	**PS-DMAP**

Nucleophilic Activation

Carbon-Carbon Bond *(e.g.Wittig reaction)*	**PS-Triphenylphosphine**
Sulfonyl Hydrazone Formation *(e.g. Hurd-Mori thiadiazole synthesis)*	**PS-$TsNHNH_2$**

Catalysts

Acids	**MP-TsOH**
Acyl Transfer	**PS-DMAP**

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