# Piperazine (PPZ)



Piperazine Resin, MP, is a macroporous polystyrene resin functionalized with a piperazine end group. It is very efficient as a catalyst for Knoevenagel condensations and as the reagent is polymer bound, transesterification in alcoholic solvents and generation of piperazine derived byproducts is significantly minimized.

 $\bigcirc \mathsf{N} \bigcirc \mathsf{NH}$ 

Its utility extends to the preparation of triazines as well as solid supported  $\beta$ -enaminones and supported piperazine carboxaldeyhdes for use in Vilsmeier reactions. MP-Piperazine is also highly capable deprotecting Fmoc groups.

Si-Piperazine is a piperazine tethered silica having similar applications as the MP-Piperazine including scavenging, catalytic and Fmoc deprotection applications.

#### **General Reaction**

### References

Brase, S. Angew. *Chem., Int. Ed.* **1999**, *38*, 1071-1073. De Meijere, A. Angew. *Chem., Int. Ed.* **1999**, *38*, 3669-3672. Simson, J. *Tetrahedron Lett.* **1999**, *40*, 7031-7033. Bhat, A. S. *J. Comb. Chem.* **2000**, *2*, 597-599 Brase, S. *Chem. Eur. J.* **2000**, *6*, 1899-1905 Rishton, G. M. *J. Med. Chem.* **2000**, *43*, 2297-2299 Donohue, A. C. *J. Chem. Soc., Perkin Trans.*, **2001**, 2817-2822 Atlan, V. *Synlett.* **2002**, 352-354. Li, X. *Org. Biomol. Chem..* **2003**, *1*, 4392-4395. Porcheddu, A. *J. Comb. Chem..* **2004**, *6*, 105-111 Rivero, I. A... *J. Comb. Chem..* **2004**, *6*, 270-274

Kreis, M. Org. Biomol. Chem. 2005, 3, 1835-1837.

# Solvent Compatibility

THF DMF NMP DCM ACN

## Ordering Information

### MP-Piperazine

Loading: 1.0-1.2mmol/g	10g	SPMP 25-10
	25g	SPMP 25-25
Bead size: 100-200 mesh	100g	SPMP 25-100
	1Kg	SPMP 25-1kg

# Si-Piperazine

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Loading: 1.0-1.1mmol/g	10g	SPSi 24-10
	25g	SPSi 24-25
Bead size: Avg 40-62 microns	100g	SPSi 24-100
	1Kg	SPSi 24-1kg

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