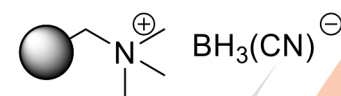


# Cyanoborohydride (BH<sub>3</sub>CN)

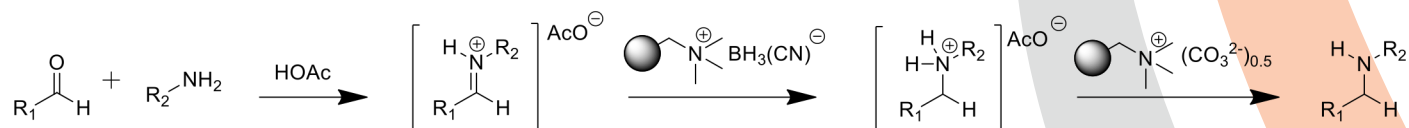
Cyanoborohydride Resin, MP, is a macroporous resin functionalized with a tetraalkylammonium cyanoborohydride end group. It is a commonly utilized reagent for the conversion of carbonyl containing moieties to amines via reductive amination protocols. It is also known to reduce a variety of iminium ions including pyridinium salts. Reduction of aldehydes and  $\alpha,\beta$ -unsaturated carbonyls to the corresponding alcohols has also been reported.

A standard protocol involves combining requisite carbonyl and amine in a slightly acidic solution, followed by agitation in the presence of MP-Cyanoborohydride. Simple filtration provides a mixture of desired product (as the acid salt) and either excess amine or carbonyl. Scavenging the excess reagent with the appropriate scavenger, followed by free-basing with MP-carbonate, provides only the desired product upon concentration.

Safety concerns arising from cyanide contamination are alleviated since the toxic species is retained on the polymer support for effective containment and disposal.



## General Reaction



## References

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## Solvent Compatibility

THF  
DCM  
DCE  
DMF  
NMP  
MeOH  
EtOH

## Ordering Information

### MP-Cyanoborohydride

Loading: 2.8-3.0 mmol/g	10g	SPMP 05-10
	25g	SPMP 05-25
Bead size: 330-1225 microns, 15-50 mesh (>90% within)	100g	SPMP 05-100
	1Kg	SPMP 05-1kg