

# Turbo Grignard Reagents

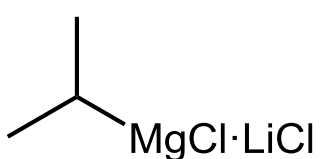
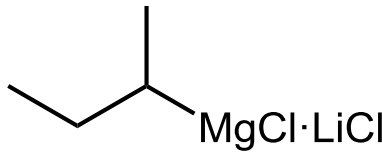


TurboGrignards allow the conversion of a variety of functionalized and highly sensitive substrates to their corresponding functionalized organometallic reagents, including both aryl- and heteroaryl-magnesium derivatives. While rate enhancements are observed with the TurboGrignards, this increased reactivity does not have a negative impact on the overall scope of the reaction, permitting transformations to occur in the presence of a broad range of functional groups.

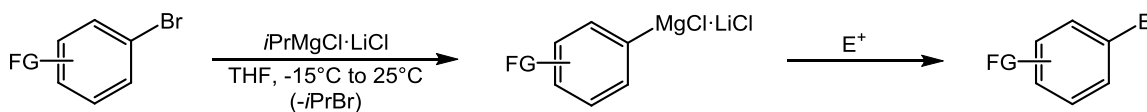
## Features

- ◇ Increased functional group compatibility
- ◇ Mild reaction conditions
- ◇ Side reactions inhibited

## Product List

Catalog Code	Product Name	Size
20344-25	Isopropylmagnesium chloride-lithium chloride complex, in tetrahydrofuran Conc. : apx.1.3M (apx.14%) [745038-86-2] FW:145.24	100mL
20344-05	 MgCl·LiCl	500mL
04944-25	<i>sec</i> -Butylmagnesium chloride-lithium chloride complex, int tetrahydrofuran Conc. : apx.1.2M (apx.15%) [1032768-06-1] FW:159.27	100mL
04944-05	 MgCl·LiCl	500mL

## Reaction Examples

FG = F, Cl, Br, CN, CO<sub>2</sub>R, OMe

E = electrophile

Entry	Grignard Reagent	Electrophile	Product	Yield <sup>[a]</sup>
1		PhCHO		70
2		PhCHO		81
3		PhCOCl		87 <sup>[b]</sup>
4		allyl bromide		93 <sup>[b]</sup>
5		PhCHO		87
6		allyl bromide		82 <sup>[b]</sup>
7		allyl bromide		88 <sup>[b]</sup>

[a] Yield of isolated analytically pure product.

[b] The Grignard reagent was transmetalated with CuCN·2LiCl before reaction with an electrophile.

## References

Krasovskiy, A.; Knochel, P. *Angew. Chem. Int. Ed.* **2004**, *43*, 3333.

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