## Strem Chemicals, Inc.

## strem.com

Catalog \# 26-2640 Iron nonacarbonyl, 99\%


Technical Notes:

1. Fe-catalyzed $\mathrm{C}-\mathrm{C}$ bond formation by direct functionalization of $\mathrm{C}-\mathrm{H}$ bonds adjacent to heteroatoms
2. Catalyst used for the dehydration of amides into the corresponding nitriles in the presence of silanes
3. Used in Fe-catalyzed synthesis of alkenes by the reduction of alkynes
4. Catalyst for the efficient $\mathrm{C}=\mathrm{O}$ and $\mathrm{C}=\mathrm{N}$ reduction in water
5. Catalyst for the synthesis of Benzylamines via direct amination of benzyl alcohols
6. Catalyst for the regioselective synthesis of $\gamma$-lactones via radical annulation of alkenes with $\alpha$-halocarboxylic acids and their derivatives
7. Used in Fe-catalyzed $N$-ethylation and $N$-methylation of amines with ethanol and methanol
8. Catalyst for ligand free $\alpha$-alkylation of methylene ketones and $\beta$-alkylation of secondary alcohols using primary alcohols
9. Catalyst for alkylative cyclization of unsaturated carboxylic acids and alcohols to generate oxygen-containing heterocyclic compounds


Tech Note (1)
Ref. (1)


Tech Note (2)
Ref. (2)


Tech Note (3)
Ref. (3)

$\mathrm{X}=\mathrm{O}, \mathrm{NR}^{3}$

## Strem Chemicals, Inc.



Tech Note (5)
Ref. (5)

$$
\mathrm{R}^{1}=\mathrm{OMe}, \mathrm{Me}, \mathrm{H}, \mathrm{~F}, \mathrm{Cl}, \mathrm{CF}_{3}
$$

$R^{2}=\mathrm{Ph}, \mathrm{Bn}$, Alkyl; $\mathrm{R}^{3}=\mathrm{H}$, Alkyl

$\mathrm{X}=\mathrm{Br}$ or $\mathrm{I} ; \mathrm{R}=\mathrm{OH}, \mathrm{OEt}$ or NHPh


or $+\mathrm{R}^{2} \mathrm{OH}$





## Tech Note (6)

Ref. (6)

Tech Note (7) Ref. (7)

Tech Note (8)
Ref. (8)

Tech Note (9)
Ref. (9)

References:

1. Angew. Chem. Int. Ed. 2008, 47, 7497
2. Chem. Commun. 2009, 4883
3. Chem. Asian J. 2011, 6, 1613
4. ChemCatChem 2013, 5, 2939
5. ACS Catal. 2016, 6, 381
6. Org. Lett. 2018, 20, 3848
7. Org. Lett. 2018, 20, 5985
8. J. Org. Chem. 2019, 84, 11676
9. Org. Lett. 2020, 22, 7343
