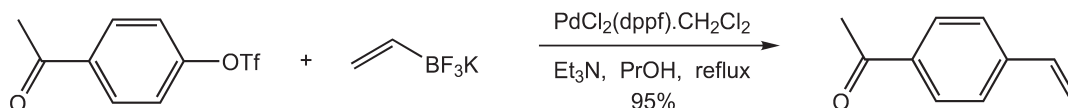


# Organotrifluoroborates

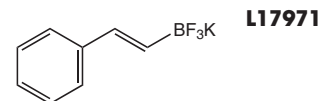
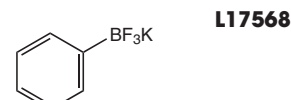
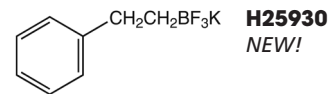
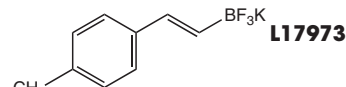
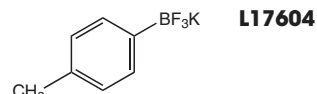
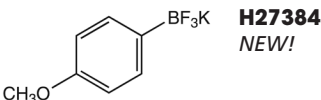
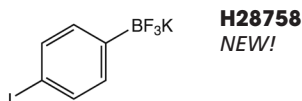
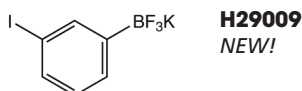
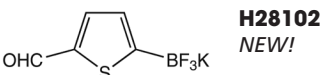
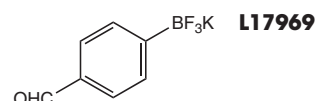
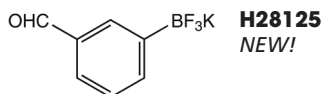
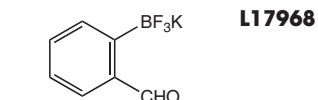
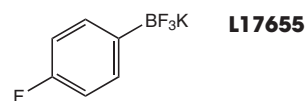
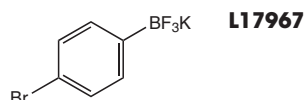
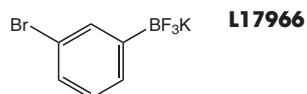
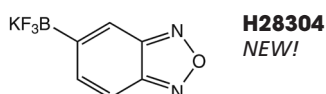
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Direct cross-coupling of potassium vinyltrifluoroborate (stock no. L17970) with aryl halides and triflates, catalyzed by [1,1'-Bis(diphenylphosphino)ferrocene]palladium(II) chloride (stock no. 41225).

New synthetic methods are being explored to improve and expand on carbon-carbon coupling techniques. One of these employs organotrifluoroborates, which as reagents tolerant of air and moisture, allow the reactions to take place under relatively mild and non-toxic conditions. Organotrifluoroborates also allow the carbon-boron bond to remain intact through multiple steps, providing more flexibility as to when the cross-coupling reaction can take place. Potassium organotrifluoroborates feature a low molecular weight and a reliable stoichiometry. In addition to C-C coupling, potassium organotrifluoroborates are used in a variety of other reactions, such as 1,2- and 1,4-addition, C—O and C—N bond formation, and halogenation, and allylation.

**Below is a listing of organotrifluoroborates available from Alfa Aesar's standard catalog offering. We are continuously adding new products.**



## Reviews

Molander, Gary A.; Febo-Ayala, Wilma; Ortega-Guerra, Montserrat, 'Facile Synthesis of Highly Functionalized Ethyltrifluoroborates', *Journal of Organic Chemistry*, 2008, 73(15), 6000-6002.

Darses, Sylvain; Genet, Jean-Pierre, 'Potassium Organotrifluoroborates: New Perspectives in Organic Synthesis', *Chemical Reviews* (Washington, DC, United States), 2008, 108(1), 288-325.

Stefani, Helio A.; Cella, Rodrigo; Vieira, Adriano S., 'Recent Advances in Organotrifluoroborates chemistry', *Tetrahedron*, 2007, 63(18),

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