PROCESSES TO CONTROL FOULING AND IMPROVE COMPOSITIONS

ABSTRACT

Improved reaction processes comprise reacting a mixture to form a product comprising a metal alkyl, metal oxide, or mixture thereof and then passing said product to a post-reactor heat exchanger. The improvement comprises one or more of the following: (1) reacting said metal alkyl compound with an acid to produce a soluble metal ester; or (2) adding an ionic surfactant; or (3) adding a mixture comprising an antioxidant to the product under conditions sufficient to avoid formation of significant amounts of insoluble metal or metal compounds derived from said metal alkyl compound; or (4) purging said post-reactor heat exchanger with an inert gas under conditions to remove metal oxide from the post-reactor heat exchanger.

[Fig. 1]