Claims

1. A continuous process for the production of an alkyl ester product comprising the steps of carbonylating ethylene with carbon monoxide in the presence of C_{1-6} alkanol co-reactant to form the said alkyl ester product, wherein the carbonylation takes place in the presence of a catalyst system comprising;

    a. a bidentate ligand,
    b. a catalytic metal selected from a group 8, 9 or 10 metal or a compound thereof, and
    c. a sulphonic acid capable of forming an acid alkyl ester with the C_{1-6} alkanol,

    the process including the step of separating the formed alkyl ester product from a carbonylated crude product stream by suitable treatment effective to vaporise the alkyl ester product in a single stage flash distillation column and provide a purified alkyl ester product stream separated from the said bidentate ligand and catalytic metal, wherein the said distillation column includes further separation means ~~that~~ effective to provide further separation of the product from the ligand and catalytic metal~~, and wherein the further separation means reduce acid build-up in the reactor~~.

2. A process as claimed in claim 1, wherein the further separation means is packing in or associated with the upper part of the flash distillation column and/or is provided by trays.