Claims

1. A process for the production of dialkyl succinate from a feedstock comprising maleic anhydride, said process comprising the steps of:

   (a) providing the feed in the liquid phase to a reactor operated at a temperature of at least about 150°C;

   (b) contacting said feed with hydrogen at a pressure of at least about 300 psig (2170 kPa) in the presence of an acid tolerant catalyst and an alkanol wherein at least some of the carbon carbon double bonds of the maleic anhydride are hydrogenated to form succinic acid and that the heat generated promotes esterification to dialkyl succinate in situ; and

   (c) recovering a stream comprising dialkyl succinate from the reactor.

2. A process according to Claim 1 wherein the feed to the reactor comprises at least 90% maleic anhydride.

3. A process according to Claim 1 or 2 wherein the alkanol is methanol.

4. A process according to any one of Claims 1 to 3 wherein the reaction is carried out at a temperature of from 150°C to 240°C.

5. A process according to any one of Claims 1 to 4 wherein the esterification reaction is carried out in the absence of a catalyst.

6. A process according to any one of Claims 1 to 4 wherein an esterification catalyst is used.

7. A process according to Claim 6 wherein a combined catalyst is used.

8. A process according to any one of Claims 1 to 7 wherein the saturation reaction is carried out at a temperature in the range of from 150°C to 240°C.

9. A process according to any one of Claims 1 to 8 wherein a hydrogen pressure of 300 psig (2170 kPa) to 900 psig (6310 kPa) is used.

10. A process according to any one of Claims 1 to 9 wherein the any monoalkyl succinate produced is recycled to the reactor.