C L A I M S

1. Process for removing an alkanol impurity from a stream containing an organic carbonate and the alkanol impurity, comprising contacting the stream with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase.

2. Process according to claim 1, wherein the organic carbonate is a di(C_1-C_5)alkyl carbonate, preferably diethyl carbonate; or a di(C_5-C_7)aryl carbonate; or a (C_1-C_5)alkyl (C_5-C_7)aryl carbonate; or a cyclic (C_1-C_{10}) alkylene carbonate; or a mixture thereof.

3. Process according to any one of the preceding claims, wherein the alkanol impurity is an ether alkanol, more specifically an alkoxy alkanol, most specifically 2-ethoxyethanol.

4. Process according to claim 3, wherein the organic carbonate is diethyl carbonate and the alkanol impurity is 2-ethoxyethanol.

5. Process according to any one of the preceding claims, wherein the extraction solvent is selected from the group consisting of water, C_1-C_4 aliphatic ketones, C_1-C_4 aliphatic alcohols and C_1-C_4 aliphatic carboxylic acids.

6. Process according to any one of the preceding claims, wherein the temperature is comprised in the range of from 0 to 40 °C, preferably 1 to 30 °C, more preferably 2 to 25 °C, and most preferably 2 to 10 °C.

7. Process according to any one of the preceding claims, wherein the stream containing an organic carbonate and the alkanol impurity is obtained by a process for the

preparation of a dialkyl carbonate and an alkanediol comprising:

(a) reacting an alkylene carbonate and an alkanol in the presence of a transesterification catalyst to obtain a product mixture containing unconverted alkylene carbonate, unconverted alkanol, dialkyl carbonate, alkanediol and an alkanol impurity;

(b) separating unconverted alkylene carbonate and alkanediol from the product mixture to obtain a top stream containing unconverted alkanol, dialkyl carbonate and the alkanol impurity;

(c) recovering the alkanediol; and

(d) separating unconverted alkanol from the top stream containing unconverted alkanol, dialkyl carbonate and the alkanol impurity obtained in step (b) to obtain a bottom stream containing dialkyl carbonate and the alkanol impurity,

which process further comprises

(e) contacting the bottom stream containing dialkyl carbonate and the alkanol impurity obtained in step (d) with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase.

8. Process according to claim 7, wherein the alkylene carbonate is ethylene carbonate, the unconverted alkanol is ethanol, the dialkyl carbonate is diethyl carbonate, the alkanediol is monoethylene glycol and the alkanol impurity is 2-ethoxyethanol.

9. Process for making a diaryl carbonate, comprising contacting, in the presence of a transesterification catalyst, an aryl alcohol with a stream containing a dialkyl carbonate from which stream an alkanol impurity has been removed in accordance with the process of any one of claims 1-8.

10. Process for making a diaryl carbonate, comprising contacting a stream containing a dialkyl carbonate and an alkanol impurity with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase in accordance with the process of any one of claims 1-8, and then contacting, in the presence of a transesterification catalyst, an aryl alcohol with the stream containing the dialkyl carbonate.

CLAIMS

1. Process for removing an alkanol impurity from a stream containing an organic carbonate and the alkanol impurity, comprising contacting the stream with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase, wherein the organic carbonate is a di(C_1-C_5)alkyl carbonate and the alkanol impurity is an alkoxy alkanol and wherein the amount of the alkanol impurity in the stream containing the organic carbonate and the alkanol impurity is comprised in the range of from 0.1 to 10 wt.%, and wherein the stream containing an organic carbonate and the alkanol impurity is a stream that has been produced from reacting an alkanol with an alkylene carbonate and wherein contacting of said stream with the extraction solvent is performed after the step wherein dialkyl carbonate is separated from unconverted alkanol by means of distillation.

2. Process according to claim 1, wherein the di(C_1-C_5)alkyl carbonate is diethyl carbonate.

3. Process according to any one of the preceding claims, wherein the alkanol impurity is 2-ethoxyethanol.

4. Process according to claim 3, wherein the organic carbonate is diethyl carbonate and the alkanol impurity is 2-ethoxyethanol.

5. Process according to any one of the preceding claims, wherein the extraction solvent is selected from the group consisting of water, C_1-C_4 aliphatic ketones, C_1-C_4 aliphatic alcohols and C_1-C_4 aliphatic carboxylic acids.

6. Process according to any one of the preceding claims, wherein the temperature is comprised in the range of from 0 to 40 °C.

7. Process according to claim 6, wherein the temperature is comprised in the range of from 1 to 30 °C.

8. Process according to claim 7, wherein the temperature is comprised in the range of from 2 to 25 °C.

9. Process according to claim 8, wherein the temperature is comprised in the range of from 2 to 10 °C.

10. Process according to any one of the preceding claims, wherein the stream containing an organic carbonate and the alkanol impurity is obtained by a process for the preparation of a dialkyl carbonate and an alkanediol comprising:

(a) reacting an alkylene carbonate and an alkanol in the presence of a transesterification catalyst to obtain a product mixture containing unconverted alkylene carbonate, unconverted alkanol, dialkyl carbonate, alkanediol and an alkanol impurity;

(b) separating unconverted alkylene carbonate and alkanediol from the product mixture to obtain a top stream containing unconverted alkanol, dialkyl carbonate and the alkanol impurity;

(c) recovering the alkanediol; and

(d) separating unconverted alkanol from the top stream containing unconverted alkanol, dialkyl carbonate and the alkanol impurity obtained in step (b) to obtain a bottom stream containing dialkyl carbonate and the alkanol impurity,

which process further comprises

(e) contacting the bottom stream containing dialkyl carbonate and the alkanol impurity obtained in step (d) with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase.

11. Process according to claim 10, wherein the alkylene carbonate is ethylene carbonate, the unconverted alkanol

is ethanol, the dialkyl carbonate is diethyl carbonate, the alkanediol is monoethylene glycol and the alkanol impurity is 2-ethoxyethanol.

12. Process for making a diaryl carbonate, comprising contacting, in the presence of a transesterification catalyst, an aryl alcohol with a stream containing a dialkyl carbonate from which stream an alkanol impurity has been removed in accordance with the process of any one of claims 1-11.

13. Process for making a diaryl carbonate, comprising contacting a stream containing a dialkyl carbonate and an alkanol impurity with an extraction solvent and separating the extraction solvent phase from the organic carbonate phase in accordance with the process of any one of claims 1-11, and then contacting, in the presence of a transesterification catalyst, an aryl alcohol with the stream containing the dialkyl carbonate.

14. Process according to claim 12 or 13, wherein the diaryl carbonate is diphenyl carbonate and the aryl alcohol is phenol.