CLAIMS

1. A composition comprising at least one compound selected from hydroquinone and catechol, characterized in that it additionally comprises between 0.1 and 10 000 ppm of at least one compound selected from 2-(alkoxy)phenol, 4-(alkoxy)phenol, 2-(alkyl)phenol, 4-(alkyl)phenol, (alkyl)catechol, (alkyl)hydroquinone and alkoxybenzene wherein the alkyl is selected from the group consisting of tert-butyl, isopropyl and 2,2-dimethylpropyl and the alkoxy is selected from the group consisting of tert-butoxy, isopropoxy and 2,2-dimethylpropoxy..

2. The composition as claimed in claim 1, comprising at least 80% of hydroquinone and between 0.1 and 1000 ppm of at least one compound selected from 2-(alkoxy)phenol, 4-(alkoxy)phenol, (alkyl)catechol and (alkyl)hydroquinone.

3. The composition as claimed in any one of claims 1 to 2, comprising at least 80% of catechol and between 0.1 and 1000 ppm of at least one compound selected from 2-(alkyl)phenol and 4-(alkyl)phenol.

4. The composition as claimed in claim 1, comprising at least one compound selected from hydroquinone and catechol, characterized in that it additionally comprises between 0.1 and 10 000 ppm of at least one compound selected from 2-(*tert*-butoxy)phenol, 4-(*tert*-butoxy)phenol, 2-(*tert*-butyl)phenol, 4-(*tert*-butyl)phenol, (*tert*-butyl)catechol, (*tert*-butyl)hydroquinone and *tert*-butoxybenzene.

5. The composition as claimed in claim 1, comprising at least one compound selected from hydroquinone and catechol, characterized in that it additionally comprises between 0.1 and 10 000 ppm of at least one compound selected 2-(isopropoxy)phenol, 4-(isopropoxy)phenol, 2-isopropylphenol, 4-isopropylphenol, isopropylcatechol, isopropylhydroquinone and isopropylbenzene.

6. A process for the preparation of a composition comprising at least one compound selected from hydroquinone and catechol defined as claimed in any one of claims 1 to 5, characterized in that it comprises a step (a) of reaction of phenol with

hydrogen peroxide in the presence of a catalyst, in a solvent comprising an alcohol, or a mixture of alcoholsselected from the group consisting of isopropanol, 2,2-dimethylpropanol and *tert*-butanol.

7. The process as claimed in claim 6, characterized in that it additionally comprises at least one step (b) of purification of the composition obtained in step (a).

8. The process as claimed in claim 7, characterized in that it additionally comprises a step (c) of separation of the hydroquinone and catechol, optionally at least one step (d) of shaping the purified products obtained in step (c), it being possible for the products obtained in step (d) to be crystalline or in amorphous powder form.

9. The process as claimed in any one of claims 6 to 8, characterized in that the catalyst is a heterogeneous catalyst, preferentially a titanium-comprising zeolite, preferably a TS-1, TS-2, Ti-MWW or Ti-MCM68, more preferentially a TS-1.