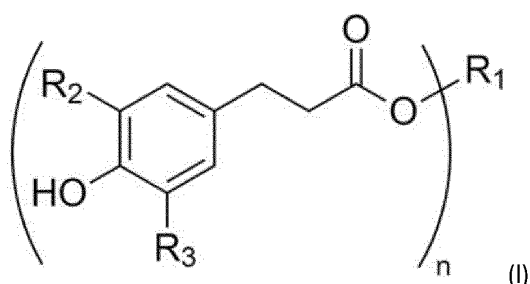


CLAIMS

1. A stabilising composition for a polyol and/or a polyurethane, comprising:
 - i. a first derivatised phenolic antioxidant having a molecular weight of at least about 400 g/mol and a melting point of less than about 100°C ;
 - ii. a second derivatised phenolic antioxidant having lower steric hindrance than the first derivatised phenolic antioxidant, which is a solid at ambient conditions; and
 - iii. a secondary antioxidant comprising a phosphite and/or a thioester.
2. The stabilising composition according to Claim 1 which is absent any diphenylamine and/or alkylated diphenylamine.
3. The stabilising composition according to Claim 1 or Claim 2, wherein the contribution to VOC of the first derivatised phenolic antioxidant is less than about 10 ppm and/or wherein the contribution to FOG of the first derivatised phenolic antioxidant is less than about 100 ppm.
4. The stabilising composition according to any one of claims 1 to 3, wherein the first derivatised phenolic antioxidant comprises one or more derivatised phenolic antioxidants of formula (I):



wherein n is 1 or 2;

wherein R₁ is a linear or branched alkyl group having from 1 to 30 carbons, optionally substituted with one or more ether groups; and

wherein R₂ and R₃ are each independently selected from straight or branched chain alkyl groups having from 1 to 5 carbon atoms.

5. The stabilising composition according to Claim 4, wherein both R₂ and R₃ are t-butyl groups.

6. The stabilising composition according to any one of claims 1 to 5, wherein the first derivatised phenolic antioxidant comprises 3,5-bis(1,1-dimethylethyl)-4-hydroxy-benzenepropanoic acid, C13-15 alkyl esters; a blend of 3,5-bis(1,1-dimethylethyl)-4-hydroxy-benzenepropanoic acid, C13-15 alkyl esters and tetrakismethylene (3,5-di-t-butyl-4-hydroxyhydrocinnamate) methane; octadecyl-3-(3',5'-di-t-butyl-4'-hydroxyphenyl) propionate; and/or a blend of octadecyl-3-(3',5'-di-t-butyl-4'-hydroxyphenyl) propionate and tetrakismethylene (3,5-di-t-butyl-4-hydroxyhydrocinnamate) methane.

7. The stabilising composition according to any one of claims 1 to 6, wherein the first derivatised phenolic antioxidant is present in the stabilising composition in an

amount of from about 30 wt. % to about 95 wt. %, from about 40 wt. % to about 95 wt. %, from about 50 wt. % to about 95 wt. %, or from about 60 wt. % to about 90 wt. %, based on the total weight of the stabilising composition.

8. The stabilising composition according to any one of claims 1 to 7, wherein the second derivatised phenolic antioxidant has a lower molecular weight than the first derivatised phenolic antioxidant.
9. The stabilising composition according to any one of claims 1 to 8, wherein the second derivatised phenolic antioxidant has a molecular weight of lower than about 400 g/mol.
10. The stabilising composition according to any one of claims 1 to 9, wherein the second derivatised phenolic antioxidant comprises:
 - i. a mono-hydroxybenzene, optionally a bridged bisphenol; and/or
 - ii. a di-hydroxybenzene.
11. The stabilising composition according to any one of claims 1 to 10, wherein the second derivatised phenolic antioxidant is present in the stabilising composition in an amount of from about 0.1 wt. % to about 50 wt. %, from about 0.5 wt. % to about 45 wt. %, from about 1 wt. % to about 40 wt. %, from about 5 wt. % to about 35 wt. %, from about 1 wt. % to about 20 wt. %, or from about 5 wt. % to about 20 wt. %, based on the total weight of the stabilising composition.

12. The stabilising composition according to any one of claims 1 to 11, wherein the phosphite comprises one or more alkyl phosphites, optionally one or more trialkyl phosphites.
13. The stabilising composition according to any one of claims 1 to 12, wherein the secondary antioxidant is present in the stabilising composition in an amount of from about 0.01 wt. % to about 20 wt. %, from about 0.05 wt. % to about 15 wt. %, or from about 0.1 wt. % to about 10 wt. %, based on the total weight of the stabilising composition.
14. The stabilising composition according to any one of claims 1 to 13 which has a melting point of less than about 100°C.
15. The stabilising composition according to any one of claims 1 to 14, wherein the contribution to VOC of the stabilising composition is less than about 20 ppm, less than about 15 ppm, less than about 10 ppm, or less than about 5 ppm.
16. The stabilising composition according to any one of claims 1 to 15, wherein the contribution to FOG of the stabilising composition is less than about 200 ppm, less than about 150 ppm, less than about 100 ppm, or less than about 50 ppm.
17. A stabilising composition for a polyol and/or a polyurethane, comprising:
- a) a first derivatised phenolic antioxidant having a molecular weight of at least about 400 g/mol effective to provide a contribution to VOC of less than

about 10 ppm and/or a contribution to FOG of less than about 100 ppm, and having a melting point of less than about 100°C;

- b) a second derivatised phenolic antioxidant having lower steric hindrance than the first derivatised phenolic antioxidant, which is a solid at ambient conditions; and
- c) a secondary antioxidant comprising a phosphite and/or a thioester.

18. A stabilising composition for a polyol and/or a polyurethane, comprising:

- a) a first derivatised phenolic antioxidant having a contribution to VOC of less than about 10 ppm and/or a contribution to FOG of less than about 100 ppm, and having a melting point of less than about 100°C;
- b) a second derivatised phenolic antioxidant having lower steric hindrance than the first derivatised phenolic antioxidant, which is a solid at ambient conditions; and
- c) a secondary antioxidant comprising a phosphite and/or a thioester.

19. The stabilising composition according to any one of claims 1 to 18, which when incorporated into a polyurethane foam causes the foam to undergo, on the application of a microwave scorch test, a colour change ΔE less than that of an equivalent foam into which an equivalent amount of industry-available stabilising composition (optionally any one of industry-available stabilising composition 1, 2, 3 or 4) has been incorporated..

20. The stabilising composition according to any one of claims 1 to 19, which when incorporated into a polyurethane foam exhibits a contribution to VOC and/or FOG,

as measured according to standard test method VDA 278, less than the contribution exhibited by an equivalent foam into which an equivalent amount of industry-available stabilising composition (optionally any one of industry-available stabilising composition 1, 2, 3 or 4) has been incorporated.

21. A fire retardant blend, comprising:

- i. a stabilising composition according to any one of claims 1 to 20; and
- ii. a fire retardant.

22. The use of the stabilising composition according to any one of claims 1 to 20 or the fire retardant blend of Claim 21 to stabilise a polyol and/or a polyurethane.

23. A stabilised composition, comprising:

a polyol and/or a polyurethane; and
the stabilising composition according to any one of claims 1 to 20 or the fire retardant blend of Claim 21.

24. The stabilised composition according to Claim 23, wherein the polyurethane is a polyurethane foam, optionally wherein the polyurethane foam has a density of greater than 15 kg/m³.

25. The stabilised composition according to Claim 23 or Claim 24, wherein the stabilising composition is present in the stabilised composition in an amount of from about 0.01% to about 10%, from about 0.01% to about 5%, from about 0.01%

to about 3.5% or from about 0.01% to about 2% by weight of the polyol and/or polyurethane.