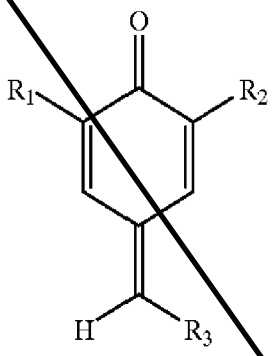
CLAIMS

1. A method for inhibiting the polymerization of vinyl aromatic monomer comprising adding to said monomer an effective polymerization inhibiting amount of a compound comprising (A) a quinone methide derivative having the formula

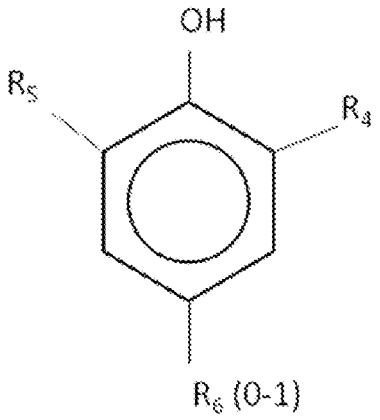


wherein:.

R_1 and R_2 are independently H, C_4 to C_{18}alkyl; C_5 to C_{12} cycloaklyl; or C_7 to C_{15} phenylalkyl, and

R_3 is aryl, or aryl substituted with C_1 to C_6 alkyl, alkoxy, hydroxy, nitro, amino, carboxy, or mixtures thereof; and

(B) a phenol compound having the formula



wherein R_4 and R_5 may be the same or different and are chosen from C_1-C_{20} alkyl, C_1-C_{30} alkaryl and substituted C_1-C_{30} alkaryl; R_6, when present, is selected from C_1-C_{20} alkyl, thiophenol, substituted thiophenol, C_1-C_{40} alkanoic acid ester, C_1-C_{30} alkaryl, substituted C_1-C_{30} alkaryl, C_1-C_6 alkylamino, C_1-C_6 alkoxy, amine, polynuclear aryl and substituted polynuclear aryli.

2. The method as recited in claim 1 wherein the weight ratio of A to B is about 90:10 to about 10:90.

3. The method as recited in claim 2 wherein said quinone methide derivative A) is 2,6-di-tert-butyl-4-benzylidene-cyclohexa-2,5-dienone.

4. The method as recited in claim 3 wherein said phenol compound B) is 2,6-di-tert-butyl phenol.

5. The method as recited in claim 4 wherein from about 1,-10,000 ppm of A and B collectively is brought into contact with said vinyl aromatic monomer, based on 1 million parts of said vinyl aromatic monomer.

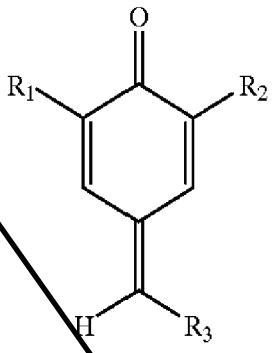
6. The method as recited in claim 5 wherein said vinyl aromatic monomer comprises styrene monomer.

7. The method as recited in claim 5 wherein the weight ratio of A:B is about 70:30.

8. The method as recited in claim 7 further comprising the step of heating said styrene monomer.

9. The method as recited in claim 7 further comprising the step of distilling said styrene monomer to remove impurities therefrom.

10. Vinyl aromatic monomer anti-polymerization composition comprising a liquid carrier and dissolved or dispersed therein A) a quinone methide derivative having the formula

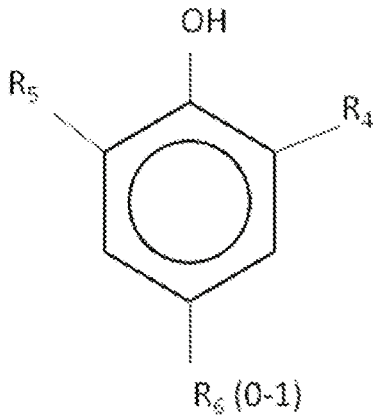


wherein:.

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(B) a phenol compound having the formula



wherein R_4 and R_5 may be the same or different and are chosen from C_1-C_{20} alkyl, C_1-C_{30} alkaryl and substituted C_1-C_{30} alkaryl; R_6, when present, is selected from C_1-C_{20} alkyl, thiophenol, substituted thiophenol, C_1-C_{40} alkanoic acid ester, C_1-C_{30} alkaryl, substituted C_1-C_{30} alkaryl, C_1-C_6 alkylamino, C_1-C_6 alkoxy, amine, polynuclear aryl and substituted polynuclear aryli.

11. Vinyl aromatic monomer anti-polymerization composition as recited in claim 10 wherein A) and B) are present in a weight ratio of about 90:10 to about 10:90.

12. Vinyl aromatic monomer anti-polymerization composition as recited in claim 11 wherein said quinone methide derivative A) is 2,6-di-tert-butyl-4-benzylidene-cyclohexa-2,5-dienone.

13. Vinyl aromatic monomer anti-polymerization composition as recited in claim 12 wherein said phenol compound B) is 2,6-di-tert-butyl phenol.

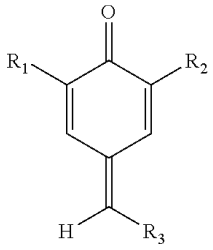
14. Vinyl aromatic monomer anti-polymerization composition as recited in claim 12 wherein said liquid carrier comprises a non-polar organic solvent and wherein A) and B) are both dissolved in said solvent.

15. Vinyl aromatic monomer anti-polymerization composition as recited in claim 14 wherein said non-polar organic solvent comprises heavy aromatic naphtha or xylene.

16. Vinyl aromatic monomer anti-polymerization composition as recited in claim 10 further comprising styrene monomer.

CLAIMS

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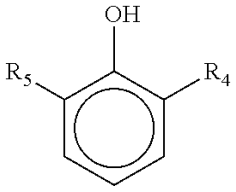


wherein:

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wherein R_4 and R_5 may be the same or different and are chosen from C_1-C_{20} alkyl, C_1-C_{30} alkaryl and substituted C_1-C_{30} alkaryl.

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3. The method as recited in claim 2 wherein said quinone methide derivative A) is 2,6-di-tert-butyl-4-benzylidene-cyclohexa-2,5-dienone.

4. The method as recited in claim 3 wherein said phenol compound B) is 2,6-di-tert-butyl phenol.

5. The method as recited in claim 4 wherein from about 1-10,000 ppm of A and B collectively is brought into contact with said vinyl aromatic monomer, based on 1 million parts of said vinyl aromatic monomer.

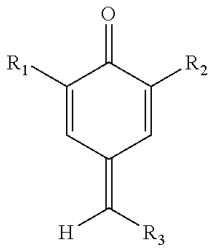
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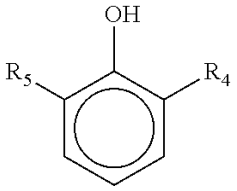


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14. Vinyl aromatic monomer anti-polymerization composition as recited in claim 12 wherein said liquid carrier comprises a non-polar organic solvent and wherein A) and B) are both dissolved in said solvent.

15. Vinyl aromatic monomer anti-polymerization composition as recited in claim 14 wherein said non-polar organic solvent comprises heavy aromatic naphtha or xylene.

16. Vinyl aromatic monomer anti-polymerization composition as recited in claim 10 further comprising styrene monomer.