

CLAIMS

1. Composition comprising:

(i) at least one compound of formula (I):



wherein A is a C₂-C₅ alkylene, R₁, R₂ and R₃, identical or different, are a C₁-C₆ alkyl, and

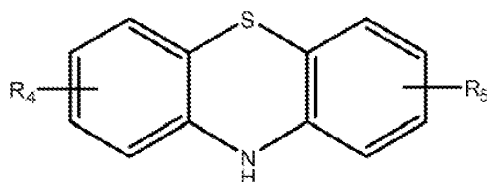
(ii) at least one free-radical polymerization inhibitor.

2. Composition according to claim 1 wherein the at least one free-radical polymerization inhibitor is selected from the group consisting of phenothiazine derivative, para-methoxyphenol and TEMPO derivative.

3. Composition according to claim 1 or 2 wherein the at least one compound of formula (I) is methyl-5-(dimethylamino)-2-methyl-5-oxopentanoate.

4. Composition according to any of the preceding claims wherein the amount of compound of formula (I) is of at least 30% by weight based on the total weight of the composition, preferably at least 40%, more preferably at least 50%, still more preferably at least 60%.

5. Composition according to any of the preceding claims wherein the phenothiazine derivative is a compound of general formula (II):



Formula (II)

wherein R₄ and R₅ are each, identical or different, selected from the group consisting of H, C₁-C₁₂-alkyl.

6. Composition according to any of the preceding claims comprising at least 5% by weight of free-radical polymerization inhibitor(s) based on the total weight of the composition, preferably at least 10% by weight, more preferably at least 15% by weight, still more preferably at least 20% by weight and very particularly at least 30% by weight, in particular at least 35% by weight.

7. Composition according to any of the preceding claims comprising between 2.5 and 12.5% by weight of para-methoxyphenol based on the total weight of the composition.
8. Composition according to any of the preceding claims further comprising a glycol ether solvent, in particular diethylene glycol monomethylether (DEGME), or diethylene glycol monobutylether (DEGBE).
9. Composition according to any of the preceding claims comprising at least one further inhibitor, in particular selected from the group consisting of hydroquinone, catechol, 2,6-di-tert-butyl-4-methylphenol (BHT), tert-butylhydroquinone (TBHQ), 4-tert-butylcatechol (TBC), tocopherol derivatives, vitamin E, para-benzoquinone, derivatives of phenylene diamines, aromatic nitro or nitroso derivatives, manganese complexes, preferably manganese acetate, copper complexes having an oxidation state of 2, preferably copper dibutyl dithiocarbamate or copper acetate.
10. Method for immediately terminating free-radical polymerization by adding a composition according to any of claims 1 to 9 to a composition comprising at least one free-radically polymerizable monomer.
11. Method according to claim 10 wherein the free-radically polymerizable monomer comprises acrylonitrile, acrolein, methacrolein, acrylic acid, methacrylic acid, acrylic esters and/or methacrylic esters.
12. Use of a composition according to any of claims 1 to 9 for stabilizing a free-radically polymerizable monomer.
13. Use of a composition according to any of claims 1 to 9 for immediately stopping free-radical polymerization of a free-radically polymerizable monomer.
14. Use according to any of claims 12 to 13 wherein the free-radically polymerizable monomer comprises acrylonitrile, acrolein, methacrolein, acrylic acid, methacrylic acid, acrylic esters and/or methacrylic esters.
15. Use of a composition according to any of claims 1 to 9 at a temperature between -20°C and 50°C.
16. Use of a compound of formula (I) in a composition for stabilizing a free-radically polymerizable monomer and/or for immediately stopping free-radical polymerization of a free-radically polymerizable monomer.