

CLAIMS

1. A cleaning formulation comprising:
 - a. from 10 to 99 wt% water;
 - b. from 0.8 to 40 wt% surfactant;
 - 5 c. optionally, other additives; and
 - d. from 0.2 to 20 wt% of a solvent additive of formula (I):

$$R^1-O-(AO)_n-C(=O)-R^2 \quad (I)$$

wherein:

R^1 is C_3 to C_{12} alkyl;

10 AO is an alkylene oxide group wherein each AO is independently selected from an ethylene oxide group, a propylene oxide group and a butylene oxide group and wherein at least one AO group is an ethylene oxide group;

n is from 1 to 9;

R^2 is C_6 to C_{13} alkyl or alkenyl; and

15 wherein the solvent additive has a water solubility of less than 1 wt% in deionised water at 20°C and wherein the surfactant enables the solvent additive to dissolve and/or disperse in the cleaning formulation.

 2. A cleaning formulation according to claim 1 wherein R^1 is C_4 to C_8 alkyl.
 3. A cleaning formulation according to any preceding claim wherein all of
 - 20 the alkylene oxide groups in the solvent additive are ethylene oxide groups.
 4. A cleaning formulation according to any preceding claim wherein n is from 3 to 7.
 5. A cleaning formulation according to any preceding claim wherein R_2 is C_7 to C_{11} alkyl.
 - 25 6. A cleaning formulation according to any preceding claim wherein the total number of carbon atoms in the solvent additive is from 16 to 36.
 7. A cleaning formulation according to any preceding claim wherein the weight ratio of surfactant to solvent additive is from 1:2 to 10:1, preferably from 1:1 to 5:1.
 - 30 8. A cleaning formulation according to any preceding claim wherein the surfactant comprises a non-ionic surfactant, preferably comprises at least one alcohol ethoxylate.
 9. A cleaning formulation according to any preceding claim comprising from 50 to 95wt% water.
 - 35 10. A method of hard surface cleaning comprising the steps of:
 - a. applying to a hard surface a solvent additive of formula (I):

$$R^1-O-(AO)_n-C(=O)-R^2 \quad (I)$$

wherein:

R^1 is C_3 to C_{12} alkyl;

AO is an alkylene oxide group wherein each AO is independently selected from an ethylene oxide group, a propylene oxide group and a butylene oxide group and wherein at least one AO group is an ethylene oxide group;

n is from 1 to 9;

5 R^2 is C_6 to C_{13} alkyl or alkenyl;

b. cleaning an oily and/or waxy soil from the hard surface using the solvent additive; and

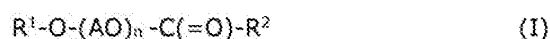
c. optionally, rinsing the hard surface with water.

11. A method according to claim 10 wherein in step a. the solvent additive is applied in the absence of a cleaning formulation.

12. A method according to claim 10 wherein in step a. the solvent additive is applied as part of a cleaning formulation according to any of claims 1 to 9.

13. A method according to claim 12 wherein the Percentage Soil Removal (% S.R.) of the oily and/or waxy soil, measured as defined herein, is at least two times greater for the cleaning formulation according to any of claims 1 to 9 when compared with an equivalent cleaning formulation which does not comprise the solvent additive.

14. Use of a solvent additive of formula (I):



wherein:

20 R^1 is C_3 to C_{12} alkyl;

AO is an alkylene oxide group wherein each AO is independently selected from an ethylene oxide group, a propylene oxide group and a butylene oxide group and wherein at least one AO group is an ethylene oxide group;

n is from 1 to 9;

25 R^2 is C_6 to C_{13} alkyl or alkenyl;

in a cleaning formulation to improve the Percentage Soil Removal (% S.R.), measured as defined herein, of an oily and/or waxy soil from a hard surface by the cleaning formulation when compared with the Percentage Soil Removal of an equivalent cleaning formulation which does not comprise the solvent additive.

30 15. Use in a cleaning formulation of a combination of:

a. an alcohol ethoxylate fatty acid ester comprising the reaction product of a C_4 to C_8 alcohol, 1 to 9 mols of ethylene oxide and a C_6 to C_{12} fatty acid; and

35 b. an alcohol ethoxylate comprising the reaction product of a C_6 to C_{14} alcohol and 1 to 12 mols of ethylene oxide;

wherein the alcohol ethoxylate fatty acid ester has a water solubility of less than 1 wt% in deionised water at 20°C and the alcohol ethoxylate improves the dispersion and/or dissolution of the alcohol ethoxylate fatty acid ester in the cleaning formulation.