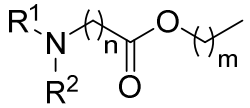
CLAIMS

1. A formulation for cleaning, comprising: at least one surfactant of Formula I,



Formula I

wherein R^1 and R^2 may be the same or different, and may be selected from the group consisting of hydrogen and C_1-C_6 alkyl, wherein the C_1-C_6 alkyl may optionally be substituted with one or more substituents selected from the group consisting of hydroxyl, amino, amido, sulfonyl, sulfonate, carbonyl, carboxyl, and carboxylate;

n is an integer from 2 to 5 (including 2 and 5);

m is an integer from 9 to 20 (including 9 and 20);

the terminal nitrogen is optionally further substituted with R^3, wherein R^3 is selected from the group consisting of hydrogen, oxygen, hydroxyl, and C_1-C_6 alkyl, wherein the C_1-C_6 alkyl may optionally be substituted with one or more substituents selected from the group consisting of hydroxyl, amino, amido, sulfonyl, sulfonate, carbonyl, carboxyl, and carboxylate; an optional counterion associated with the compound which, if present, is selected from the group consisting of chloride, bromide, iodide, and hydroxide; and

at least one detergent or at least one soap,

wherein the at least one detergent or soap is selected from the group consisting of: anionic detergents, cationic detergents, non-ionic detergents, and zwitterionic detergents.

2. The formulation of claim 1 or claim 2, wherein the soap is of the general formula:

$$(RCO_2^-)_n\ M^{n+}$$

wherein R includes an alkly group, M is a metal, and $^{n+}$ is either +1 or +2.

3. The formulation of any of claims 1-2, further comprising: at least one builder.

4. The formulation of claim 3, wherein the at least one builder is at least one compound selected from the group consisting of: tripolyphosphates, nitrilloacetic acid salts, zeolites, calcite/carbonate, citrate or polymers, sodium, pyrophosphate, orthophosphate, sodium aluminosilicate, inorganic salts of alkaline agents, inorganic salts of alkali metals, sulfates, silicates, and metasilicates.

5. The formulation of any of claims 1-4, further comprising: at least one bleach.

6. The formulation of claim 5, wherein the at least one bleach at is at least one compound selected from the group consisting of: metal borates, persalts, peroxyacids, percarbonates, perphophates, persilicates, persulfates, sodium hypochlorite, chlorine dioxide, hydrogen peroxide, sodium percarbonate, sodium perborate, peroxoacetic acid, benzol peroxide, potassium persulfate, potassium permanganate, sodium dithionite.

7. The formulation of any of claims 1-6, further comprising: at least one enzyme.

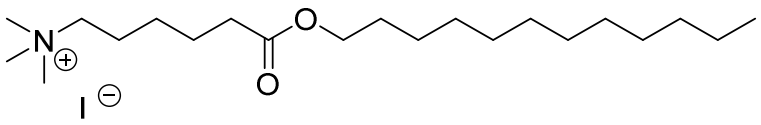
8. The formulation of claim 7, where the at least one enzyme is selected from the group consisting of: proteases, amylases, cellulases, oxidases, mannanases, peroxidases and lipases.

9. The formulation of any of claims 1-8 further comprising at least one polymer.

10. The formulations of claim 9, wherein the at least one polymer is at least one compound selected from the group consisting of: polymers of methacrylamidem; polymers of ethylenically unsaturated monomer: N,N-dialkylaminoalkyl methacrylate, N,N-dialkylaminoalkyl acrylate, N,N-dialkylaminoalkyl acrylamide, N,N-dialkylaminoalkylmethacrylamide, methacylamidoalkyl trialkylammonium salts, acrylamidoalkylltrialkylamminium salts, vinylamine, vinyl imidazole, quaternized vinyl imidazole, and diallyl dialkyl ammonium salts, polymers of: diallyl dimethyl ammonium salt, N,N-dimethyl aminoethyl acrylate, N,N-dimethyl amino ethyl methacrylate, [2-(ethacryloylamino)ethyl] trimethylammonium salts,

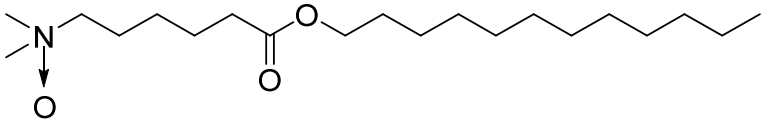
N,N-dimethylaminopropyl acrylamide, N,N-dimethylaminopropyl methacrylamide, acrylamidopropyl trimethyl ammonium salts, methacrylamidopropyl trimethylammonium salts, and quaternized vinylimidazole.

11. The formulation of any of claims 1-10, wherein the surfactant comprises at least one of 6-(dodecyloxy)-N,N,N-trimethyl-6-oxohexan-1-aminium iodide, having the following formula:



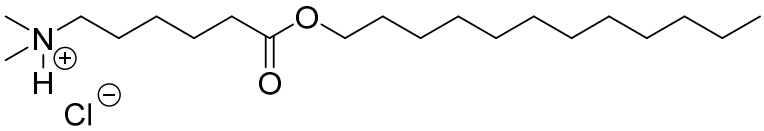
;

6-(dimethylamino)hexanoate *N*-oxide, having the following formula:



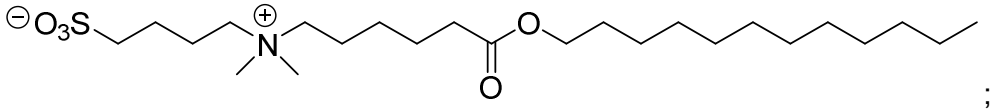
;

6-(dodecyloxy)-N,N-dimethyl-6-oxohexan-1-aminium chloride, having the following formula:



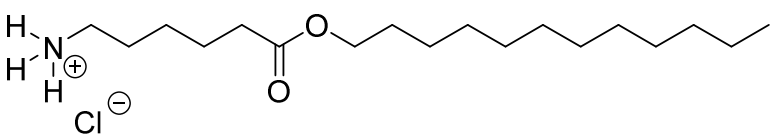
;

4-((6-(dodecyloxy)-6-oxohexyl)dimethylammonio)butane-1-sulfonate, having the following formula:



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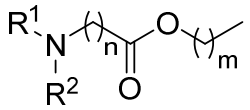
6-(dodecyloxy)-6-oxohexan-1-aminium chloride, having the following formula:



; and

combinations thereof.

12. A formulation for dry cleaning, comprising: at least one surfactant of Formula I,



Formula I

wherein R^1 and R^2 may be the same or different, and may be selected from the group consisting of hydrogen and C_1-C_6 alkyl, wherein the C_1-C_6 alkyl may optionally be substituted with one or more substituents selected from the group consisting of hydroxyl, amino, amido, sulfonyl, sulfonate, carbonyl, carboxyl, and carboxylate;

n is an integer from 2 to 5 (including 2 and 5);

m is an integer from 9 to 20 (including 9 and 20);

the terminal nitrogen is optionally further substituted with R^3, wherein R^3 is selected from the group consisting of hydrogen, oxygen, hydroxyl, and C_1-C_6 alkyl, wherein the C_1-C_6 alkyl may optionally be substituted with one or more substituents selected from the group consisting of hydroxyl, amino, amido, sulfonyl, sulfonate, carbonyl, carboxyl, and carboxylate;

an optional counterion associated with the compound which, if present, is selected from the group consisting of chloride, bromide, iodide, and hydroxide; and

at least one solvent.

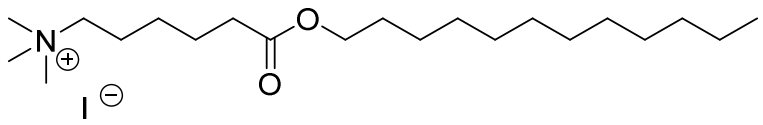
13. The formulation of claim 12, wherein the at least one solvent is at least one compound selected from the group consisting of: perchloroethylene, hydrocarbons, trichloroethylene, decamethylcyclopentasiloxane, dibutoxymthane, n-propyl bromide.

14. The formulation of claim 12 or claim 13, further comprising at least one co-solvent.

15. The formulation of claim 14, wherein the at least one co-solvent is at least one compound selected from the group consisting of: alcohols, ethers, glycol ethers, alkanes, alkenes, linear and cyclic amides, perfluorinated tertiary amines, perfluoroethers, cycloalkanes, esters, ketones, aromatics, methanol, ethanol,

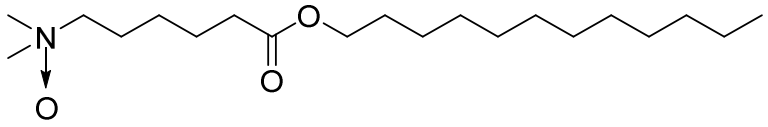
isopropanol, t-butyl alcohol, trifluoroethanol, pentafluoropropanol, hexafluoro-2-propanol, methyl t-butyl ether, methyltamyl ether, propylene glycol n-propyl ether, propylene glycol n-butyl ether, dipropylene glycol n-butyl ether, propylene glycol methyl ether, ethylene glycol monobutyl ether, trans-1,2-dichloroethylene, decalin, methyl decanoate, t-butyl acetate, ethyl acetate, glycol methyl ether acetate, ethyl lactate, diethyl phthalate, 2-butanone, N-alkyl pyrrolidone (such as N-methyl pyrrolidone, N-ethyl pyrrolidone), methyl isobutyl ketone, naphthalene, toluene, trifluorotoluene, perfluorohexane, perfluoroheptane, perfluorooctane, perfluorotributylamine, perfluoro-2-butyloxacyclopentane.

16. The formulation of any of claims 12-15, wherein the surfactant comprises at least one of 6-(dodecyloxy)-N,N,N-trimethyl-6-oxohexan-1-aminium iodide, having the following formula:



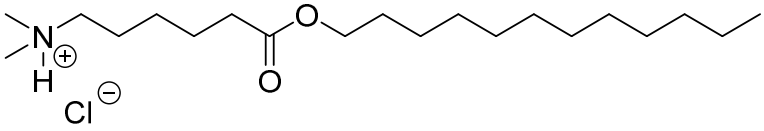
;

6-(dimethylamino)hexanoate *N*-oxide, having the following formula:



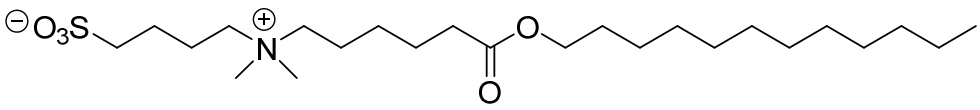
;

6-(dodecyloxy)-N,N-dimethyl-6-oxohexan-1-aminium chloride, having the following formula:



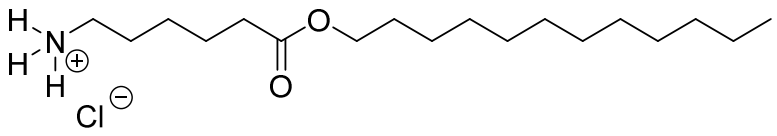
;

4-((6-(dodecyloxy)-6-oxohexyl)dimethylammonio)butane-1-sulfonate, having the following formula:



;

6-(dodecyloxy)-6-oxohexan-1-aminium chloride, having the following formula:



; and

combinations thereof.