Claims:

1. A composition comprising:

   a. water;

   b. a complexing agent;

   c. an amino($C_6$-$C_{12}$ alkyl)alcohol; and

   d. a $C_2$-$C_4$ alkanolamine;

wherein said composition is devoid of corrosion inhibitors chosen from a guanidine functional compound, a pyrazolone functional compound, or a hydroxyquinoline compound.

2. The composition of claim 1, wherein the amino($C_6$-$C_{12}$ alkyl)alcohol is an amino($C_8$-$C_{10}$ alkyl)alcohol.

3. The composition of claim 1, wherein the complexing agent is chosen from

   a. 4-(2-hydroxyethyl)morpholine; 1,2-cyclohexanediamine-N,N,N',N'-tetraacetic acid, hydroxyethyldiethylenetraminetriacetic acid; ethylenediaminetetraacetic acid; m-xylenediamine; iminodiacetic acid; trimethylamine: isopropanolamine: diisopropanolamine; piperazine; hydroxyethylpiperazine; dihydroxyethylpiperizine; glucamine; N-methylglucamine; 2-(hydroxyethyl)iminodiacetic acid; nitrilotriacetic acid; thiourea; 1,1,3,3-tetramethylurea; urea; uric acid;

   b. amino acids chosen from alanine; arginine; asparagine; aspartic acid; cysteine; glutamic acid; glutamine; histidine; isoleucine; leucine; lysine; methionine; phenylalanine; proline; serine; threonine; tryptophan; tyrosine; valine; taurine; betaine;

   c. compounds comprising phosphonic acid moieties chosen from 1-hydroxyethylidene-1,1-diphosphonic acid; 1,5,9-triazacyclododecane-N,N',N''-tris(methylenephosphonic acid); 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetrakis(methylenephosphonic acid);

nitrilotris(methylene)triphosphonic acid; diethylenetriaminepentakis(methylenephosphonic acid); aminotri(methylenephosphonic acid); bis(hexamethylene)triamine pentamethylene phosphonic acid; 1,4,7-triazacyclononane-N,N',N''-tris(methylenephosphonic acid; hydroxyethyldiphosphonate; nitrilotris(methylene)phosphonic acid; and

d. carboxylic acids chosen from 2-phosphono-butane-1,2,3,4-tetracarboxylic; carboxy ethyl phosphonic acid; aminoethyl phosphonic acid; glyphosate; ethylene diamine tetra(methylenephosphonic acid); phenylphosphonic acid; carboxylic acids chosen from oxalic acid, succinnic acid, maleic acid, malic acid, malonic acid, adipic acid, phthalic acid, citric acid, sodium citrate, potassium citrate, ammonium citrate, tricarballylic acid, trimethylolpropionic acid, picolinic acid, dipicolinic acid, salicylic acid sulfosalicylic acid, sulfophthalic acid, sulphosuccinic acid, gluconic acid, tartaric acid, glucuronic acid, 2-carboxypyridine) and/or sulfonic acids chosen from (4,5-Dihydroxy-1,3-benzenedisulfonic acid disodium salt.

4. The composition of claim 1, wherein the amino($C_6$-$C_{12}$ alkyl)alcohol is chosen from 3-amino-4-octanol; DL-2-amino-1-hexanol; 2-(butylamino)ethanol; 1-aminocyclohexanol; and 8-amino-1-octanol.

5. The composition of claim 1, wherein the amino($C_6$-$C_{12}$ alkyl)alcohol comprises 3-amino-4-octanol.

6. The composition of claim 1, further comprising a water-soluble or water-dispersible polymer.

7. The composition of claim 1, further comprising a biocide.

8. The composition of claim 1, further comprising a surfactant.

9. The composition of claim 1, further comprising a water miscible solvent and/or adjuvant.

10. The composition of claim 9, wherein the water-miscible solvent and/or adjuvant is chosen from glycerol, sorbitol, glycol ethers, and urea.

11. The composition of claim 1, comprising:

a. water;

b. choline hydroxide;

c. 1-hydroxyethylidene-1,1-diphosphonic acid;

d. monoethanolamine; and

e. an amino($C_6$-$C_{10}$ alkyl)alcohol;

wherein said composition is devoid of corrosion inhibitors chosen from a guanidine functional compound, a pyrazolone functional compound, or a hydroxyquinoline compound.

12. The composition of claim 11, wherein the amino($C_6$-$C_{10}$ alkyl)alcohol is chosen from 3-amino-4-octanol; DL-2-amino-1-hexanol; 2-(butylamino)ethanol; 1-aminocyclohexanol; and 8-amino-1-octanol.

13. The composition of claim 11, further comprising sorbitol.

14. The composition of claim 1, wherein the composition is a concentrate that contains less than 80 weight percent water.

15. The composition of claim 1, further comprising a compound chosen from morpholine, L-cysteine, dicyandiamide, hydroxy ethyl cellulose, polyvinylpyrrolidone, a polyamine, and combinations thereof.

16. A method for removing residues from a microelectronic device substrate having said residues thereon, wherein the substrate possesses at least one surface comprising a substance chosen from copper, cobalt, tungsten, molybdenum, or a dielectric composition, the method comprising:

contacting the surface of a microelectronic device substrate with a composition comprising:

a. water;

b. a complexing agent; and

c. an amino($C_6$-$C_{12}$ alkyl)alcohol; and

d. a $C_2$-$C_4$ alkanolamine;

wherein said composition is devoid of corrosion inhibitors chosen from a guanidine functional compound, a pyrazolone functional compound, or a hydroxyquinoline compound, and at least partially removing said residues from said substrate.

17. The method of claim 16, wherein the surface comprises at least one of cobalt, Copper, tungsten, and/or molybdenum.

18. The method of claim 16, wherein the surface is a dielectric chosen from tetraethyl orthosilicate, silicon-containing organic polymers, silicon-containing hybrid organic-inorganic materials, organosilicate glass, fluorinated silicate glass, and carbon-doped oxide glass.

19. The method of claim 16, wherein the composition comprises:

a. water;

b. choline hydroxide;

c. 1-hydroxyethylidene-1,1-diphosphonic acid;

d. monoethanolamine; and

e. an amino($C_6$-$C_{10}$ alkyl)alcohol.