Claims

1. A composition comprising the reaction product of:

(A) at least one compound selected from:

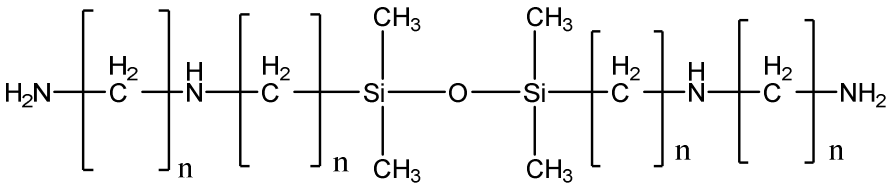
tetraalkyldisiloxane-silyldiamines;

1,3 bis(n-aminoalkyl) tetraalkylsiloxanes,

(B) phosphoric acid; and

(C) a solvent comprising water,

wherein the 1,3 bis(n-aminoalkyl) tetraalkylsiloxanes are 1,3 bis(n-aminoalkyaminoalkyl) tetraalkylsiloxanes compounds of the Formula (VI):



(VI),

wherein each n is independently 1, 2, 3, or 4.

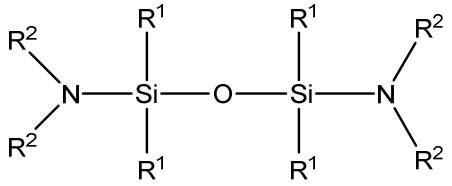
2. The composition of claim 1, further comprising a fluoride compound.

3. The composition of claim 2, wherein the fluoride compound is chosen from HF and monofluorphosphoric acid.

4. The composition of claim 1, further comprising a primary, secondary, or tertiary C_1-C_6 alkylamine, C_1-C_6 alkanolamine, or dihydrogen phosphate salt thereof.

5. The composition of claim 4, wherein the primary, secondary, or tertiary C_1-C_6 alkylamine or C_1-C_6 alkanolamine is chosen from trimethylamine or triethanolamine.

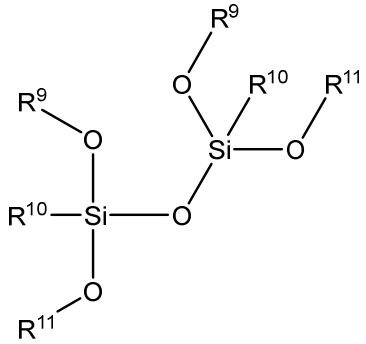
6. The composition of claim 1, wherein the tetraalkyldisiloxane-silyldiamines are compounds having the Formula (I):



(I)

wherein each R^1 and each R^2 is independently chosen from C_1-C_6 alkyl groups.

7. The composition of claim 1 further comprising a tetraalkoxy dimethyl-disiloxanes compound of the Formula (VIII):



(VIII),

wherein R^9 is C_1-C_6 alkyl, R^{10} is C_1-C_6 alkyl or aryl, and R^{11} is C_1-C_6 alkyl or C_2-C_8 alkenyl.

8. A method for removing silicon nitride from a microelectronic device, said method comprising contacting the microelectronic device with a composition comprising:

(A) at least one compound selected from:

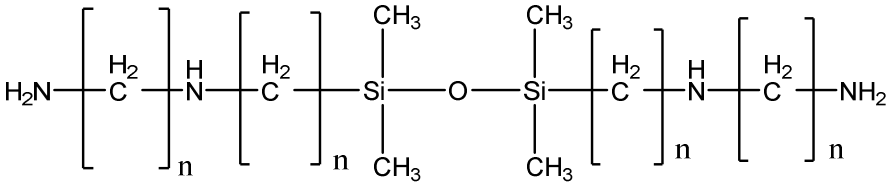
tetraalkyldisiloxane-silyldiamines;

1,3 bis(n-aminoalkyl) tetraalkylsiloxanes,

(B) phosphoric acid; and

(C) a solvent comprising water,

wherein the 1,3 bis(n-aminoalkyl) tetraalkylsiloxanes are 1,3 bis(n-aminoalkyaminoalkyl) tetraalkylsiloxanes compounds of the Formula (VI):



(VI),

wherein each n is independently 1, 2, 3, or 4.