CLAIMS

1. A solution for application onto a wafer surface, the solution comprising,

a surfactant, the surfactant being an amphoteric surfactant, the surfactant configured to enhance wetting of the wafer surface, the concentration of the surfactant in the solution being approximately in the range of 10 ppm to 2000 ppm;

wherein the solution is maintained at a pH of approximately 1.8 to 1.9 during the application onto the wafer surface;

oxalic acid dihydrate as a complexing agent; and

hypophosphorous acid as a pH adjusting agent configured to reduce the pH of the solution to approximately 1.8 to 1.9 during the application onto the wafer surface.

2. The solution of claim 1, wherein the surfactant forms a self-assembled monolayer.

3. The solution of claim 1, wherein the concentration of the surfactant in the solution is approximately in the range of 300 ppm to 700 ppm.

4. The solution of claim 1, wherein the concentration of the complexing agent is approximately in the range of 0.05 g/L to 20 g/L.

5. The solution of claim 1, wherein the concentration of the complexing agent is approximately 1 g/L.

6. The solution of claim 1, wherein the concentration of the pH adjusting agent is approximately in the range of 0.01 g/L to 20 g/L.

7. The solution of claim 1, wherein the concentration of the pH adjusting agent is approximately 8 ml/L 50 w/w %.

8. The solution of claim 1, wherein the solution does not significantly inhibit the functionality of a recirculated deposition solution in the case of cross-contamination with the deposition solution.

9. The solution of claim 1, wherein the wafer surface includes regions of a dielectric material, the regions of the dielectric material having corrosion product situated thereon prior to application of the solution.

10. The solution of claim 9, wherein the complexing agent prevents redeposition of the corrosion product.

11. The solution of claim 9, wherein the complexing agent is configured to bind to the corrosion product which has dissolved off of the wafer surface and into the solution.

12. The solution of claim 9, wherein the dielectric material has a K value of approximately less than or equal to 3.0.

13. The solution of claim 1, wherein the wafer surface includes a metallic layer, the solution being effective for rinsing corrosion product of the metallic layer from the wafer surface while reducing corrosion of the metallic layer.

14. The solution of claim 13, wherein the surfactant is configured to inhibit further corrosion of the metallic layer.

15. The solution of claim 14, wherein the surfactant forms a self-assembled monolayer on the metallic layer.

16. A solution for application onto a wafer surface, the solution comprising,

a surfactant, the surfactant being an amphoteric surfactant, the surfactant configured to enhance wetting of the wafer surface, the concentration of the surfactant in the solution being approximately in the range of 10 ppm to 2000 ppm;

wherein the solution is maintained at a pH of approximately 1.8 to 1.9 during the application onto the wafer surface;

oxalic acid dihydrate as a complexing agent; and

hypophosphorous acid as a pH adjusting agent configured to reduce the pH of the solution to approximately 1.8 to 1.9 during the application onto the wafer surface;

wherein the wafer surface includes a metallic layer, the solution being effective for rinsing corrosion product of the metallic layer from the wafer surface while reducing corrosion of the metallic layer;

wherein the surfactant forms a self-assembled monolayer on the metallic layer; and

wherein the complexing agent prevents redeposition of the corrosion product.