CLAIMS:

1. A cleaning liquid composition for cleaning a semiconductor substrate having copper wiring, the cleaning liquid composition comprising one or more basic compound containing no metal, and 0.1-10 mmol/L of one or more phosphonic acid-based chelating agent selected from a group consisting of glycine-*N*,*N*-bis(methylenephosphonic acid) (glyphosine), nitrilotris(methylenephosphonic acid) (NTMP) and a salt thereof, and having a hydrogen ion concentration (pH) of 8 to 10, with the proviso that the cleaning liquid composition does not comprise a reducing agent.

2. The cleaning liquid composition according to Claim 1, wherein the semiconductor substrate having copper wiring is a substrate after chemical mechanical polishing (CMP).

3. The cleaning liquid composition according to Claim 1 or 2, wherein the basic compound containing no metal is a quaternary ammonium compound or a straight-chain aliphatic amine.

4. The cleaning liquid composition according to any one of Claims 1 to 3, wherein it does not comprise aqueous hydrogen peroxide.

5. The cleaning liquid composition according to any one of Claims 1 to 4, wherein it does not comprise ascorbic acid.

6. The cleaning liquid composition according to any one of Claims 1 to 5, wherein it does not comprise a carboxylic acid-based chelating agent.

7. The cleaning liquid composition according to any one of Claims 1 to 6, wherein the basic compound containing no metal is a quaternary ammonium compound other than tetramethylammonium hydroxide, or an alkanolamine.

~~9.~~ 8. The cleaning liquid composition according to any one of Claims 1 to 7, wherein it further comprises one or more types of anionic or nonionic surfactant.

~~10.~~ 9. A concentrate for dilution by 10 times to 1000 times to give the cleaning liquid composition according to any one of Claims 1 to 8.

~~11.~~ 10. The concentrate according to Claim 9, wherein it is diluted with a diluent comprising water.

~~12.~~ 11. The concentrate according to Claim 9 or 10, wherein it has a pH of 10 to 12.

~~13.~~ 12. A method for cleaning a semiconductor substrate having copper wiring by use of the cleaning liquid composition according to any one of Claims 1 to 8.