Claims

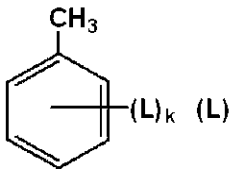
1. A semiconductor substrate cleaning method comprising a step of removing an adhesive layer provided on a semiconductor substrate by use of a remover composition, wherein

the adhesive layer is a film formed by use of an adhesive composition which contains an adhesive component (S), and the adhesive component (S) comprises a siloxane adhesive containing a polyorganosiloxane component (A) which is curable through hydrosilylation, wherein the siloxane adhesive is not a pressure-sensitive silicone adhesive;

the remover composition contains a solvent but no salt; and

the solvent includes an organic solvent represented by formula (L):

[F1]



(wherein L represents a substituent to the benzene ring, and each of a plurality of Ls represents a C1 to C4 alkyl group; and k represents the number of Ls and is an integer of 0 to 5) in an amount of 80 mass% or more.

2. A semiconductor substrate cleaning method according to claim 1, wherein the solvent includes the organic solvent

represented by formula (L) in an amount of 85 mass% or more.

3. A semiconductor substrate cleaning method according to claim 2, wherein the solvent is formed of the organic solvent represented by formula (L).

4. A semiconductor substrate cleaning method according to any one of claims 1 to 3, wherein L is a methyl group or an isopropyl group.

5. A semiconductor substrate cleaning method according to claim 1, wherein the organic solvent represented by formula (L) is at least one species selected from among toluene, mesitylene, p-cymene, and 1,2,4-trimethylbenzene.

6. A semiconductor substrate cleaning method according to any one of claims 1 to 5 above, wherein the adhesive component (S) further comprises at least one species selected from among an acrylic resin adhesive, an epoxy resin adhesive, a polyamide adhesive, a polystyrene adhesive, a polyimide adhesive, and a phenolic resin adhesive.

7. A processed semiconductor substrate production method comprising:

a first step of producing a laminate having a semiconductor substrate, a support substrate, and an adhesive layer formed from an adhesive composition;

a second step of processing the semiconductor substrate of the produced laminate;

a third step of separating the semiconductor substrate and the adhesive layer from the support substrate; and

a fourth step of removing the adhesive layer on the

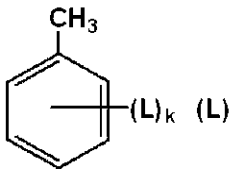
semiconductor substrate by use of a remover composition, wherein

the adhesive layer is a film formed by use of an adhesive composition which contains an adhesive component (S), and the adhesive component (S) comprises a siloxane adhesive containing a polyorganosiloxane component (A) which is curable through hydrosilylation, wherein the siloxane adhesive is not a pressure-sensitive silicone adhesive;

the remover composition contains a solvent but no salt; and

the solvent includes an organic solvent represented by formula (L):

[F2]



(L)

(wherein L represents a substituent to the benzene ring, and each of a plurality of Ls represents a C1 to C4 alkyl group; and k represents the number of Ls and is an integer of 0 to 5) in an amount of 80 mass% or more.

8. A processed semiconductor substrate production method according to claim 7, wherein the solvent includes the organic solvent represented by formula (L) in an amount of 85 mass% or more.

9. A processed semiconductor substrate production method according to claim 8, wherein the solvent is formed of

the organic solvent represented by formula (L).

10. A processed semiconductor substrate production method according to any one of claims 7 to 9, wherein L is a methyl group or an isopropyl group.

11. A processed semiconductor substrate production method according to claim 10, wherein the organic solvent represented by formula (L) is at least one species selected from among toluene, mesitylene, p-cymene, and 1,2,4-trimethylbenzene.

12. A processed semiconductor substrate production method according to any one of claims 7 to 11, wherein the adhesive component (S) further comprises at least one species selected from among an acrylic resin adhesive, an epoxy resin adhesive, a polyamide adhesive, a polystyrene adhesive, a polyimide adhesive, and a phenolic resin adhesive.