WHAT IS CLAIMED IS:

1. An etchant composition for a silicon nitride layer, comprising:

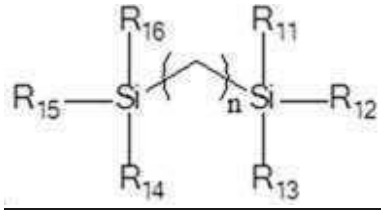
(A) phosphoric acid;

(B) silicone resin; and

(C) water,

wherein the silicone resin is polymerized by comprising at least one of the compounds represented by Chemical Formula 1 and Chemical Formula 2 below:

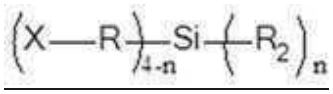
[Chemical Formula 1]



in Chemical Formula 1,

R_{11} to R_{16} are each independently selected from the group consisting of hydrogen, halogen, C1-C10 alkyl group, C1-C4 alkoxy group and acetoxy group, and n is an integer of 1 to 5,

[Chemical Formula 2]



in Chemical Formula 2,

R_2 is selected from the group consisting of hydrogen, halogen, C1-C10 alkyl group, C1-C4 alkoxy group and acetoxy group,

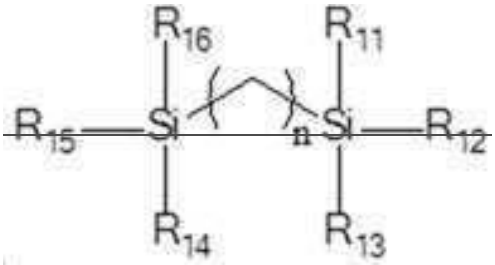
R is selected from the group consisting of C1-C10 alkyl group, C2-C10 alkenyl group and C2-C10 alkynyl group,

X comprises a functional group selected from the group consisting of hydrogen, halogen, hydroxyl group, ether group, ester group, amine group, phosphonate group, phosphate group, sulfonate group and sulfate group, and

n is an integer of 1 to 4.

2. The etchant composition of claim 1, wherein the silicone resin comprises at least one compound represented by Chemical Formula 1 and Chemical Formula 2 below:

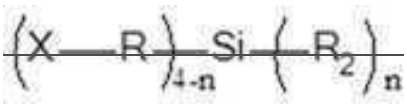
[Chemical Formula 1]



in Chemical Formula 1,

R_{11} to R_{16} are each independently selected from the group consisting of hydrogen, halogen, C1-C10 alkyl group, C1-C4 alkoxy group and acetoxy group, and n is an integer of 1 to 5,

[Chemical Formula 2]



in Chemical Formula 2,

R_2 is selected from the group consisting of hydrogen, halogen, C1-C10 alkyl group, C1-C4 alkoxy group and acetoxy group,

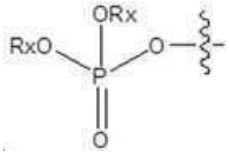
R is selected from the group consisting of C1-C10 alkyl group, C2-C10 alkenyl group and C2-C10 alkynyl group,

X comprises a functional group selected from the group consisting of hydrogen, halogen, hydroxyl group, ether group, ester group, amine group, phosphonate group, phosphate group, sulfonate group and sulfate group, and

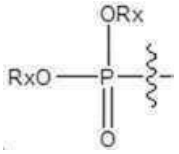
n is an integer of 1 to 4.

2~~3~~. The etchant composition of claim 1~~2~~, wherein, in Chemical Formula 2, X is selected from the group consisting of compounds represented by Chemical Formulas 2-1 to 2-9 below:

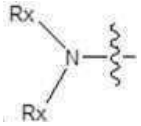
[Chemical Formula 2-1]



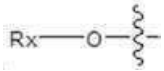
[Chemical Formula 2-2]



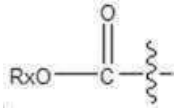
[Chemical Formula 2-3]



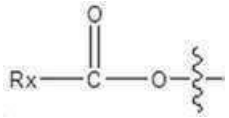
[Chemical Formula 2-4]



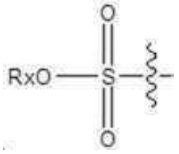
[Chemical Formula 2-5]



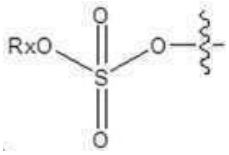
[Chemical Formula 2-6]



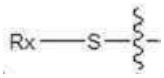
[Chemical Formula 2-7]



[Chemical Formula 2-8]



[Chemical Formula 2-9]



in Chemical Formulas 2-1 to 2-9,

Rx is each independently selected from the group consisting of hydrogen, C1-C10 alkyl group, C2-C10 alkenyl group, C2-C10 alkynyl group, and the alkyl group, the alkenyl group and the alkynyl group, each of which is substituted with a hydroxyl group.

3~~4~~. The etchant composition of claim 1, wherein the etchant composition selectively etches a nitride layer only in a multilayer structure comprising an oxide layer and a nitride layer.

4~~5~~. The etchant composition of claim 3~~4~~, wherein the oxide layer comprises SiO_2 and the nitride layer comprises SiN.

5~~6~~. The etchant composition of claim 1, comprising, based on a total weight of the composition:

60 to 95 wt% of phosphoric acid; and

0.0001 to 2.0 wt% of silicone resin.