ABSTRACT

A metal film such as an aluminum film or an aluminum alloy film is etched with good controllability, preventing a resist from bleeding, to have a proper taper configuration and superior flatness.

A water solution containing a phosphoric acid, a nitric acid, and an organic acid salt is used as an etching liquid composition used to etch the metal film on a substrate.

The organic acid salt is composed of one kind selected from a group consisting of an aliphatic monocarboxylic acid, an aliphatic polycarboxylic acid, an aliphatic oxicarboxylic acid, an aromatic monocarboxylic acid, an aromatic polycarboxylic acid and an aromatic oxycarboxylic acid, and one kind selected from a group consisting of an ammonium salt, an amine salt, a quaternary ammonium salt, and an alkali metal salt.

In addition, a concentration of the organic acid salt ranges from 0.1% to 20% by weight.

In addition, the etching liquid composition according to the present invention is used when the metal film is formed of aluminum or an aluminum alloy.