SEMICONDUCTOR DEVICE, METHOD FOR MANUFACTURING THE SAME, AND RINSING LIQUID

ABSTRACT

The invention provides a method for manufacturing a semiconductor device. The method includes: a process of applying a sealing composition for a semiconductor to a semiconductor substrate, to form a sealing layer for a semiconductor on at least the bottom face and the side face of a recess portion, the sealing composition including a polymer having a cationic functional group and a weight average molecular weight of from 2,000 to 1,000,000, each of the content of sodium and the content of potassium in the sealing composition for a semiconductor being 10 ppb by mass or less on an elemental basis, and the semiconductor substrate being provided with an interlayer insulating layer having the recess portion and a copper-containing wiring of which at least a part thereof is exposed on at least a part of the bottom face of the recess portion; and a process of subjecting a surface of the semiconductor substrate at a side at which the sealing layer has been formed to heat treatment under a temperature condition of from 200°C to 425°C, to remove at least a part of the sealing layer that has been formed on an exposed face of the wiring.

Fig. 3