Claim 1: A high-purity copper-manganese-alloy sputtering target having a content of impurity carbon of 2 wtppm or less, a composition consisting of Mn in an amount of 0.05 to 20 wt% and a balance of Cu and inevitable impurities, and a diameter of 430 mm, wherein the sputtering target has a structure such that, in formation of a film of 600 nm in thickness on a Si single crystal wafer by sputtering the sputtering target by using a sputtering apparatus under predetermined conditions, particles formed on the wafer and having a diameter of 0.08 μm or larger are in a number of 50 or less on average for 20 wafers, the predetermined conditions being a direct current power source, a power of 40 kW, a sputtering gas of Ar of 55 Pa, and a sputtering time of 6 seconds, and the particles being composed of one or more materials selected from the group consisting of carbon, a composition comprising at least one element selected from Mn, Si, and Mg, and a compound consisting of C and at least one element selected from Mn, Si, and Mg.

Claim 2: The high-purity copper-manganese-alloy sputtering target according to claim 1, wherein the particles formed on the wafer and having a diameter of 0.20 μm or larger are in a number of 30 or less on average.

Claim 3: The high-purity copper-manganese-alloy sputtering target according to claim 1 or 2 further being diffusion-bonded to a backing plate made of a copper alloy.

Claim 4: An assembly of a high-purity copper-manganese-alloy sputtering target and a backing plate, wherein the high-purity copper-manganese-alloy sputtering target has a composition consisting of 0.05 to 20 wt% of Mn and the remnant being copper and inevitable impurities including carbon in an amount of 2 wtppm or less, and the backing plate is made of a copper alloy and diffusion-bonded to the high-purity copper-manganese alloy sputtering target, wherein the high-purity copper-manganese-alloy sputtering target has a diameter of 430 mm.

Claim 5: The assembly according to claim 4, wherein Mn in the composition is in an amount of 10 to 20 wt%.

Claim 6: The high-purity copper-manganese-alloy sputtering target according to any one of claims 1, 2, and 3, wherein Mn in the alloy is in an amount of 10 to 20 wt%.