Minas Frescal is a fresh cheese consumed in Brazil and often involved in food poisoning, since its manufacturing can provide *Staphylococcus* growth and enterotoxin production, the latter usually related with *Staphylococcus* species that produce the enzyme coagulase. During two different processing batches, samples collected from different points of a manufacturing plant were evaluated: raw and pasteurized milks, coagulation tank, moulds, tables, curd cutters, floor, handlers and sealer surfaces, curd, brine and cheeses before and after packing. The CPS populations were at high levels in raw milk (9.1 x 10^5 and 3.4 x 10^5 cfu.mL^-1, respectively for first and second processing). The collection points showed less contamination during the first cheese manufacturing than during the second one, with no CPS detection in pasteurized milk, curd, brine, coagulation tank, moulds, tables, curd cutters, floor, handlers and sealer surfaces. Contamination was observed in some points during second processing: pasteurized milk (2.6 x 10^3 cfu.ml^-1), handlers (4.3 x 10^3 cfu.hand^-1), coagulation tank, moulds and tables surfaces (5.2, 1.2 and 0.8 cfu.cm^-2, respectively). The CPS incidence in cheeses showed no difference between packed or not-packed samples, even as sealer surface didn’t show any contamination. Cheeses CPS populations were 5.2 x 10^2 and 1.0 x 10^5 cfu.g^-1, respectively for first and second batches. This difference can be explained by the higher contamination occurred in several points during second cheese processing, which didn’t occur in first processing, showing how hygiene and manufacturing practices deficiencies can affect negatively cheese quality and represent a risk to consumers’ health.