

What are Kieselsol and Chitosan clearing agents and how do clearing agents work?

After the fermentation is over, the cloudy wine contains many billions of very tiny negatively charged yeast cells. These yeast cells would take a very long time to settle out to the bottom of the carboy. Even if left for a long time, some of the microscopic yeast cells will not actually fall out. Clearing agents hasten the clearing of the wine by gathering the cells into larger clumps so that they form a solid sediment. Using clearing agents also helps to improve the flavour and aging ability of the wine.

Kieselsol, an inert silica gel that is negatively charged, is added to the wine. This builds up a strong static charge in the carboy of wine. Chitosan, a positively charged polymer, made from the de-acidified outer shells of crustaceans (Chitosan is non-allergenic) is then added to the wine. The negatively charged yeast cells and Kieselsol particles are instantly attracted to the positively charged Chitosan particles to form heavy clumps that fall rapidly to the bottom, leaving a brilliant wine. All of the yeast cells, Kieselsol and Chitosan are left behind when the wine is siphoned.