

## Product Description

An acidic special silica sol of milky-white appearance. Extremely high charge intensity, thus particularly economical application of the product. Besides charge intensity, specific particle size and surface structure result in an extremely reliable efficiency along with highly economical use. Silica sol is a natural product in which, due to the high charge intensity, temporary agglomeration could occur leading to slight thickening of the product. For this reason, prior to application, shake the silica sol well or stir the silica sol intensively. Permitted according to the laws and regulations currently in force. Purity and quality are proved by specialized laboratories.

**Highly efficient special silica sol for clarification/fining**

## Aim of Treatment

Efficient clarification of wine, juice and other beverages by applying Klar-Sol Super in combination with a protein treatment of the beverages.

## Product and Effect

The favourable properties of Klar-Sol Super are due to special elaborate preparation techniques. The nature of the primary particles provides for a surface structure with extremely high charge intensity (with reference to the pH-value of the treated wines and juices). This is the reason why Klar-Sol Super acts more efficiently than the conventional alkaline 30 % silica sols, especially with regard to wines and juices with increased pH-value as well as increased content of mucuous substances.

Klar-Sol Super reacts only in combination with protein containing substances. In addition to the good clarifying effect, also polyphenols and protein substances are reduced. Fining flocculation is effected when negatively charged silica sol particles encounter or collide with positively charged gelatin colloids. The tannin content is of minor importance for flocculation. Therefore a Klar-Sol Super/protein fining will hardly be stuck. Moreover, the acidic silica sol has the special advantage to flocculate very quickly and to provide for a compact deposit of lees. Compared to the conventional alkaline silica sols, Klar-Sol Super is less dependent on the temperature of the beverages and furthermore operates in a reliable way in large enterprises where it is impossible to always differentiate from batch to batch.

## Application

The exact dosage is best determined by a pretest. It depends on the degree of cloudiness, as it is the case with all finings. In general, 20-50 mL Klar-Sol Super are sufficient for 100 L wine or juice. Only very slimy or particularly cloudy wines require higher dosages. Recommended dosage ratios:

Klar-Sol Super : gelatin	Dosage ratio	Example
Klar-Sol Super : ErbiGel <sup>®</sup>	5 : 1	50 mL Klar-Sol Super/100 L + 10 g ErbiGel <sup>®</sup> /100 L
Klar-Sol Super : Gelita-Klar <sup>®</sup>	1 : 1	50 mL Klar-Sol Super/100 L + 50 mL Gelita-Klar <sup>®</sup> /100 L
Klar-Sol Super : IsingClair-Hausenpaste	1 : 4	25 mL Klar-Sol Super/100 L + 100 mL IsingClair-Hausenpaste/100 L
Klar-Sol Super : CombiGel <sup>®</sup>	1 : 1	50 mL Klar-Sol Super/100 L + 50 mL CombiGel <sup>®</sup> /100 L

For a gelatin/silica sol fining is advantageous to add the silica sol first. Only if also a tannin correction is desired, the order of addition should be reversed. Apple juices and coloured juices should be treated with the powder gelatin ErbiGel<sup>®</sup> due to their differing tannin contents. In case of beverages with a high demand of gelatin, it is possible to modify dosage ratios (e.g. 1 part of ErbiGel<sup>®</sup> : 3-5 parts of Klar-Sol Super). IsingClair-Hausenpaste and CombiGel<sup>®</sup> are always added after the Klar-Sol Super dosage. Stir intensively after each addition.

## Storage

Store absolutely frost-protected. Shake well before use.