



**ULTRA PURE SILICON DIOXIDE IN 30% SOLUTION**

COMPOSITION

Stable aqueous 30% silicon dioxide solution, with pH between 9.0 and 10.5.

GENERAL FEATURES

Aspect: opalescent white-grey solution, odourless.

SIL FLOC contains silicon dioxide particles in colloidal suspension, with consistent, controlled and homogeneous dimension (100-150 Å) and that at wine pH have a highly negative charge. The fact that all the particles are within a strict size range ensures an enormous specific contact surface which makes SIL FLOC the ideal fining agent to use together with gelatine and isinglass.

Its fining capacity is based on reciprocal flocculation between negatively charged silicon dioxide particles and positively charged gelatine or isinglass ones. The flocculates that form due to the reaction between SIL FLOC and protein fining agents, precipitates and causes the sedimentation of the suspended particles causing turbidity. SIL FLOC application therefore accelerates the fining process, improves the clarification process and favours the compact lees formation. Furthermore, since it is not sensitive to protective colloids, it is also recommended for the fining of musts and wines obtained from grapes affected by botrytis and furthermore for those that are difficult to clarify and filter.

APPLICATIONS

Together with gelatine and isinglass for the fining of white musts, fruit juices, sweet filtrates, wines and vinegars to:

- accelerate fining lees sedimentation
- get compact lees
- prevent over-fining
- improve filterability
- eliminate unstable polyphenolic substances.

DOSAGE

White musts and fruit juices: 40-100 g/hL

Wines and sweet filtrates: 25-75 g/hL

SIL FLOC is always used in combination with gelatine or isinglass, therefore it is good to determine the application dosages and ratios according to preliminary laboratory trials. As a general guideline, for every gram of protein added (dry weight) around 10-15 millilitres of silica solution is used.

INSTRUCTIONS FOR USE

Disperse SIL FLOC directly into the entire mass to be treated in a homogeneous manner.

If the main fining objective is to clarify, it is advisable to first add SIL FLOC before adding gelatine or isinglass.

PACKAGING AND STORAGE CONDITIONS

1000 kg jar

25 kg can

Sealed package: store at temperatures above +10°C (50°F), in a cool, dry place and away from light sources.

Opened package: carefully reseal the package and keep it as above indicated. Use quickly.



## *Fining Agents*

# SIL FLOC

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### MAIN PHYSICAL AND CHEMICAL CHARACTERISTICS

pH	9 - 10.5
Density (g/L)	1210 -1225 at 20°C
Dry residue (%)	≥ 30 minimum
Turbidity (NTU)	< 100

The values were determined using official methods or with internal Esseco methods. Esseco is available to provide all other information not cited here.

Product in compliance with the characteristics requested by:  
International Oenological Codex

Product approved for enological use, according to:  
Regulation (EC) N. 606/2009