



# BENTONITE PREPARATION

Bentonite is hydrated aluminum silicate clay with negative charges. It is added to remove positively charged proteins in wine that affect protein (heat) stability.



## KWK Procedure

- 1 For small amounts (less than 20 lbs), prepare in 5 gallon buckets, otherwise use 100 gallon mixing tank or larger tanks with adequate mixing capabilities.
- 2 Use 1.5 gallons of 100-120 F water per 1 lb of Bentonite  
 For a 6% Solution use 1.6 gallons of water per 1 lb of Bentonite.
- 3 Prepare slurry by slowly adding Bentonite to the hot water while mixing.
- 4 Avoid making lumps.
- 5 Let Bentonite hydrate for at least 12-24 hours before adding to wine.

 The slurry is slowly dosed into the wine while tank is mixing. Use an air pump and 3/4" hose to pump to top of tanks or add using Venturi Method. Stir tanks with a Guth and /or pump.

No legal limits on bentonites aside from water restrictions (which is 1% of the wine).

Bentonite may be made in advance and stored depending on conditions of storage. Ideally do not keep unused Bentonite slurry for more than 2 weeks, it absorbs odors and can become mouldy. This is something which can be monitored visually and organoleptically.

## Krystal Klear Bentonite Procedure

- 1 For small amounts (less than 20 lbs), prepare in 5 gallon buckets, otherwise use 100 gallon mixing tank or larger tanks with adequate mixing capabilities.
- 2 Ensure that you have high shear mixing capabilities.
- 3 Use 1.5 gallons of cold water per 1 lb of Bentonite.
- 4 Prepare slurry by slowly adding Bentonite to the cold water while mixing.
- 5 Avoid making lumps.
- 6 The Krystal Klear should dissolve in 3 -5 minutes.

## Recommended Trial Rates

 Prepare a 6% Bentonite Solution to perform trials.

Wine Sample (mls)	mls 6% Sol.	Rate
200	0.4	1#/K
200	0.8	2#/K
200	1.2	3#/K
200	1.6	4#/K
200	2	5#/K
200	2.4	6#/K
200	2.8	7#/K

## General Hints

When vigorously mixed so that every particle is wetted, bentonite attains practically its fully hydration within 10 minutes.

Always add bentonite to water — not water to bentonite.

Always add the bentonite to water slowly.