

**Food Grade  
Bentonite**

Revised 06/12/2020

## VOLCLAY® KWK FOOD GRADE

**General  
Description**

Low dust granular sodium bentonite with an average particle size between 20 and 70 mesh.

**Functional  
Use**

Used in the "fining" step of processing wine, juice, cider, and vinegar for the removal of suspended solids. Particularly useful in preventing cloudiness and removing heat-sensitive proteins.

**Purity**

Hydrous aluminum silicate comprised principally of the clay mineral montmorillonite. Volclay KWK Food Grade meets all requirements of the Food Chemical Codex.

**Chemical  
Formula**

Diocahedral smectite, an expanding layer silicate:  
 $(\text{Na,Ca})_{0.33}(\text{Al}_{1.67}\text{Mg}_{0.33})\text{Si}_4\text{O}_{10}(\text{OH})_2 \cdot n\text{H}_2\text{O}$

**Elemental  
Composition**

Typical analysis – moisture free.

SiO <sub>2</sub>	63.02 %
Al <sub>2</sub> O <sub>3</sub>	21.08 %
Fe <sub>2</sub> O <sub>3</sub>	3.25 %
FeO	0.35 %
MgO	2.67 %
Na <sub>2</sub> O	2.57 %
CaO	0.65 %
Trace	0.72 %

**Metals Analysis** Typical analysis- Method: NBN EN 15510 ICP AES  
Results in parts per million (ppm)

As	0.16 ppm
Ba	1.08 ppm
Cd	0.006 ppm
Cu	0.27 ppm
Hg	<0.02 ppm
Ni	0.03 ppm
P	2.99 ppm
Pb	0.52 ppm
Se	0.05 ppm
Ag	<0.005 ppm
Zn	1.2 ppm

**LOI** 5.64 %

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<b>Moisture</b>	Maximum 12% as shipped.
<b>Dry Particle Size</b>	Maximum 1.0% retained on 16 mesh. Maximum 35.0% retained on 20 mesh. Maximum 3.5% passing 70 mesh.
<b>Wet Particle Size</b>	Minimum 94% finer than 200 mesh (74 microns). Minimum 92% finer than 325 mesh (44 microns).
<b>pH</b>	8.0 - 10.5 @ 5% solids.
<b>Free Swell</b>	Minimum 20 mls per 2 grams clay.
<b>Packaging</b>	50 or 100 pound multi-wall paper bags, or bulk.