Ochratoxins are mycotoxins produced by fungi such as *Aspergillus* and *Penicillium*. Due to its toxicity, the Ochratoxin A (OTA) is the most regulated. OTA, considered a carcinogen, is a nephrotoxic substance leading to irreversible kidney damage. Strict regulations on its content in food and alcoholic beverages have been established by the EU for several years and on September 17th, 2017 China will adopt the same limit for Chinese and imported wine: 2µg/L.

Origin of OTA
OTA, produced on grapes affected by *Aspergillus* and/or *Penicillium* are present on grapes skins. The first steps of the winemaking process will strongly impact the OTA contamination level of juice and wine due to skin contact.

OTA in Winemaking
OTA in juice can impact yeast metabolism by inhibiting alcoholic fermentation and promoting volatile acidity production.

Reduce Risk of OTA Contamination in Wine
- Adapt viticulture practices and treatment program to limit the presence of molds and reduce risk of OTA production
- Fruit sorting at harvest
- Limit skin contact: no crushing, no destemming, no cold soaking, gentle press cycle, separate press fractions, press early (at 5-6°Brix) and no extended maceration
- Strong juice clarification after pressing for whites and rosés: use clarification enzyme such as Enartis Zym RS and fining agents
- Rack off lees early

OTA Removal
OTA is stable over time and heat resistant, thermo-vinification can’t reduce the concentration of Ochratoxin A in wine. Activated carbon, pre-activated chitosan or yeast cell wall-based fining agents are the most efficient in removing OTA in juice or wine. Due to a higher surface area, activated carbon shows the best results in removing OTA but may impact the organoleptic profile of wine.
OTA can be adsorbed by yeast cell walls during fermentation or ageing with batonnage. However, it is important to use clean lees to limit any spoilage microorganism contamination, non-OTA contaminated lees, and rack wine off lees after a month maximum to limit the release of OTA in wine during autolysis.

Enartis Solutions
Surli One - Yeast cell walls with high adsorbent effect
Claril QY - Purified yeast cell walls and pre-activated chitosan
Black PF - Activated carbon with specific affinity for OTA

For more information, Please call (707) 838-6312.

ANALYSIS:
*Vinquiry Laboratories* offers Ochratoxin A testing. Sample volume: 50 mL.
This analysis can be added to our Export Panel for China.