II.3.5.18 Treatment of wines using a membrane technology coupled with adsorption on deodorant activated carbon or adsorbent styrene-divinylbenzene beads to reduce volatile phenols

Definition:

Process that consists of reducing the excess content of volatiles phenols in wine using a combination of membrane filtration and treatment of the permeate with deodorant activated carbon or adsorbent styrene–divinylbenzene beads.

Objective:

a. Reduce the content of volatile phenols of:

- Microbial origin (e.g. Brettanomyces spoilage) and/or
- Environmental origin (e.g smoke volatiles from fire) and/or
- Winery origin (e.g tainted barrels or surfaces)

That might constitute organoleptic defects or mask the aromas of the wine.

Prescriptions:

a. Refer to the general file on separative techniques used in the treatment of wine (Chapter 3.0) and the file on the application of membrane separation techniques applied to wine (Chapter 3.01).
b. The objective of the first step of the process is to produce a permeate containing some of the volatile phenols. This can be achieved through a membrane separation technique.
c. The permeate obtained during the first step of the process is treated with a deodorant activated carbon or adsorbent styrene-divinylbenzene beads.
d. The treated permeate is then reincorporated with the retentate.
e. The volume of permeate extracted and treated with the deodorant activated carbon or adsorbent styrene-divinylbenzene beads is dependent on the membrane separation techniques and quantity of volatile phenols to be removed.
f. An oenologist or a qualified technician will be responsible for implementing the treatment.

g. The deodorant activated carbon or adsorbent styrene-divinylbenzene beads and filtration membranes used must comply with the prescriptions contained in the “International Oenological Codex”.

OIV recommendation:

Admitted