II.3.5.18 Treatment of wines using a membrane technology coupled with activated carbon to reduce excess 4-ethylphenol and 4-ethylguaiacol

Definition:

Process that consists of reducing the excess content of 4-ethylphenol and 4-ethylguaiacol in wine using a coupling of technologies combining nanofiltration and treatment with activated carbon deodoriser

Objective:

a) Reduce the content of 4-ethylphenol and 4-ethylguaiacol of microbial origin that constitutes organoleptic defects and masks the aromas of the wine..

Prescription:

a) Refer to the general file on separative techniques used in the treatment of wines (Chapter 3.0) and the file on the application of membrane techniques applied to wines (Chapter 3.01).

b) The objective of the first step of the process is to produce an ultrafiltrate containing some of the volatile phenols. This is achieved through nanofiltration.

c) The ultrafiltrate obtained during the first step of the process is treated continuously on a column of activated carbon with deodorizing properties, then continuously and fully reincorporated into the initial tank of wine to be treated.

d) The volume of ultrafiltrate extracted and treated with the column of activated carbon is dependent on the quantity of 4-ethylphenol and 4-ethylguaiacol to be removed.

e) An oenologist or a qualified technician will be responsible for implementing the treatment.

f) The activated carbon with deodorizing properties and nanofiltration membranes used must comply with the prescriptions contained in the “International Oenological Codex”.

Recommendation of OIV:

Admitted