II.1.18 Treatment by discontinuous high pressure processes

Definition:

Process that consists in the reduction of indigenous organisms in grapes by the use of discontinuous high pressure processes, with pressures higher than 150 MPa (1500 bar).

Objective

a) To reduce the microbial loads of indigenous microorganisms, especially yeasts,

b) To reduce SO2 levels used in winemaking,

c) To accelerate maceration in red winemaking.

Prescriptions

a) The high hydrostatic pressure (HHP) technique relates to the use of pressure levels of higher than 150 MPa (1500 bar) during a discontinuous process.

b) The elimination of yeasts in grapes and musts requires pressure levels of 200-400 MPa.

c) The elimination of bacterial cells needs pressure levels of 500-600 MPa.

d) The treatment time range is 2-10 minutes.

e) If necessary, the increase in temperature may be controlled by supplementary refrigeration.

f) The increase in temperature and the techniques used should not entail any alteration in the appearance, colour, flavour or taste of the wine.

Recommendation of OIV

Admitted