

# Effects of Different Distillation Conditions on Minor Compounds of Olive Pomace Oil

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Degummed, neutralized and bleached olive pomace oil was distilled using a short path distillation unit under three different gauge pressures of 0.02, 0.1 and 0.5 mbar and at elevated temperatures from 160 to 250 °C to determine the distillation conditions of some minor constituents such as squalene, mono-diglyceride and free fatty acid.

Results have showed that the amount of distilled compounds were dependent upon the temperature and pressure. Higher the temperature and vacuum, higher the distilled compounds. Squalene content was reduced from 10613 to 104 ppm after distillation at 0.02 mbar and 250°C. Mono and diglyceride content was removed from the oil at the same distillation conditions from 4.91 to 0.05%. Oleic acid was introduced to the oil up to 9.55% to see the effect of distillation conditions on the removal of FFA. After distillation at 250 °C, 0.02 mbars, 97% of initial acidity was removed and FFA content of residue oil was determined as 0.30%.

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