

# Stability of potato chips fried in vegetable oils with different degree of unsaturation. Effect of ascorbyl palmitate during storage

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Four vegetable oils with different polyunsaturated/saturated fatty acid ratio (P/S): 5.2 for sunflower oil, 3.4 for canola rapeseed oil, 0.4 for a blend of palm olein and canola rapeseed oil (80:20), and 0.3 for palm olein were assayed for stability of crisps fried in these oils during storage at 60°C. The action of ascorbyl palmitate with special attention to its synergistic effect on the natural antioxidants was also tested by addition to the fried potatoes. The evolution of the oxidative stability was measured through peroxide value, quantitation of tocopherols and tocotrienols, and induction time (IT) by means of Rancimat. Oil degradation during frying was very low as both polar compound percentages and natural antioxidant had similar levels to those present in refined oils. Evolution of analytical parameters during storage results indicated that oil unsaturation degree or P/S had a much more importance on stability of the product than had the content and type of natural antioxidant