**Factors affecting the Formation of 3-MCPD/glycidyl esters during Edible Oil Refining**

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Within the last few years significant attention has been paid to the fatty acid esters of 3-monochloropropan-1,2-diol (3-MCPD) and glycidol, two classes of processing contaminants formed during refining of edible oils and fats. Since refined oils are used in a wide range of food products (either as ingredients or as a medium during processing), there is a great interest in understanding the mechanism of 3-MCPD/glycidyl ester formation and developing an effective mitigation strategy. The large variation in the levels of 3-MCPD/glycidyl esters observed amongst oils of different origin (and even within the oils of the same origin) suggests that they are dependent on minor intrinsic compositional changes of oils and/or different processing conditions. Recent studies showed that over the course of oil refining the formation of 3-MCPD/glycidyl esters occurs mainly during the deodorisation step, typically at temperatures above 180 °C. Several pathways of heat-induced formation of 3-MCPD/glycidyl esters have previously been proposed, but the reaction mechanism still remains to be completely elucidated. The objective of the speech is to assess the current knowledge on the factors crucial for the formation of 3-MCPD/glycidyl esters (covering both refining conditions and compositional variation of the crude oils) and to address the major knowledge gaps.