

Quality control of oils as a key element of HACCP systems in the catering industry

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Food safety is a major issue for the consumer who has started to understand the health and economical consequences of food borne disorders. Although each player from the food chain has responsibility, the catering industry represents the last line of defense before food reaches the consumer. The use of fried foods is very common but, unfortunately, undesirable substances such as polar compounds are formed during the frying process and continuous ingestion of these compounds can induce diseases, including e.g. stomach and lung cancer. Several legislations worldwide prohibit the consumption of foodstuffs fried in fats containing more than 25% of polar compounds. The implementation of HACCP systems is mandatory and the control of oils quality is considered to be a Critical Control Point (CCP). The measurement of polar compounds concentration is necessary to assure that the CCP is under control and, being so, the establishment of monitoring procedures that can return data in real time is crucial. The official (ISO) method for determining the polar compounds concentration is expensive and time consuming and cannot be used for real time monitoring of a CCP. Oleo Test® is a colorimetric test having a 5 color scale to determine the interval of polar compounds concentration present in the sample. The results, using samples obtained from restaurants or lab samples from different types of oils, were compared with the ones from ISO method in order to test reliability and reproducibility of Oleo Test®. Over 95% of the results retrieved by the kit (given as color intervals) were in accordance with the ISO results (see figure). It can be clearly concluded that Oleo Test® can be an advantageous replacement for the ISO method in controlling this CCP in the catering industry, thus assuring food safety.