

食品中短鏈氯化石蠟之膳食暴露與風險評估

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大綱

一、前言

二、韓國各類食品中短鏈氯化石蠟之風險評估

三、中國生鮮食品中短鏈氯化石蠟之風險評估

四、中國肉類與肉製品中短鏈氯化石蠟與中鏈氯化石蠟之風險評估

五、結論

摘要

短鏈氯化石蠟(Short-Chain Chlorinated Paraffins, SCCPs)在環境中具持久性、生物累積性(Bioaccumulation)、毒性、及具有遠距離環境遷移等特性，2017 年聯合國環境規劃署(United Nations Environment Programme, UNEP)斯德哥爾摩公約(Stockholm Convention)將其歸類為持久性有機污染物(Persistent Organic Pollutants, POPs)。根據美國國家環境保護局(U.S. Environmental Protection Agency, USEPA)研究顯示人類暴露於 SCCPs 主要途徑為透過攝食，因此本篇研究目的為探討人體透過攝食食品所攝入之 SCCPs 對人體之健康風險評估。在韓國 2020 年與中國 2020 年之研究中利用無觀察危害反應劑量(No Observed Adverse Effect Level, NOAEL)與食品中 SCCPs 之每日估計攝取量(Estimated Daily Intake, EDI)之比值求得其暴露限值(Margin of Exposure, MOE)進行風險評估，結果顯示 MOE 皆大於 1000，表示為可接受之健康風險。另根據中國 2018 年針對各省分之調查中，將 EDI 與加拿大環保署(Canadian EPA)所訂定之 TDI 比較進行風險評估，結果顯示 EDI 小於 TDI 表示為可接受風險。雖此 3 篇文獻皆顯示透過膳食攝入之 SCCPs 風險為可接受，但在工業中仍應限制 SCCPs 之使用量，以降低其在環境與食品中之含量。

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