

Fate of Technical Hexane in the Extraction of Oils and Fats

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Technical hexane is a widely authorized solvent for the extraction and fractionation of edible vegetable oils, fats and other foodstuffs. It is colorless, chemically stable, cost-effective, and recyclable, offering superior overall performance compared to most proposed alternative solvents. Although technical hexane is typically removed during processing, trace residues may remain in final products. In Europe, the maximum allowable residue level is set at 1 mg/kg.

Given the variability in its chemical composition and impurities, as well as reliance on outdated toxicological data, the European Food Safety Authority (EFSA) is currently re-evaluating the safety of technical hexane under modern regulatory standards.

This poster aims to clarify the role of technical hexane in food extraction processes. We present data on its typical chemical composition, including major constituents and impurities, and examine its fate during food processing using analytical evidence. Finally, we briefly explore potential alternative solvents that support safer, more responsible, and sustainable food production.