



部分氫化油 的規管

Regulation of Partially Hydrogenated Oils

2021年 食物內有害物質 (修訂)規例

Harmful Substances in Food (Amendment) Regulation 2021

部分氫化油是工業生產的反式脂肪酸的主要來源(1)

反式脂肪酸

- 增加血液內「壞」膽固醇，同時減少「好」膽固醇的水平，提高患冠心病的風險
- 少量: 天然存在於反芻動物的肉及奶製品等
- 大量: 含油脂的食物在加工過程中產生
 - 經過「部分氫化」過程的食用油脂是工業生產的反式脂肪酸的主要來源

Partially hydrogenated oils (PHOs) is the main source of IP-TFAs (1) ²

Tran fatty acids (TFAs)

- Increase “bad” cholesterol and decrease “good” cholesterol in blood, contributing to an increased risk of coronary heart disease
- Small amount: Naturally present in the meat and dairy products of ruminant animals
- Large amount: Produced during processing of food containing oils/fats
 - Partially hydrogenation of edible oils/fats is the main source of industrially-produced trans fatty acids (IP-TFAs)

部分氫化油是工業生產的反式脂肪酸的主要來源(2)

「部分氫化油」的來源

- 透過「部分氫化」的工業生產過程，控制氫氣壓力、溫度、催化劑等元素，把食用油脂轉變成「部份氫化油/脂」，目的：
 - 製造不同硬度油脂產品，以延長產品的保質期、提升味道穩定性，以及令食品更為耐受反覆加熱
- 常見採用了「部分氫化油」製造的食物：
 - 人造牛油/ 植物起酥油、酥皮、批、餅乾、蛋糕及烘焙食品等

PHOs is the main source³ of IP-TFAs (2)

Sources of PHOs

- In the industrial process of hydrogenation, edible oils/ fats are modified into PHs by controlling various elements (e.g. hydrogen pressure, temperature, catalysts, etc.), its aim:
 - Produce PHO-containing products of different hardness: Have a longer product shelf life, higher flavour stability, and more resistant to repeated heating
- Common PHO-containing food products:
 - Margarines/ Vegetable shortenings, pastries, pies, biscuits, cakes and various kinds of baked food

規管工業生產反式脂肪酸

Regulating IP-TFAs

- **世衛:** 2018年提出 REPLACE 行動方案，目標是到**2023年**在全球食品供應中消除工業生產的反式脂肪酸
- **政府:** 2018年提出本港非傳染病防控計劃中的一項主要工作：禁止「部分氫化油」在食品供應中使用
 - 從源頭保障市民，免除攝入工業生產的反式脂肪酸的食物安全風險



● **WHO:** REPLACE action package launched in 2018, with a goal of eliminating IP-TFAs from the global food supply by **2023**

- **Government:** An Action Plan to Prevent and Control Non-communicable Diseases in Hong Kong announced in 2018; one of the key tasks is to eliminate PHO in the food supply
 - Eliminate the food safety risks associated with the consumption of IP-TFAs by protecting public health at source



《2021年食物內有害
物質(修訂)規例》

Harmful Substances in
Food (Amendment)
Regulation 2021

《2021年食物及藥物
(成分組合及標籤)
(修訂)規例》

Food and Drugs
(Composition and
Labelling) (Amendment)
Regulation 2021

有關部分氫化油的規管

In relation to regulating
PHOs

2021年食物內有害物質 (修訂)規例

第3A條 禁止輸入和出售含有違禁物質的某些食物或油等

- (2) 任何人不得輸入含有部分氫化油的油或脂肪或兩者的混合物以供人食用。
- (3) 任何人不得售賣或為供出售而託付或交付含有部分氫化油的食物 (包括油或脂肪或兩者的混合物) 以供人食用。

Harmful Substances in Food⁶ (Amendment) Regulation 2021

Regulation 3A Prohibition of import and sale of certain food or oil etc. containing prohibited substances

- (2) *A person must not import for human consumption any oil or fat or a mixture of oil and fat containing partially hydrogenated oil.*
- (3) *A person must not sell, or consign or deliver for sale, for human consumption any food (including any oil or fat or a mixture of oil and fat) containing partially hydrogenated oil."*

《2021年食物及藥物(成分組合及標籤)(修訂)規例》

附表3 預先包裝食物的標記及標籤 第2條 配料表

- (4F) 如食物由氫化油組成，或含有氫化油—
- (a) 配料表須載有“氫化油”的提述；或
 - (b) 配料表上所顯示的該油名稱，須以“氫化”一詞修飾。

附表4 獲豁免遵從附表3規定的項目

“含有單一種配料（不包括氫化油）的食物”

Food and Drugs (Composition and Labelling) (Amendment) Regulation 2021

Schedule 3 MARKING AND LABELLING OF PREPACKAGED FOODS Section 2 List of ingredients

- (4F) If a food consists of or contains hydrogenated oil—
- (a) the list of ingredients must contain a reference to “hydrogenated oil”; or
 - (b) the name of the oil, as appearing in the list of ingredients, must be qualified by the word “hydrogenated”.

Schedule 4 ITEMS EXEMPT FROM SCHEDULE 3

“Any food consisting of a single ingredient other than hydrogenated oil”

《2021年食物及藥物(成分組合及標籤)(修訂)規例》釋義

- 預先包裝食物如含有氫化油，須相應作出標示
 - 例子:「氫化」、「氫化油」、「氫化脂肪 / 氫化脂 / 氫化油脂」、「完全氫化油 / 全氫化油」、「完全氫化脂 / 全氫化脂」等
- 由於部分氫化油已列為食品中的違禁物質，產品中的油在配料表中被標示為“氫化”即為完全氫化油

Interpretation of Food and Drugs (Composition and Labelling) (Amendment) Regulation 2021 ⁸

- Food containing hydrogenated oil should be labelled on prepackaged food accordingly
 - E.g. “hydrogenated”, “hydrogenated oil”, “hydrogenated fat”, “fully hydrogenated oil”, “fully hydrogenated fat”, etc..
- As PHO is regarded as a prohibited substance in food, oil in a product labelled "hydrogenated" in the ingredient list means fully hydrogenated oil

《2021年食物內有害物質(修訂)規例》指引

第三章: 部分氫化油

Guidelines on the Harmful Substances in Food (Amendment) Regulation 2021

Chapter 3: PHO



2022年1月修訂

- 第10頁內第3.7段註解3
- 第15-16頁內第17題常見問題

Revised Jan 2022

- Para3.7 footnote 3 on p10
- FAQ 17 on p17

業界的責任

- 在食物標籤上提供準確的資料，例如：
 - 配料表的資料
 - 營養標籤的反式脂肪酸含量
- 向供應商查詢食品的成分詳情
- 妥善保存食品成分詳情的證明文件

Trader's responsibility

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- Provide accurate information on food labels, e.g.
 - Information on the ingredient list
 - TFA content on the nutrition label
- Check with suppliers for the details of ingredients
- Keep proper documentary proofs of ingredient details of products

分析食物的脂肪酸

- 食安中心會參考國際認可的方法分析不同食物基質的脂肪酸的含量，例如：
 - AOAC 996.06
 - AOAC 2012.13/BS EN ISO 16958:2020
- 業界若能證明有其他合適的標準方法，具備類似功能特性，可得出同等結果，亦可以採用有關方法

Analyse fatty acids in food

- CFS makes reference to internationally accepted methods to analyse fatty acids in different food matrices, e.g.
 - AOAC 996.06
 - AOAC 2012.13/BS EN ISO 16958:2020
- Other suitable standardised methods with similar performance characteristics may also be used if they can be proven to deliver equivalent results

估算食物中工業生產的反式脂肪酸含量

- 食安中心會採用**歐盟方法***估算食物中工業生產的反式脂肪酸含量
 - 如超過總脂肪含量的**2%****，或會進一步調查食物中任何氫化油成分的反式脂肪酸來源
- 應用在單一非混合油脂的另一種識別方法：根據其飽和度測試它們的碘值（不適用於混合油或食品）
 - 碘值 ≤ 4 ：完全氫化油
 - 碘值 > 4 ：部分氫化油

***歐盟方法** ([連結](#))

****世衛2%上限** ([連結](#))

Estimation of IP-TFAs in food

- CFS will estimate IP-TFAs in food by the **EU approach***
 - May further investigate the source of TFAs in the food on any hydrogenated oil ingredients if IP-TFAs exceeded **2%** of total fat*
- Additional means for single non-blended fats and oils: Iodine Values (IV) to indicate degree of saturation (not applicable for mixed oils or food products)
 - IV ≤ 4 : Fully hydrogenated oil
 - IV > 4 : PHO

***EU approach** ([hyperlink](#))

****WHO 2% upper limit** ([hyperlink](#))

識別食物中的部分氫化油

- 業界（即進口商、製造商、分銷商和零售商）在獲取或獲供應有關食物後至少24個月內，妥善保存食品成分詳情的證明文件，並在有需要時供有關機構查核
- 例子：
 - 供應商及其出口當局的確認信
 - 產品規格
 - 商業合約
 - 配料表
 - 合資格化驗所發出的報告

Identification of PHO in food

- Trader (i.e. importers, manufacturers, distributors and retailers) are advised to keep proper documentary proofs of ingredient details for at least 24 months after the food was acquired or supplied, and provide them for inspection if deemed necessary
- Examples:
 - Confirmation letters from the suppliers and their exporting authorities
 - Product specifications
 - Business contracts
 - Ingredient lists
 - Reports from competent laboratories

食物製造商參考資料

「取代食物中工業生產反式脂肪的指引」
專頁

https://www.cfs.gov.hk/tc_chi/food_leg/food_leg_Guidance_to_REPLACE_Trans_Fats_in_Food.html

香港特別行政區政府
食物安全中心

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違規標本的檢測結果

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取代食物中工業生產反式脂肪的指引

取代食物中工業生產反式脂肪的指引

有越來越多證據顯示，攝取反式脂肪會增加罹患心血管疾病的風險。此處提供了一套新的指引，旨在鼓勵和協助業界減少食物中的反式脂肪及取代工業生產的反式脂肪，為市民提供較健康的食物。 [取代食物中工業生產反式脂肪的指引](#)。

Materials for food traders

Designated webpage for “**Guidance to Replace Industrially-produced Trans Fats in Food**”

https://www.cfs.gov.hk/english/food_leg/food_leg_Guidance_to_REPLACE_Trans_Fats_in_Food.html

Centre for Food Safety
The Government of the Hong Kong Special Administrative Region

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Guidance to Replace Industrially-produced Trans Fats in Food

Guidance to Replace Industrially-produced Trans Fats in Food

There is growing evidence indicating that trans fats intake is linked to an increased risk of cardiovascular disease. A new set of guidance aims at encouraging and assisting trade to provide healthier food with respect to reducing trans fats and replacing industrially-produced trans fats is available here: [Guidance to Replace Industrially-produced Trans Fats in Food](#).

生效日期

- 修訂規例中規管**部分氫化油**的相關條文將於**二〇二三年十二月一日**生效
- 而訂明在食物中其他有害物質的最高含量的相關條文，則一律於二〇二三年六月一日生效。

Effect Date

- The relevant provisions of the amendment regulations regulating **PHO** will come into operation on **December 1, 2023**.
- The other provisions stipulating the maximum levels of other harmful substances in food will all come into operation on June 1, 2023.



謝謝!

Thank you!

