

## 欧盟：重新评估三种亚铁氰化物作为食品添加剂的安全性

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核心提示：据欧盟食品安全局（EFSA）消息，欧盟食品安全局食品添加剂和营养源专家组（ANS）重新评估了亚铁氰化钠（E 535）（sodium ferrocyanide（E 535）），亚铁氰化钾（E 536）（potassium ferrocyanide（E 536）），和亚铁氰化钙（E 538）（calcium ferrocyanide（E 538））为食品添加剂的安全性。

**食品伙伴网讯** 据欧盟食品安全局（EFSA）消息，欧盟食品安全局食品添加剂和营养源专家组（ANS）重新评估了亚铁氰化钠（E 535）（sodium ferrocyanide（E 535）），亚铁氰化钾（E 536）（potassium ferrocyanide（E 536）），和亚铁氰化钙（E 538）（calcium ferrocyanide（E 538））作为食品添加剂的安全性。

通过评估，欧盟专家小组得出结论认为，亚铁氰化物在目前的授权使用水平中不存在安全问题，建议亚铁氰化钠，亚铁氰化钾，亚铁氰化钙作为食品添加剂每日最大摄入量为 0.03mg/kg bw。

部分原文报道如下：

The Panel on Food Additives and Nutrient Sources added to Food（ANS） provided a scientific opinion re-evaluating the safety of sodium ferrocyanide（E 535）， potassium ferrocyanide（E 536）， and evaluating the safety of calcium

ferrocyanide (E 538) as food additives. The Panel considered that adequate exposure and toxicity data were available. Ferrocyanides (E 535-538) are solely authorised in two food categories as salt substitutes. To assess the dietary exposure to ferrocyanides (E 535-538) from their use as food additives, the exposure was calculated based on regulatory maximum level exposure assessment scenario (maximum permitted level (MPL) ) and the refined exposure assessment scenario. Dietary exposure to ferrocyanides was calculated based on mean and high levels consumption of salts in both the regulatory maximum level and the refined scenario. In the MPL scenario, the exposure to ferrocyanides (E 535-538) from their use as a food additive was up to 0.009 mg/kg body weight (bw) per day in children and adolescents. In the refined estimated exposure scenario, the exposure was up to 0.003 mg/kg bw per day in children and adolescents.

Absorption of ferrocyanides is low and there is no accumulation in human. There is no concern with respect to genotoxicity and carcinogenicity. Reproductive studies were not available, but a no observed adverse effect level (NOAEL) of 1,000 mg sodium ferrocyanide/kg bw per day (highest dose tested) was identified from a prenatal developmental toxicity study. The kidney appeared to be the target organ for ferrocyanides toxicity and 4.4 mg sodium ferrocyanide/kg bw per day was identified as the NOAEL for the renal effects in a chronic (2-year) study in rats. Assuming that the toxicity of this compound is due to the ferrocyanide ion only, the Panel established a group acceptable daily intake (ADI) for sodium, potassium and calcium ferrocyanide of 0.03 mg/kg bw per day expressed as ferrocyanide ion. The Panel concluded that ferrocyanides (E 535-538) are of no safety concern at the current authorised use and use levels