

Overall EFSA conclusion on ACF - Review of EFSA Opinion

In this guide

[In this guide](#)

1. [Introduction - Review of EFSA Opinion](#)
2. [Titanium Dioxide - Background](#)
3. [EFSA Re-Assessment of Titanium Dioxide \(E 171\), 2021](#)
4. [Detailed breakdown on studies considered by EFSA](#)
5. [EOGRT Study - Review of EFSA Opinion](#)
6. [Aberrant Crypt Foci Examination in Satellite F0 Animals \(EOGRT Study\)](#)
7. [Overall EFSA conclusion on ACF - Review of EFSA Opinion](#)
8. [EFSA's Concluding remarks - Review of EFSA Opinion](#)
9. [Literature Search - Review of EFSA Opinion](#)
10. [Studies on TiO₂ Nanoparticles - Review of EFSA Opinion](#)
11. [Further Considerations for Titanium Dioxide - Review of EFSA Opinion](#)
12. [Summary - Review of EFSA Opinion](#)
13. [Questions for the Committee - EFSA Opinion Review](#)
14. [References - Review of EFSA Opinion](#)

This is a paper for discussion.

This does not represent the views of the Committee and should not be cited.

229. The Panel considered that there was uncertainty regarding the extent of the internal exposure to E171 TiO₂ nanoparticles across the range of tested doses. The Panel considered that the effect of E 171 in producing ACF reported by Bettini et al. (2017) was not replicated in later investigations (EOGRT study and Blevins et al., 2019).

230. One source of uncertainty was that it was noted that there were methodological limitations in Blevins et al. A further source of uncertainty is being unclear to what extent animals were exposed to TiO₂ Nanoparticles in both the EOGRt study and Blevins et al. The Panel concluded that E 171 may induce ACF in male rats at a dose of 10 mg/kg bw per day when the test substance is pre-dispersed and stabilised in a liquid medium preventing agglomeration of nanoparticles prior to administration by gavage.