**Much Ado About TiO2**

Intro (0:00 – 3:01 min)

* [Daily Intake Blog: FDA Publishes Stance on Titanium Dioxide in Food](https://www.dailyintakeblog.com/2024/03/fda-publishes-stance-on-titanium-dioxide-in-food)

Background of TiO2 (3:01 – 4:46 min)

* [TiO2 Espionage Story](https://www.bloomberg.com/features/2016-stealing-dupont-white/)

Safety of TiO2 and EU Activity/Ban (4:46 – 13:46 min)

* U.S. Food and Drug Administration (FDA)
	+ [Daily Intake Blog: FDA Publishes Stance on Titanium Dioxide in Food](https://www.dailyintakeblog.com/2024/03/fda-publishes-stance-on-titanium-dioxide-in-food)
* European Chemicals Agency (ECHA)
	+ [CLH report: Proposal for Harmonised Classification and Labelling Based on Regulation (EC) No 1272/2008 (CLP Regulation), Annex VI, Part 2, Substance Name: Titanium dioxide](https://echa.europa.eu/documents/10162/1e95f7c4-13ab-aa54-dccb-d5f224389cd3)
	+ [Commission Delegated Regulation (EU) 2020/217 of 4 October 2019 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures and correcting that Regulation (Text with EEA relevance)Text with EEA relevance](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02020R0217-20200218)
* European Court of Justice (CEJU) cases on inhalation classification
	+ [The General Court annuls the Commission Delegated Regulation of 2019 in so far as it concerns the harmonised classification and labelling of titanium dioxide as a carcinogenic substance by inhalation in certain powder forms (europa.eu)](https://curia.europa.eu/jcms/upload/docs/application/pdf/2022-11/cp220190en.pdf)
	+ [Appeal brought on 8 February 2023 by the French Republic against the judgment of the General Court](https://curia.europa.eu/juris/document/document.jsf?text=&docid=272298&pageIndex=0&doclang=en&mode=req&dir=&occ=first&part=1&cid=173019)
* France
	+ [Order of December 27, 2023 suspending the marketing of foodstuffs containing the additive E 171 (titanium dioxide - TiO2)](https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000048736360)
	+ [Directorate General for Competition, Consumer Affairs and Fraud Prevention (DGCCRF) Titanium dioxide in foodstuffs: everything must disappear](https://www.economie.gouv.fr/dgccrf/dioxyde-de-titane-dans-les-denrees-alimentaires-tout-doit-disparaitre#:~:text=Depuis%20le%201er%20janvier%202020%2C%20les%20denr%C3%A9es%20alimentaires%20contenant%20du,en%202020%20qu%27en%202021.)
	+ [USDA GAIN Report (dated May 8, 2019): France Bans Titanium Dioxide in Food Products by January 2020](https://fas.usda.gov/data/france-france-bans-titanium-dioxide-food-products-january-2020)
	+ [French *Law no. 2018-938 of October 30, 2018 for the balance of commercial relations in the agricultural and food sector and healthy, sustainable and accessible food for all*](https://www.legifrance.gouv.fr/loda/id/JORFTEXT000037547946)
* Opinions from the French Agency for Food, Environmental and Occupational Health & Safety (ANSES)
	+ [Titanium dioxide nanoparticles in food (additive E171): biological effects need to be confirmed](https://www.anses.fr/node/128393)
	+ [Establishment of Chronic Reference Value by inhalation for Titanium Dioxide under nanoform](https://www.anses.fr/system/files/VSR2017SA0162Ra.pdf)
	+ [Food additive E171: ANSES reiterates its recommendations for consumer safety](https://www.anses.fr/node/138800)
	+ [Opinion on a specific health risk assessment guide for nanomaterials in food products](https://www.anses.fr/en/system/files/ERCA2016SA0226EN.pdf)
* EU Ban on TiO2 as a food additive
	+ [USDA GAIN Report (dated March 3, 2022): Titanium Dioxide Banned as a Food Additive in the EU](https://fas.usda.gov/data/european-union-titanium-dioxide-banned-food-additive-eu)
* WHO Statement [JECFA’s risk assessment of titanium dioxide risk released](https://cdn.who.int/media/docs/default-source/food-safety/jecfa/summary-and-conclusions/jecfa-riskassemsent-of-titanium-dioxide-released.pdf?sfvrsn=d43ddb0e_3&download=true) (dated 24 November 2023)

TiO2 Activity at the State Level (13:46 – 16:51 min)

* U.S. Food and Drug Administration (FDA)
	+ [FDA Announcement: Titanium Dioxide as a Color Additive in Foods](https://www.fda.gov/industry/color-additives/titanium-dioxide-color-additive-foods)
	+ [21 C.F.R. Section 73.575 -- Titanium dioxide](https://www.ecfr.gov/current/title-21/chapter-I/subchapter-A/part-73/subpart-A/section-73.575)
	+ [21 C.F.R. Section 178.3297 -- Colorants for polymers](https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-178/subpart-D/section-178.3297)

Dr. Ivan Boyer - Details on TiO2 Data and Risk Assessments (16:51 – 25:50 min)

* Opinions by the European Food Safety Authority (EFSA)
	+ [Re-evaluation of titanium dioxide (E 171) as a food additive](https://www.efsa.europa.eu/en/efsajournal/pub/4545) (Published 14 September 2016)
	+ [Evaluation of four new studies on the potential toxicity of titanium dioxide used as a food additive (E 171)](https://www.efsa.europa.eu/en/efsajournal/pub/5366) (Published 4 July 2018)
	+ [Safety assessment of titanium dioxide (E171) as a food additive](https://www.efsa.europa.eu/en/efsajournal/pub/6585) (Published 6 May 2021)

Conclusion and Upcoming Events (25:50 – 28:36 min)

* [2024 Paper Packaging Seminar (May 14-15, 2024)](https://www.khlaw.com/events/2024-paper-packaging-law-seminar)