

## Memorandum

**Date:** November 27, 2024

**From:** Antonetta Thompson-Wood, Physical Scientist, Environmental Review Team  
Office of Pre-Market Additive Safety  
Office of Food Chemical Safety, Dietary Supplements and Innovation

**To:** Elizabeth Furukawa, Ph.D., Regulatory Review Scientist  
Office of Pre-Market Additive Safety, Division of Food Contact Substances

**Through:** Mariellen Pfeil, Supervisory Biologist, Environmental Review Team  
Office of Pre-Market Additive Safety  
Office of Food Chemical Safety, Dietary Supplements and Innovation

**Subject:** Finding of No Significant Impact (FONSI) for Food Contact Notification (FCN) 2407

**Notifier:** NIHON KOKEN KOHYO Co, LTD.

Attached is the Finding of No Significant Impact (FONSI) for Food Contact Substance Notification (FCN) 2407, which is for the use of Fluorphlogopite-based pearlescent pigments. The FCS is for use as a colorant in food contact polymers.

This FONSI explains how the Food and Drug Administration (FDA) has met the requirements under the National Environmental Policy Act (NEPA) for this FCN.

After this notification becomes effective, copies of this FONSI, and the notifier's environmental assessment (EA) dated September 18, 2024, may be made available to the public. We will post digital transcriptions of the FONSI and the EA on the agency's public website.

Please let us know if there is any change in the identity or use of the food-contact substance.

Antonetta Thompson-wood -S



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Attachment: FONSI

## FINDING OF NO SIGNIFICANT IMPACT

**Proposed Action:** Food Contact Substance Notification (FCN) 2407, submitted by NIHON KOKEN KOGYO, LTD. for the use of Fluorophlogopite-based pearlescent pigments. The FCS is for use at levels up to 5% by weight in polymers in contact with all food types under Conditions of Use A through H, and J, as described in FDA Tables 1 and 2. The FCS is not for use in contact with infant formula and human milk. Such uses were not included as part of the intended use of the substance in the FCN.

The Office of Pre-Market Additive Safety has determined that allowing this notification to become effective will not significantly affect the quality of the human environment and, therefore, an environmental impact statement (EIS) will not be prepared. This finding is based on information submitted by the notifier in an environmental assessment (EA), dated September 18, 2024. The EA was prepared in accordance with 21 CFR 25.40. The EA is incorporated by reference in this Finding of No Significant Impact (FONSI) and is briefly summarized below.

The FCS is expected to be entirely incorporated into finished articles and will remain with the finished food-contact articles throughout the use and disposal. Any waste materials generated in this process, e.g. plant scraps, are expected to be disposed of as part of the finished article manufacturer's overall non-hazardous solid waste in accordance with established `.

Finished food-contact articles containing the FCS will be utilized in patterns corresponding to the population density and will be widely distributed across the country. Disposal, recycling, and combustion rates of food contact articles manufactured with the FCS will correspond with The United States Environmental Protection Agency (US EPA) Advancing Sustainable Materials Management: 2018 Fact Sheet<sup>1</sup>.

Post-consumer disposal of food-contact articles containing the FCS will be via landfill or incineration at municipal waste combustors (MWCs) complying with 40 CFR Parts 258 and 60, respectively. Due to EPA's regulations governing landfills at 40 CFR Part 258, leaching into the environment by food-contact articles manufactured with the FCS is not anticipated. Further, because of the regulations at 40 CFR Part 60, and others, no significant impacts are expected from incineration of the FCS at MWCs. No significant impact on the concentrations of and exposures to any substances in air, water, or soil are anticipated. Thus, the use of the FCS as proposed is not expected to result in significant environmental impacts.

The EA considered the impact of greenhouse gas (GHG) emissions. Based on information provided in a confidential attachment to the EA, the total estimated GHG emissions resulting from the combustion of food-contact articles manufactured with the FCS in this notification is below 25,000 metric tons CO<sub>2</sub> equivalent, the US EPA threshold for mandatory reporting of GHG emissions (40 CFR 98.2). Therefore, no significant environmental impacts are anticipated.

Manufacture of the FCS will consume comparable amounts of energy and resources as plastics containing the FCS are expected to be disposed of according to the same patterns when they are used in place of the currently used dyes, pigments, and other colorants for polymers approved under 21 CFR Sec. 178.3297 ("polymer colorants") and other similar pigments approved by other FCNs. Therefore, no net increase in the use of energy and resources from the use and disposal of food-contact articles

<sup>1</sup> [https://www.epa.gov/sites/production/files/2020-11/documents/2018\\_ff\\_fact\\_sheet.pdf](https://www.epa.gov/sites/production/files/2020-11/documents/2018_ff_fact_sheet.pdf)

manufactured with the FCS is expected. There is also no impact on current recycling programs as the FCS is used at an exceedingly low level in the production of food-contact materials.

No mitigation measures are needed since no significant adverse environmental effects are expected from use and disposal of food-contact articles manufactured with the FCS, nor do we expect significant environmental impacts, which would necessitate alternative actions to those proposed in this FCN. The alternative to not allowing the FCN to become effective would be continued use of materials that the FCS would otherwise replace; therefore, this action would have no significant environmental impact.

As evaluated in the EA, the proposed use of the FCS as described in FCN 2407 is not expected to significantly affect the human environment; therefore, an EIS will not be prepared.

Antonetta Thompson-wood -S



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