

---

## Memorandum

**Date:** May 17, 2021

**To:** Laura Dye, Division of Food Contact Substances (HFS-275)

**Through:** Mariellen Pfeil, Lead Biologist, Environmental Team, Division of Science and Technology (HFS-255)

**From:** Antonetta Thompson-Wood, Physical Scientist, Environmental Team, Division of Science and Technology (HFS-255)

**Subject:** Finding of No Significant Impact (FONSI) for Food Contact Substance Notification (FCN) 2135: 1,4-butanediol-polytetramethylene glycol-dimethyl terephthalate block copolymer (CAS Reg. No. 106465-17-2), reaction products with maleic anhydride

**Notifier:** Mitsubishi Chemical Corporation

Attached is the FONSI for FCN 2135, which is for the use of 1,4-butanediol-polytetramethylene glycol-dimethyl terephthalate block copolymer (CAS Reg. No. 106465-17-2), reaction products with maleic anhydride for use as an adhesive layer and as a food-contact heat seal layer in multilayer food packaging structures. The 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 FCN becomes effective, copies of this FONSI, the notifier's environmental assessment (EA), dated May 7, 2021 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

Attachment: FONSI

## FINDING OF NO SIGNIFICANT IMPACT

Food Contact Substance Notification (FCN) 2135, submitted by Mitsubishi Chemical Corporation for the use of 1,4-butanediol-polytetramethylene glycol-dimethyl terephthalate block copolymer (CAS Reg. No. 106465-17-2), reaction products with maleic anhydride as an adhesive layer and as a food-contact heat seal layer in multilayer food packing structures. The FCS will be used at a maximum thickness of 50 microns in contact with all food types under conditions of use A through H as described in FDA Tables 1 and 2 (<https://www.fda.gov/food/packaging-food-contact-substances-fcs/food-types-conditions-use-food-contact-substances>, accessed 5/17/21).

The FCS is not intended 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 Food 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 May 7, 2021. 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 intended to be used as an adhesive layer and as a food-contact heat seal layer in multilayer food packaging structures. Food-contact articles containing the FCS will be utilized in patterns corresponding to the national 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 to landfills, municipal waste combustors (MWC) complying with 40 CFR Parts 258 and 60, respectively. No significant impact on the concentrations of and exposures to any substances in air, water, or soil are anticipated. 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. Therefore, no significant impacts are expected from incineration of the FCS at MWCs. Thus, the use of the FCS as proposed is not expected to result in significant environmental impacts.

The EA also 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>-e, the US EPA threshold for mandatory reporting of GHG emissions (40 CFR 98.2). Therefore, no significant environmental impacts are anticipated.

No net increase in the use of energy and resources from the use and disposal of food-contact articles manufactured with the FCS is expected. No mitigation measures are needed since no 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.

---

<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)

As evaluated in the EA, the proposed use of the FCS as described in FCN 2135 will not significantly affect the human environment; therefore, an EIS will not be prepared.

Prepared by \_\_\_\_\_ Date: digitally signed 05-18-2021

Antonetta Thompson-Wood  
Physical Scientist, Environmental Team  
Office of Food Additive Safety  
Center for Food Safety and Applied Nutrition  
Food and Drug Administration

Approved by \_\_\_\_\_ Date: digitally signed 05-18-2021

Mariellen Pfeil  
Lead Biologist, Environmental Team  
Office of Food Additive Safety  
Center for Food Safety and Applied Nutrition  
Food and Drug Administration