

Memorandum

Date: April 29, 2022

From: Biologist, Environmental Team, Division of Science and Technology (HFS-255)

To: Sean Fischer, Ph.D., Division of Food Contact Substances (HFS-275)

Subject: Finding of No Significant Impact (FONSI) for Food Contact Substance Notification (FCN) 2216: Ethylene/1-butene copolymer (CAS Reg. No. 25087-34-7)

Notifier: The Dow Chemical Company

Through: Mariellen Pfeil, Lead Biologist, Environmental Team, Office of Food Additive Safety (HFS-255)

Mariellen Pfeil -S

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Date: 2022.04.29 16:35:37 -04'00'

Attached is the FONSI for FCN 2216 which explains how the Food and Drug Administration (FDA) has met the requirements under the National Environmental Policy Act (NEPA) for this FCN. FCN 2216 is for the use of Ethylene/1-butene copolymer (CAS Reg. No. 25087-34-7) as a component of food contact articles. The FCS may contain up to 10 percent polymer units derived from 1-butene and may be used in contact with all foods types under Conditions of Use A through H as described in Tables 1 and 2.¹ The density of the FCS will range from 0.85 to 1.00 gm/cm³, and the melt flow index (190 °C/2.16 kg) of the FCS will be ≤ 24 g/10 minutes. Adjuvant substances permitted for use in olefin copolymers complying with 21 CFR 177.1520(c), item 3.1 may be used in the FCS, provided that the limitations on the use of the adjuvant substances are met. 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.

After this FCN becomes effective, copies of this FONSI and the notifier's environmental assessment dated March 8, 2022, may be made available to the public. We will post digital transcriptions of the FONSI and the environmental assessment 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.

Denis Wafula -S Digitally signed by Denis Wafula -S
Date: 2022.04.29 16:18:54 -04'00'

Denis Wafula

Attachment: Finding of No Significant Impact

¹ <https://www.fda.gov/food/packaging-food-contact-substances-fcs/food-types-conditions-use-food-contact-substances>

FINDING OF NO SIGNIFICANT IMPACT

Proposed Action: Food Contact Substance (FCS) Notification (FCN) 2216, submitted by The Dow Chemical Company for the use of Ethylene/1-butene copolymer (CAS Reg. No. 25087-34-7) as a component of food contact articles. The FCS may contain up to 10 percent polymer units derived from 1-butene and may be used in contact with all foods types under Conditions of Use A through H as described in Tables 1 and 2. The density of the FCS will range from 0.85 to 1.00 gm/cm³, and the melt flow index (190 °C/2.16 kg) of the FCS will be ≤ 24 g/10 minutes. Adjuvant substances permitted for use in olefin copolymers complying with 21 CFR 177.1520(c), item 3.1 may be used in the FCS, provided that the limitations on the use of the adjuvant substances are met. 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 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 March 08, 2022. The EA was prepared in accordance with 21 CFR 25.40. The EA is incorporated by reference in this Finding of No Significant Impact and is briefly summarized below.

Food-contact articles containing the FCS are expected to be disposed to sanitary landfills, incinerated at municipal solid waste (MSW) combustors, or recycled proportionately with national municipal solid waste disposal patterns. It is anticipated that due to EPA's regulations at 40 CFR Part 258, there will be no significant introduction of the FCS or its components into the environment resulting from land disposal of food-contact articles containing the FCS. Incineration of food-contact articles containing the FCS will not significantly alter the emissions from properly operating MSW combustion facilities, and hence will not cause these facilities to threaten a violation of applicable emissions laws and regulations at 40 CFR Part 60 and/or relevant state and local laws. Based upon an analysis using market volume information provided in the confidential attachment to the EA, total annual emissions of greenhouse gases (GHG) resulting from disposal of items containing the FCS, are expected to be below the 25,000 mT GHG reporting threshold described in 40 CFR 98.2. Therefore, no significant impacts are expected from incineration of the FCS at MSW combustion facilities. When recycled, the FCS is not expected to interfere with recycling patterns. Thus, the use of the FCS as proposed is not reasonably expected to result in significant environmental impacts.

Use of the FCS is not expected to result in a net increase in the use of energy and resources, because it is expected to replace, to a certain extent, other substances already in use. Manufacture of the FCS and its fabrication in food-contact articles will consume energy and resources in amounts comparable to the manufacture and use of materials already in use.

No significant environmental impacts are expected from use and disposal of the FCS; therefore, mitigation measures have not been identified. The alternative of not allowing the FCN to become effective would be the continued use of the materials that the subject FCS would otherwise replace; such action would have no significant environmental impact.

The use of the FCS, as described in FCN 2216, as a component of food-contact articles will not significantly affect the quality of the human environment; therefore, an EIS will not be prepared.

Prepared by **Denis Wafula -S** Digitally signed by Denis Wafula -S
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Denis Wafula, Ph.D.
Biologist, Environmental Team
Office of Food Additive Safety
Center for Food Safety and Applied Nutrition
Food and Drug Administration

Approved by **Mariellen Pfeil -S** Digitally signed by Mariellen Pfeil -S
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