Report of FY 2024 Survey of Animal Food Packaging for PFAS

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been used in various consumer, commercial, and industrial products since the 1940s. Due to their ability to resist grease, oil, water, and heat, these chemicals can be found in stain- and water-resistant clothing and carpeting, non-stick cookware, cleaning products, and fire-fighting foams. PFAS do not breakdown easily or quickly and are known to persist in the environment, including in air, water, and soil. There is increasing evidence that these "forever chemicals," some of which have been linked to serious health effects, bioaccumulate in humans and animals due to their potential presence in food and water. Because of these concerns, FDA's Center for Veterinary Medicine (CVM) is gathering information to gain a better understanding of the extent of PFAS contamination in food for animals.

During fiscal year 2024, FDA surveyed a limited number of animal food packaging materials for PFAS, where PFAS may be present from its use in grease-proofing agents used to coat the inside of paper bags and paperboard products (boxes).

In the past, FDA authorized the use of specific PFAS in four main areas of food contact, including: (1) non-stick coatings in cookware, (2) repeat use rubber articles such as gaskets and O-rings that may be used in food processing equipment, (3) processing aids used to manufacture other food contact polymers to help reduce build-up on equipment, and processing conditions, and (4) grease-proofing agents used on food contact paper and paperboard products. The only authorized use for which appreciable levels of PFAS migration may occur comes from the use of grease-proofing agents on food contact paper and paperboard products. In February 2024, the FDA announced the voluntary market phase-out of substances containing PFAS used as grease-proofing agents on paper and paperboard in food packaging in the U.S. market. In January 2025, FDA determined that all remaining authorized uses of PFAS based grease-proofing agents were no longer effective, and set a compliance date of June 30, 2025 to exhaust existing stocks of these products.

FDA CVM directed the collection and analysis of relevant samples to determine if these PFAS, specifically, the short-chain 6:2 fluorotelomer alcohol (6:2 FTOH), were detected in animal food contact paper and paperboard products as grease-proofing agents.

Between June and September 2024, FDA investigators collected a total of 57 samples across the country and sent them to an FDA laboratory for analysis. Of these 57 samples, 7 boxes and 50 bags were collected. The 7-boxes were intended for pet treats while the bags were intended for pet food as well as animal (livestock) food and ingredients.

The samples were analyzed using an "Isotope Dilution DART High Resolution Mass Spectrometry Screening for Fluorotelomeric Alcohols in Hydrolyzed Fibrous Food Contact Papers" reporting out detection of the analyte Hydrolysable 6:2 FTOH. This method's minimum validated detectable concentration is 4160 ng hydrolysable 6:2 FTOH per gram sample.

FDA has completed its examination of the sample results. Of the 57 samples collected, 6:2 FTOH was detected in 2 samples, one cardboard box intended for pet treats and one paper bag with a wax coating intended for kibbled dog food. FDA contacted the animal food manufacturing companies using the packaging material to communicate the findings. FDA used this opportunity to educate the companies on the potential public health risks of PFAS and ongoing efforts to phase-out the use of these substances in food packaging. The companies were also reminded of the approaching compliance date of June 30, 2025 to exhaust existing stock of packaging containing 6:2 FTOH from the U.S. market.

Because this sample collection was conducted before June 2025 and the primary purpose was to collect data on certain PFAS in animal food packaging, no definitive conclusions can be drawn from this limited survey. However, the results show progress in phasing out PFAS in packaging for animal food in the U.S., consistent with the voluntary commitments FDA received from companies to cease their sales of food contact substances containing 6:2 FTOH in the U.S. marketplace within three years of January 2021.