Press Release

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Human stool study challenges common assumption that food & beverage packaging is the source of ingested microplastic.

Plastics Europe is collaborating closely with the scientific community to better understand the possible impacts of microplastics. In 2022, it launched a fully independent, five-year scientific research project, called Brigid, to assess the potential human health risks from ingesting microplastics.

The first piece of research completed as part of Brigid, is a pilot-scale human intervention study investigating potential relationships between three scenarios of plastic use and food consumption and type and quantity of microplastics in human stool. These scenarios considered different components of plastic use and food consumption: food processing; plastic food packaging; and preparation and serving with plastic cutlery.

The study detected microplastics in 95% of stool samples, with an average of 3.3 microplastics per gram (MPs/g stool). The most common polymer types were PE, PET, and PP, and the most common particle shape was fibre (80%). Interestingly, there was no identifiable correlation between the consumption of plastic-packaged food/beverages and the number or type of MPs in stool. However, a new hypothesis emerged indicating a possible positive correlation between the method of food preparation and the presence of microplastics in stool.

Virginia Janssens, Managing Director of Plastics Europe said, *"The finding that packaged food consumption does not influence the amount of microplastics in stool challenges common assumptions. Conversely, the potential link between the level of food processing and microplastic presence highlights the need for further research to better understand the mechanisms behind these observations."*

"Plastics Europe and its members are committed to generating robust scientific research into the presence and risks of microplastic which will allow us to better understand the potential effects of this exposure on the environment and health, and to help develop suitable mitigation measures as needed. We hope this finding will be the first of many useful insights that the Brigid research programme can provide to inform policymakers, our value chain, and other stakeholders."

-More information-

Plastics Europe launched a multimillion-euro, five-year (2022-2026) scientific research project: Brigid. This project aims to assess the potential risks to human health from microplastic exposure through ingestion. Ingestion, along with inhalation, is hypothesised to be the main entrance pathway of microplastics into our bodies.

Brigid stands as a part of the plan which will bring Plastics Europe's member companies toward their Safety, Sustainability, and Circularity goals. Our aim is to answer important questions about the potential effect of microplastics on humans, and, in the process, contribute to the development of evidence-based and effective policy making.

Please find more information on Brigid here.

Brigid is also part of the International Council of Chemical Associations (ICCA) MARII initiative. Please find more information here.

Notes for Editors

Plastics Europe is the pan-European association of plastics manufacturers with offices across Europe. For over 100 years, science and innovation has been the DNA that cuts across our industry. With close to 100 members producing over 90% of all polymers across Europe, we are the catalyst for the industry with a responsibility to openly engage with stakeholders and deliver solutions which are safe, circular and sustainable. We are committed to implementing long-lasting positive change.