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Recyclable Packaging Research

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Researchers Use Switchable Hydrophilicity Solvents To Produce Recyclable Packaging

Researchers in Lithuania and Egypt have discovered how to use N, N-dimethylcyclohexylamine (DMCHA) to break down multilayer flexible packaging (MFP) that pose a threat to the environment. MFP is used in making blister pill packages, candy wrappers, chip packets, and related products, and can contain aluminum, among other toxic substances, which when leaked or incinerated is hazardous to the environment. Although some practices exist to separate the multilayered packaging through recycling technologies, the European Union (EU), for example, limits practices based on energy consumption, carbon dioxide (CO_2) emissions, recycling rate, and sustainability. Combined, these limitations allow for a rate of less than 66 percent of MFPs. This new method, however, allows for recycling rates above 99 percent.

The technology developed separates each layer from one another by using DMCHA and other switchable hydrophilicity solvents (SHS) in an ultrasonic treatment to accelerate the process. Once separation of the layers has occurred, the dissolved plastic materials can be recovered without heating, avoiding CO_2production. For further details on the study, click here.

France Issues New Policy On Plastic Packaging

On August 13, 2018, France's Secretary of State to the Minister for the Ecological and Inclusive Transition, Brune Poirson, announced during an interview a new plan to charge ten percent more for packaged products that do not use recycled plastic in **2019**. France aims to transition 100 percent of its packaging use into recyclable plastic by **2025**. With this goal in mind, the French government will be introducing a number of measures to promote recyclable packaging. Some of which include an increase on taxes for burying trash in landfills and banning substitutable plastic products, among others.

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