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Calyxia microcapsule technology : enabling a future of safer laundry products and cleaner oceans.

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PURPOSE OF THE ABSTRACT

Calyxia is an innovative French SME created in 2015 as a result of a successful partnership between the prestigious ESPCI Paris and Harvard University (USA) on a new microencapsulation technology.

This new technology enabled active ingredients to be protected in a formulation against degradation in extreme temperature conditions, and the delivery of the ingredients at the optimum time and site of action. It soon became apparent that this technology could present massive benefits to many other ingredients and markets, advancing the performance of formulated products, and so, Calyxia was born.

Today, Calyxia works with the world leading manufactures of formulated products in markets including home and fabric care, agriculture, paints and coatings, adhesive and sealants, lubricants and fuels, and advanced materials markets.

Calyxia provides the solution to enable formulated product manufacturers to invent and launch a new generation of disruptive products that are safer and environmentally sustainable, whilst at the same time advancing the performance by decades.

At the International Symposium on Green Chemistry 2019 (ISGC 2019), Calyxia will present their perfectly sealed biodegradable fragrance microcapsule technology for liquid laundry care products, which is one of the key markets for Calyxia.

Today, all major liquid laundry care products contain fragrance microcapsules. They protect the fragrance against evaporation during storage, target the fragrance to the fabric during the wash cycle, and deliver the fragrance throughout the day providing long-lasting freshness to clothes.

However, the problem is that all current microcapsules are made of non-biodegradable materials, which contribute >1000s of tonnes of bio-accumulative microplastics to the oceans every year, destroying the aquatic ecosystem and introducing toxic ingredients to the food chain.

To help solve this problem, the EC is preparing a ban on all non-biodegradable microcapsules in laundry care products from 2022. This creates a new critical pain point for laundry product manufacturers.

How can they eliminate their non-biodegradable microcapsules, whilst at the same time maintaining the expected level of long-lasting freshness of their products?

At the ISGC 2019, Calyxia will present how their perfectly sealed biodegradable fragrance microcapsule technology addresses both of these pain points, by proving the solution to maintain long-lasting freshness with 2 x less fragrance compared to existing technologies, with capsules that comply with the new EU regulation, thus preserving the oceans of microplastics.

This is another example of the high added value of Calyxia's microcapsule technology platform, which enables formulated products to go "beyond Chemistry".

FIGURES

FIGURE 1

FIGURE 2

KEYWORDS

microencapsulation | biodegradable | fragrance | safe

BIBLIOGRAPHY