

Issue: THE DUTCH IMPLEMENTATION OF THE EU THE SINGLE-USE PLASTIC DIRECTIVE 2019/904 (SUPD)

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At Kimberly-Clark, we are passionate about protecting the environment and making it easier for consumers to buy sustainable essential products. We know that consumers are becoming more environmentally conscious, but we also know that they need essential, affordable and convenient hygiene solutions. Consumers tell us that hygiene products, such as baby wipes and washlets, form essential components of their daily routine. Nonetheless, they also recognise the importance of sustainability. As such, we have ambitious plans to eliminate plastic from our baby wipes while our flushable wipes remain biodegradable, made from 100% natural fibres and contain 0% plastic.

Kimberly-Clark supports the objectives of the SUPD and the leadership role the EU has assumed in tackling plastic waste in marine and other environments. The SUPD has potential to catalyse Europe's technological and ecological leadership in materials science. It can spark innovation into sustainable materials - which are required to curtail waste, substitute polymers made from fossil fuels and minimize resource use - and achieve the transition to circular business models. For the opportunities to materialize it will however be of outmost importance that EU countries are implementing the directive in a way that is in line with the intent of the directive and that will spur further corporate investments in sustainable innovations.

The intent of the SUPD legislation

Article 1 of the SUPD is setting out the objectives of the legislation: To “*prevent and reduce the impact of certain plastic products on the environment, in particular the aquatic environment, and on human health*”, and to using these limitations to spur the transition to a circular economy with innovative and sustainable business models, products and materials.

Hence, one key condition for the implementation will be to consider a materials behaviour if it would be incorrectly disposed of and ending up as litter in the environment, including in waterways. Products which biodegradable properties¹ has been validated by third-party Notified Bodies should in this sense seen as meeting the intent of the legislation.

While biodegradability should be one of the key criteria it shouldn't not be enough to decide on the inclusion or exclusion in the Dutch legislation. Any raw material or feedstock should also be sustainably sourced in order to truly meet the objectives of the legislation.

One group of biopolymers that meets these criteria and that could support the transit to a low-carbon and circular economy are biopolymers produced through biosynthesis and we hence believe that these should be considered as natural polymers. One example of such a biopolymer is Polyhydroxyalkanoates (PHA).

¹ Evaluating biodegradability in the marine environment, water and compost (home & industrial).

The properties of PHA

PHA is bio-based. It is a natural polymer that is created by certain species of micro-organisms on their own and accumulates as energy storage reserves in their cells. The substance is harvested from cells after the fermentation process without the use of chemicals and can be processed using existing meltspinning techniques to create fibres, films, injection moulding and other polymeric applications. By exposing these micro-organisms to the same conditions, which they encounter in nature, their natural metabolic processes result in production and storage of PHA. There is no objective difference between PHA fermented “in nature” and in an industrial setting. The role of the laboratory is merely to provide scale for the production process². PHA is fully bioequivalent.

PHA is recyclable. It can be recycled within a well-organized recycling system without generating microplastics,

PHA is fully biodegradable, breaking down residue-free into its original components: Biomass, water and carbon. Biodegradability has been confirmed by a number of Notified Bodies across Europe, and according to European Standards. PHA-based biopolymers developed by Kimberly-Clark’s supplier biodegrade within 12 weeks in the marine environment³.

PHA is sustainably sourced: We recognise that one concern when it comes to bioplastic is the question of indirect land use change and land competition. In this case, the PHA production is based on waste cooking oil, which would otherwise be disposed of. Hence, there would be no direct impact on land use. That makes PHA fully circular and minimises use of virgin natural resources.

It is precisely in this spirit that Kimberly-Clark has committed to research into polyhydroxyalkanoate (PHA) as an alternative to plastic for use in our applications, such as wet wipes. The unique properties of PHA are entirely aligned with the intent of the SUPD: To Prevent and reduce any impact on the environment, in particular on the aquatic environment and human health. In the case of unintended leakage, PHA would ensure that litter is not only managed, but its generation prevented altogether.

For these reasons, we see PHA not as a substitute, but a real alternative to petroleum-based plastics. The introduction of PHA for different applications would move the Netherlands closer to the ambitions about a climate-neutral and circular economy. Hence, PHA, together with other products/materials produced through a process of biosynthesis, should be exempt from the Dutch Single-Use plastics products legislation.

ABOUT KIMBERLY-CLARK

Kimberly-Clark and its trusted brands are an indispensable part of life for people in more than 175 countries. Fueled by ingenuity, creativity, and an understanding of people's most essential needs, we create products that help individuals experience more of what's important to them. Our global portfolio of brands, including Huggies, Kleenex, Scott, Kotex, Cottonelle, Poise, Depend, Andrex, Pull-Ups, GoodNites, Intimus, Neve, Plenitud, Viva and WypAll, hold the No. 1 or No. 2 share position in 80 countries. We use sustainable practices that support a healthy planet, build stronger communities, and ensure our business thrives for decades to come.

² See, for example, the open letter signed by 18 researchers and sent to DG ENV on 18 Sept. 2019.

³ The test result was validated by TÜV Austria.