

## EXPLORING SUSTAINABILITY CLAIMS: BIODEGRADABLE FRAGRANCES

## Sustainability concerns are a hot topic and, as consumers grow more concerned, new claims arise in the market panorama. So, what should be taken into account to create a biodegradable fragrance?

It is undeniable that during the last few years there has been a growing tendency to talk about sustainability in most industry articles/divulgations around the world. The term "sustainability" is a trending topic in all sectors and this is not only imposed by the industry itself and the consumers, but also by the authorities, who follow the market demand. A clear example of this can be appreciated in Europe with the appearance of the European Green Deal, since one of its main goals is to boost innovation for safe and sustainable chemicals.

There is not a specific definition for sustainability and this general term can comprise numerous concepts. Nevertheless, from Kao Chemicals we consider that one of the most important aspects to be aware of when talking about sustainability is the emission of persistent or bio-accumulative substances to the environment, which is not legislated as such in countless market sectors, such as cosmetics. In this regard, the biodegradation of the substances we use to produce our fragrances is essential.

Several biodegradability tests have been developed to determine whether a substance is potentially easily biodegradable or not, and this leads to the deduction that biodegradation can differ considerably between one substance to another. There are "Readily biodegradable substances", which are those that are rapidly and completely biodegraded in a short period of time, "Inherent biodegradable substances", which do not achieve rapid biodegradation but are biodegradable in a long time, and "Not readily biodegradable substances" that, as their name indicates, are those which do not degrade when they are emitted into the environment and are long-lasting substances. the initiative to regulate this type of ingredients. This is the case of the detergents regulation in Europe, which requires the rapid biodegradation of all surfactants used in a detergent formula, or even more recently, the EU Ecolabel, that goes beyond and extends the restriction, not only forbidding non-biodegradable surfactants, but also limiting the utilization of any other nonbiodegradable organic substance.

**FRAGRANCES** 

At Kao Chemicals we consider that biodegradation is an extremely important concept to prevent the persistence or bioaccumulation of our substances in the environment. For this reason, and although it is not implemented at a legislative and mandatory level, we are committed to offering fully biodegradable products and our fragrances for personal care are a clear example of Kao's vision towards sustainability. Currently, there is not an exact definition of the requirements to be met by a fragrance to be considered biodegradable. However, our experts consider a fragrance biodegradable when all its components are biodegradable, whether they are ready or inherent. To achieve this, we have developed an exhaustive database, integrated into our computer systems, which contemplates the biodegradation of the entire perfumery palette. Using this new system, our R&D Department is able to create fully biodegradable fragrances.

Kao Chemicals is always taking a further step into the biodegradation pathway as it can be appreciated in our IN-COSMETICS booth S80 with our two latest collections of sustainable formats and fragrances made with only readily biodegradable ingredients, achieving the highest possible level of biodegradation.

