Creative Accords Using 'Dihydro Isojasmonate'

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Introduction

Our company is well known as the producer of a wide range of aroma chemicals. One of these aroma chemicals is Dihydro Isojasmonate, a product of growing importance in the market. We will review this chemical from a historic perspective, then see why it is a unique product with its own odour signature and performance properties. Next, we will find that Dihydro Isojasmonate is the product of choice for soap and detergent perfumers and why it is useful in most product applications from fine perfumes to air fresheners, candles and functional products. We will conclude this article with a series of perfume demonstration formulas to review some of the useful effects of this chemical.

Historical Perspective

In perfumery, there are five major white floral families generally recognized as a base for most floral creative work. They are: rose oil, jasmin oil, tuberose oil, ylang-ylang oil, and muguet. Of the five, Muguet exists only as a concept. No commercial oil is available, although some interesting work has been done with headspace analysis. Jasmin oil is the king of this group and has inspired many former and present classic fragrances. Jasmin oil is an extract of the white flowers of two main plant types: "Jasminum Grandiflorum" or Spanish Jasmin and "Jasminum Officinale" or White Jasmin. Jasmin is grown in many parts of the world and is labour intensive. Currently Italy, Morocco, Tunisia, Egypt and now India, with its "Sambac" type, are important growing areas. Jasmin oil is expensive. It takes approximately 800 kilos of petals or 10,000 flowers, to make 1 kilo of concrete jasmin. The crude concrete needs alcoholic washing to obtain the final Jasmin absolute.

The point of this explanation is that jasmin oil is expensive and mostly limited to fine fragrance perfumery. For most cosmetic and functional product applications, perfumers use bases that are groups of well-balanced fine chemicals and naturals. Commonly used chemicals in jasmin might be Benzyl Acetate, Hexyl Cinnamic Aldehyde, Linalool and Indole. With just these materials, a solid core jasmin could be made. Modern perfumery, however, is very complex and many factors have to be considered when selecting chemicals for a perfume.

Dihydro Isojasmonate was created by us when conducting research into methyl jasmonate, one of the chemicals naturally occurring in jasmin oil. The background of Dihydro Isojasmonate, as a perfumery fine chemical, makes for an interesting development story. Dihydro Isojasmonate was first introduced to the perfumery world in the 1970s as AC 1300. We still receive requests under this early name. There are many examples of where Dihydro Isojasmonate is used but the first major fragrance introduction was in "Magie Noire" by Lancôme in 1978. "Magie Noire" is a floral fruity semi-oriental chypre type. Currently, Dihydro Isojasmonate is used in many soap and cosmetic products as well as fabric softeners and detergent granules. "Finesse" by Helene Curtis is one of the well-known shampoo adaptations of Dihydro Isojasmonate.

Odour Performance

To consider the importance of Dihydro Isojasmonate, one must look to the overall stability chart for Dihydro Isojasmonate. Here one will notice a good stability profile from low pH to the higher pH range. Of particular importance are fabric softeners, bar soap, and detergent granules. These products can be very difficult for perfumers. Dihydro Isojasmonate however is also a very stable chemical in these applications. Secondly, Dihydro Isojasmonate has excellent diffusion from water. This is of particular interest for that sparkle in the air on freshly washed laundry. Further, when this is combined with good substantivity, or fragrance retention, on hair, skin and cloth, then one can see why perfumers have an interest in using Dihydro Isojasmonate.

Through our recent increase in production capacity to a level of several hundreds of tons, Dihydro Isojasmonate is truly a tool for the creative perfumer to consider. From an environmental and human safety viewpoint, Dihydro Isojasmonate complies with all the current demands and has a good overall safety signature; it is, for example, readily biodegradable. The combination of all these positive attributes