

## Sustainable Exclusive Synthesis – Yes We Can

- **Saltigo at Chemspec Europe, May 24 to 25, 2023, Messe Basel, Switzerland, Stand C50**
- **The path to climate-neutral production and a net-zero value chain**

**Leverkusen, May 12, 2023** – Saltigo GmbH, a subsidiary of specialty chemicals company LANXESS, is placing special emphasis on its activities, successes and goals in relation to sustainable production and supply chains at this year's Chemspec Europe. The 36th international trade fair for fine and specialty chemicals will be held in Basel, Switzerland, on May 24 to 25, 2023.

“Important issues and at the same time challenges that we and our customers are actively addressing are digital transformation, the comprehensive climate protection along the entire value chain as well as reliable supply chains geared to sustainability. Realizing all this with the necessary cost discipline makes the task even more challenging. But there is no way around it,” explains Dr. Wilfried Jaworek, Head of Production Strategy at Saltigo. This applies not only to exclusive synthesis, which is the core business of the Leverkusen-based company, but also to the broad range of fine and specialty chemicals that Saltigo produces and sells.

### **Ambitious Group goals**

“With its forward-looking climate protection and sustainability activities, our company is making important contributions to achieving the corporate group's ambitious goals,” emphasizes Dr. Michael Zobel, Chief Executive Officer of Saltigo. LANXESS aims to become climate-neutral with respect to direct emissions by 2040. Together with suppliers and customers, the goal is to cut scope 3 emissions by 40 percent by 2030 compared to 2015. By 2050, the target is to have a fully climate-neutral upstream and downstream supply chain (net zero value chain). Ultimately LANXESS strives to make its entire product portfolio climate-neutral likewise by 2050.

### **Digitalization for more sustainability**

Saltigo uses the “Product Carbon Footprint Engine” developed by its parent company, LANXESS, to calculate the CO<sub>2</sub> footprint of products in an automated

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process. This software accesses existing data from the ERP (Enterprise Resource Planning) system, combines this with climate-relevant material information and calculates the emissions generated during production based on the “cradle-to-gate” approach (from raw material extraction to the factory gate). This includes greenhouse gas emissions during production, product-specific emissions related to the respective raw materials, energy, operating equipment and means of transport used as well as emissions during waste disposal. TÜV Rheinland has certified this tool in accordance with the ISO 14067 standard, which concerns the quantification of the carbon footprint of products. This data is also an important basis for life cycle assessments.

The information obtained in this way can help Saltigo’s customers to achieve their own sustainability goals and to clearly document this. Saltigo is already able to record the emissions from in-house production and purchased energy (scopes 1 and 2 according to the Greenhouse Gas Protocol) very precisely. “We are constantly expanding and improving our data base for scope 3 emissions, i.e. relating to raw materials, waste disposal and external logistics, to allow us to reliably determine the CO<sub>2</sub> footprint for all of our products,” says Dr. André Grossmann, Head of Key Account Management at Saltigo. This is a complex task for Saltigo simply because raw material sources, the product portfolio and production volumes are frequently subject to seasonal and market-related fluctuations. However, only around 20 substances, many of them inorganic raw materials, are responsible for approximately 60 percent of all emissions. “Just by using chlorine, sodium hydroxide and hydrogen that have been produced with renewable energy, we will bring about a decisive improvement in the carbon footprint from May 2023 onwards,” declares Grossmann.

### **Process-integrated sustainability**

The success of Saltigo is based essentially on its decades of expertise in developing and optimizing synthesis processes. At the same time, innovative production methods offer considerable potential for more sustainability, which is increasingly the focus of attention for customers, too. “Alongside the use of renewable energy and raw materials, this is another decisive factor in making our production activities more sustainable,” explains Dr. Guido Giffels, Head of New Business Development & Internal Business at Saltigo. Modern reaction types, such as metal-catalyzed metathesis – which was recognized with the Nobel Prize in 2005 – excel in several ways: they take place highly selective and under mild

conditions, often allow short, simple synthesis pathways to complex products and provide them with a high level of purity. This makes the reaction efficient in its use of raw materials and energy as well as easier to treat and isolate products. Additionally fewer by-products are generated which may need to be disposed of, thus reducing waste.

A current application example of olefin metathesis is the production of what are known as agricultural pheromones. These are highly efficient, selective and non-toxic compounds for protecting plants, which hinder the reproduction of pests. Thanks to efficient synthesis methods such as metathesis, they can now be manufactured and used cost-effectively on a large scale. Thus on behalf of its customers, Saltigo produces (E,Z)-7,9-Dodecadien-1-ol-acetate, a specific pheromone secreted by the female of the European grapevine moth (*Lobesia botrana*), in multi-ton-scale. If sufficient quantities of this ester are released in a fruit-growing or wine-growing environment, the males of the species will no longer be able to find the females, and they will therefore be unable to mate. Thanks to this “confusion technique,” the grapevine moth can be kept below the damage threshold. This environmentally friendly method is subsidized by the government in several German states.

Metathesis reactions are also successfully used for producing active pharmaceutical ingredients, aromatic substances and scents, and fatty acid derivatives from renewable raw materials. The targeted development of new and modified catalysts continually opens up new possibilities in this context.

Detailed information about the comprehensive range of services offered by Saltigo can be found online at <https://saltigo.com>.

LANXESS provides information about the Group's climate protection activities online at <https://lanxess.com/en/Sustainability/Material-Topics/Climate-Protection-and-Energy-Efficiency>.

## Images



Carbon footprint and life cycle assessments help Saltigo’s customers to make the right decisions on their path to climate neutrality and greater environmental compatibility.

Photo: LANXESS



Over five years of laboratory and operational experience with metathesis reactions help experts from Saltigo when it comes to exclusive synthesis. This ranges from the handling of catalysts, some of which are sensitive, and ethylene flows, and the targeted control of equilibrium reactions through to gentle isolation of products – all on a 12-cubic-meter scale.

Photo: LANXESS

## News Release



Saltigo GmbH is one of the leading providers in the field of custom synthesis. The company, which is part of the specialty chemicals company LANXESS, belongs to the Consumer Protection segment, which recorded sales of EUR 2,366 billion in fiscal year 2022. Saltigo, which has its corporate headquarters in Leverkusen and production facilities in Leverkusen and Dormagen, employs around 1,300 people worldwide.

### **Forward-Looking Statements**

This news release contains certain forward-looking statements based on the current assumptions and forecasts by the management of LANXESS AG. Various known and unknown risks, uncertainties, and other factors could cause the actual results, financial position, development, or performance of the company to differ materially from the assessments presented here. The company accepts no obligation to update such forward-looking statements or to adjust them in line with future events or developments.

### **Information for editors:**

All Saltigo news releases and their accompanying photos can be found at <http://press.lanxess.com/>. Detailed information on the company is available at <http://www.saltigo.com>. You can find information concerning LANXESS chemistry in our WebMagazine at <http://webmagazine.lanxess.com>.