

### **Fluorination at Saltigo**

Saltigo is one of the world's leading custom manufacturing companies. To uphold our fine reputation, we are constantly on the lookout for new solutions and ways of helping our customers attain their goals. Saltigo is known for its ability to complete new projects – pretty much whatever the size – right on time and with sparing use of resources. Our engineers adopt a swift and efficient approach to adapting existing plants and planning new ones with the support of in-house and locally-based partners.





## Increasing demand for fluorination chemistry

The dramatic effect of the introduction of fluorine into on the biological activity of molecules from both the pharmaceutical and the agrochemical area is well known. Due to the high strength and polarity of the carbon-fluorine bond, incorporation of fluorine into organic molecules is often used to modify its behavior in biological systems.

The ever-growing share of small-molecule APIs and agrochemical AIs containing fluorine atoms has led to a rise in demand for fluorination chemistry on technical scale.

While many sophisticated methods for selective introduction of fluorine atoms have been developed, on a larger technical scale halogen exchange reactions dominate, either with anhydrous hydrogen fluoride or with alkali fluorides in high-boiling polar-aprotic solvents using a phase-transfer catalyst.

#### Fluorination capabilities

As a major custom manufacturer for agrochemicals and pharmaceutical intermediates, Saltigo has decades of experience in manufacturing specialty fluorine-containing compounds.

While being able to handle most fluorination reagents on technical scale, Saltigo has dedicated assets for

- halogen exchange reactions using anhydrous hydrogen fluoride, with the additional advantage of backwards integration into LANXESS' as Europe's largest producer of hydrogen fluoride,
- halex reaction utilizing alkali fluorides, esp. potassium fluoride, with Saltigo's proprietary high-performance catalyst system,

both on a multi-100 t/a scale.

### Aromatic halogen exchange with potassium fluoride

Halogen exchange with anhydrous hydrogen fluoride

#### Highly automated

In our highly automated kilo labs, operated 24/7, we are able to support process development and scale-up of these and other fluorination reactions, under high pressure and temperatures, if required (HF up to 35bar).

For your specialty fluorination needs from kilograms to 100s of tons please contact Saltigo under

www.saltigo.com





# High-performance network of infrastructure, production and environmental management

Saltigo, which specializes in the exclusive synthesis of chemical active ingredients & intermediates, has a state-of-the art production base at its integrated facilities in Leverkusen and Dormagen, a broad technology portfolio, impressive process development expertise and many years of industry experience in agrochemistry, pharmaceuticals and the fine chemicals sector.

## saltigo

#### customized competence

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