



Custom Manufacturing: Key Technologies

Tailored chemistry. Scalable solutions.

Saltigo offers a comprehensive technology portfolio for demanding custom manufacturing projects... from lab development to full scale production.

We support complex multi-step syntheses, including organometallic transformations, reductions and alkylations — all handled in state-of-the-art facilities with robust safety systems and integrated downstream processing. Operating from our sites in Leverkusen and Dormagen in Germany, **Saltigo** combines outstanding infrastructure, a strong safety culture, and decades of experience to deliver sustainable, high-performance solutions for many industries.



Chlorination

Flow Chemistry

Fluorination

Saltigo's production environment is equipped to meet a wide range of technical and regulatory requirements, enabling customized and scalable manufacturing solutions.

- Multiple reaction lines for complex multi-step syntheses
- Stirred tank reactors from 6 to 16 m³, made of Hastelloy, glass-lined steel and stainless steel
- Diverse distillation units, including a divided-wall column for energy-efficient separations
- Chlorine supply infrastructure for safe and continuous operations
- Solid handling via Powder Transfer Systems (PTS) for contained dosing of solid raw materials
- Post-processing equipment, such as pressure nutsches, for solid-liquid separation
- Loading and unloading of liquids via pipe bridges, containers or small packaging units
- Drum filling station for safe and efficient product shipment



With more than 25 years of experience, **Saltigo** is a trusted partner in flow chemistry, offering innovative solutions for complex chemical transformations. We've developed 20+ continuous processes, with several scaled to mini-plant or pilot production.

Flow chemistry offers key advantages over batch production:

- Process intensification with smaller reactor volumes
- Superior thermal control for safer operation under extreme conditions
- Higher selectivity and yields through precise reaction control
- Sustainability via reduced waste and solvent use
- Consistent quality and scalability with steady-state production

Our experience ranges from cryogenic reactions and high-pressure processes to continuous nitration and carbohydrate pyrolysis, all supported by cutting-edge automation and in-house engineering.



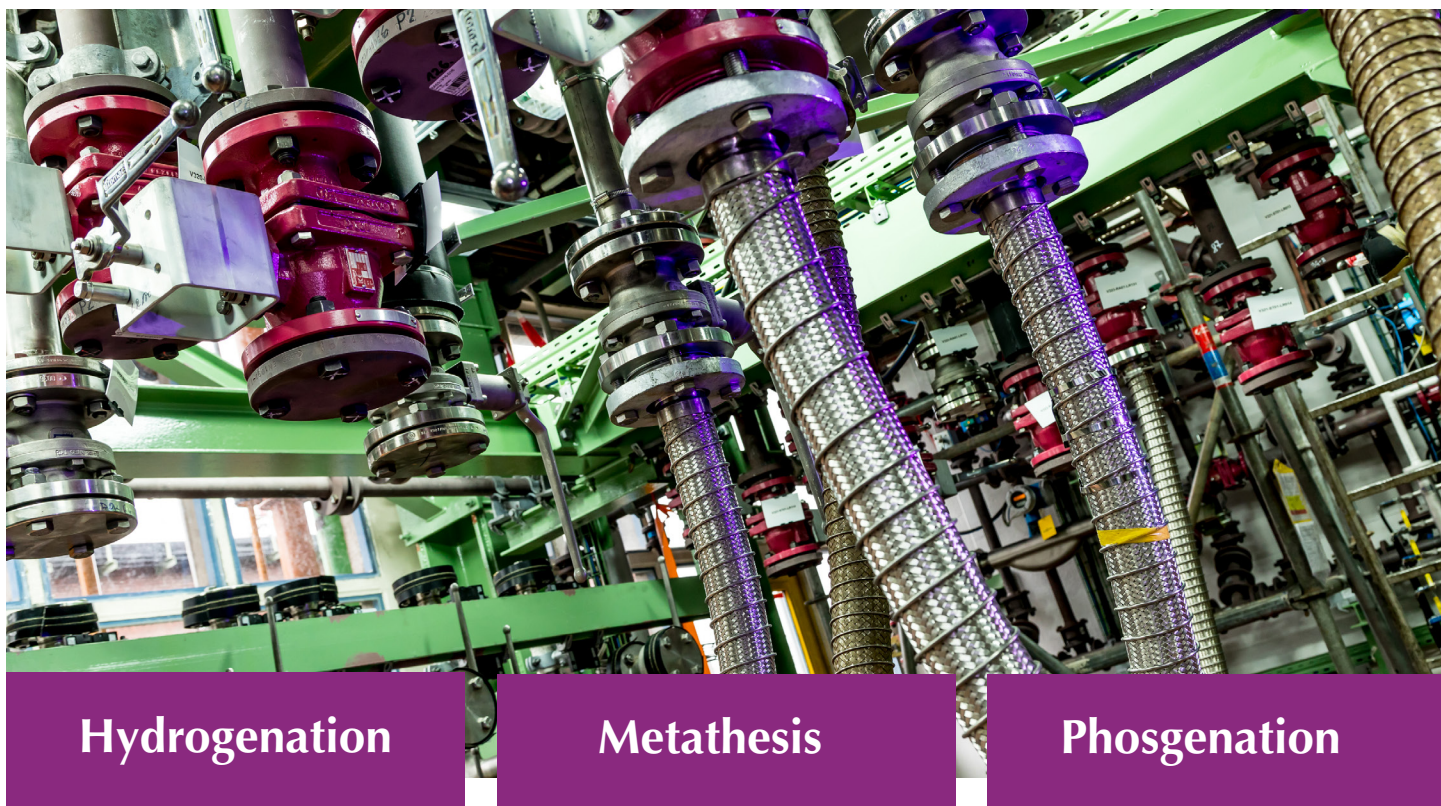
As a major custom manufacturer for agrochemicals and pharmaceutical intermediates, **Saltigo** has decades of experience in manufacturing specialty fluorine-containing compounds.

While being able to handle most fluorination reagents on a 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
- Halox reaction utilizing alkali fluorides (esp. potassium fluoride) with **Saltigo's** proprietary high-performance catalyst system...

..both on a multi-100 t/a scale.





Hydrogenation

Metathesis

Phosgenation

At **Saltigo**, we offer cutting-edge facilities and decades of know-how to support the development and scale-up of high-pressure hydrogenation processes.

Our state-of-the-art lab enables safe, flexible process development up to kilo scale:

- Mini-plants with autoclaves up to 5 liters
- 24h / 5-day operations, in both batch and continuous mode
- Lab-scale campaigns with outputs up to 10 kg
- Pressure range: up to 300 bar
- Temperature capability: up to 300 °C

Saltigo's hydrogenation units ensure efficient, scalable and sustainable production.

- Batch production lines up to 320°C and 200 bar H₂
- Continuous hybrid line up to 230°C and 200 bar H₂
- Integrated distillation units for downstream processing
- Safe, scalable and sustainable production, including the use of green hydrogen

Saltigo combines cutting-edge metathesis technology with advanced downstream capabilities to deliver highly efficient, highly selective solutions ideal for complex chemical syntheses.

While Grubbs systems offer cost advantages, Schrock catalysts provide superior selectivity and product quality. With expertise in both catalysts, we tailor each process to meet your needs, for optimal performance.

Our technology ensures precise reaction control and safe ethylene off-gas handling, supported by oxygen monitoring and an innovative charge system for catalysts that is scalable up to 12 m³.

We also enable bio-based production via metathesis of renewable feedstocks, supporting sustainable synthesis of specialty chemicals, such as pheromones.

- Decades of experience in liquid/solution phase phosgenations
- Full project support, from lab development to large-scale production
- Strong focus on process safety and reliability

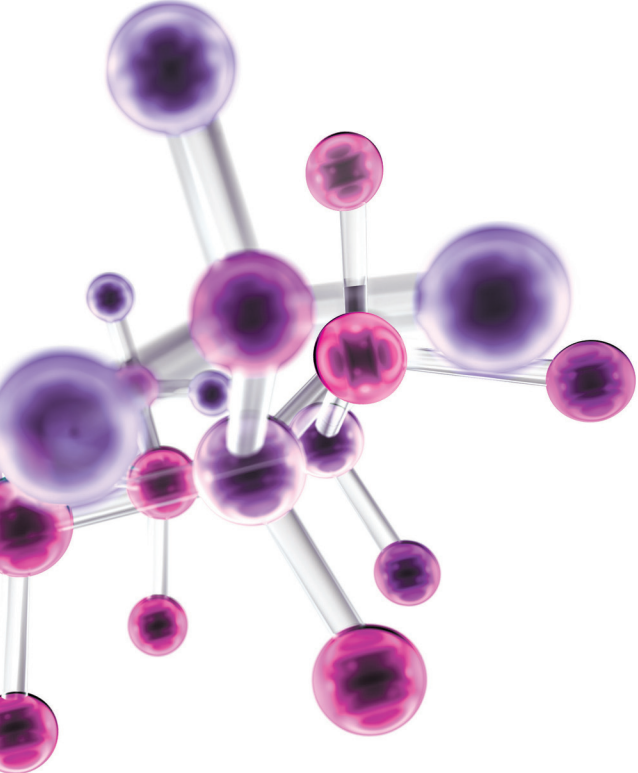
Capabilities & Infrastructure

- Dedicated phosgenation lab (0.5–10 L reactors) Seamless scale-up to industrial units (at our Dormagen site)
- In-house phosgene production for reliable supply
- Key intermediates include: chloroformates, acid chlorides, ureas, isocyanates and carbonates

Integrated Downstream Options

- Alkylation, reductions & organometallic transformations, and many more
- Safe Product Handling
 - Dedicated filling stations
 - Closed transfer systems
 - On-site storage facilities





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customized competence