

Custom Synthesis

Reliable, Flexible and Competitive

About ISOCHEM

ISOCHEM manufactures products and offers services that meet the most recent and stringent regulatory standards of the Pharmaceutical industry. ISOCHEM implements complex reactions and technologies, while mastering the risk to produce the highest quality products in full compliance with EHS and International Standards of Quality.



A FINE CHEMICAL COMPANY

ISOCHEM serves a broad range of customers in many application fields, from leading global companies to virtual and emerging organizations.

ISOCHEM implements almost all the chemical reactions classically used in multi-step synthesis and offers you renowned differentiating know-how:

- Safe implementation of hazardous reaction such as phosgenation, nitration, cryogenic reaction and high pressure hydrogenation.
- Attractive building blocks such as activated aminoacids (N-CarboxyAnhydride) in peptide chemistry.

ISOCHEM products play an important role in the production of novel healthcare, functional and specialty products.





ISOCHEM OPERATES 5 PRODUCTION SITES, ALL CERTIFIED ISO 9001.

This offers a total reaction capacity of 450 m³ including 3 cGMP production sites with 270 m³ of reaction capacity.

ISOCHEM runs a large range of glass lined and stainless steel vessels, from 100L to 25,000L, coupled with equipments for liquid and solid purification and separation. This offers the most attractive multipurpose industrial capacity for your products.

Manufacturing facilities Gennevilliers Vert-Le-Petit Pont-de-Claix Kazincbarcika Pithiviers Pithiviers Pithiviers Kazincbarcika

QUALITY

Appropriate Quality:

ISOCHEM's quality system based on a long experience working with the guidelines of various markets is designed to meet the exact quality standard required by your market.

Global Quality System:

ISOCHEM established a global Quality System which complies with internal policies as well as with national and international standards (e.g. ISO) and regulations (e.g. cGMP).

Our certifications:

	GENNEVILLIERS	PITHIVIERS	VERT-LE-PETIT	PONT DE CLAIX	KAZINCBARCIKA
ISO 9001: 2008	√	√	√	√	√
cGMP (Q7)	\checkmark	√	√		
Inspected by the FD	A √	√			
FDA listed	\checkmark	√	√		

cGMP standards

With a long tradition of manufacturing active pharmaceutical ingredients and regulatory intermediates, ISOCHEM is able to manage your project according to the best practices.

In addition, ISOCHEM brings all necessary regulatory support such as registration of new substances through IND or DMF filing in CTD format. More than 40 DMF were filed by ISOCHEM in different countries.



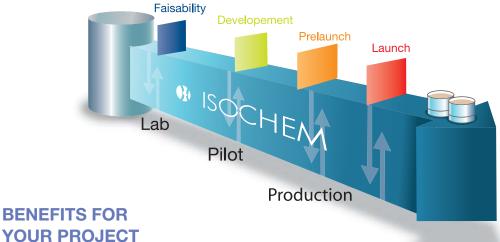




timeline.

Custom Synthesis

ISOCHEM offers GMP and non GMP industrial exclusive custom synthesis and provides tailor made services that range from development to production, including route selection, process and analytical development as well as process optimization.



Flexible Solutions: ISOCHEM's highly skilled teams interact closely with the pilot units and multipurpose facilities. The proven project management system combined with a broad technology platform allow to design custom tailored programs adapted to your

Appropriate Quality: ISOCHEM's quality policy based on a long experience working with the guidelines of various markets ensures the exact quality level required by your product.

Reduced Time to Market: ISOCHEM's knowledge and management tools ensure the optimized timing for your project.

Continuous Cost Savings: ISOCHEM delivers substantial improvements in manufacturing and creates additional value by reducing capital and operating costs.

Security of Supply Chain: ISOCHEM optimizes and secures sourcing of raw materials, based on total transparency with customers.



Project management

PROJECT EVALUATION

- identification:
 - of critical points
 - of key technologies and required skills
- regulation diagnostic
- economic evaluation

COMPREHENSIVE SERVICE OFFER

- prerequisites hypotheses
- technical program
- regulation support (DMF, REACH)
- project management
- transparency communication
- detailed planning

KICK OFF MEETING

validation of input data and objective

RELIABILITY AND TRANSPARENCY

- project team leader
- regular reporting
- project reviews
- creative process
- analytic support
- tailor-made documentation
- timely supplies (product and reports)
- confidentiality
- controlled lead times and costs

RELIABLE PRODUCTION

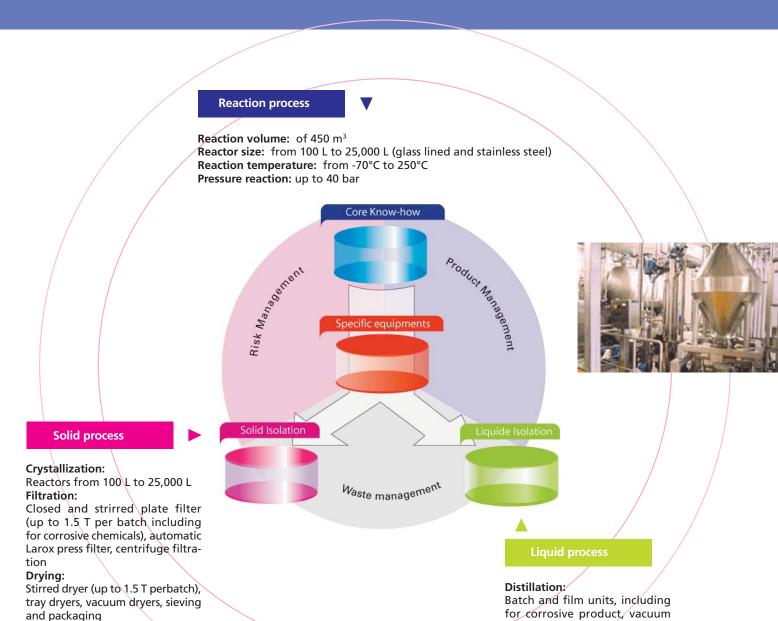
- FDA and customer audit satisfaction
- best EHS standards

Our technologies

- Hydrazines and downstream heterocyclic chemistry
- Phosgene chemistry
- Organometallic chemistry including organo-lithium reagents (BuLi, LDA, LiHMDS,...)
- Chlorination (POCl₃, PCl₃, SOCl₂, SO₂Cl₂, ...)
- Reductions with boron and aluminium hydrides and in situ generated B₂H₆
- Catalytic hydrogenation up to 40 bar
- Carbon disulfide chemistry
- Lewis catalyst (BCl₃, TiCl₄, BF₃, AlCl₃...)
- Amino acid N-Carboxyanhydride synthesis and polymerization (NCA, UNCA)

down to 1 mbar and temperature up to 200°C

- Liquid phase peptide synthesis
- Chiral chemistry





 $(*) \ Britest \ is \ a \ global \ leader \ of fering \ a \ platform \ of \ methodologies \ and \ tools \ for \ the \ development \ of \ innovative \ process.$

SUSTAINABLE DEVELOPMENT

Sustainable development is a corner stone of ISOCHEM's policy. ISOCHEM long term success relies on respect of core values like the protection of social environment and the safety and health of employees and neighbours in a strict compliance with local and international regulations.

ISOCHEM is a member of the Responsible Care program. ISOCHEM management defines objectives for continuous improvement and progress.

ISOCHEM's best practices for Safety, Health and Environment are stated in a Policy Act on Safety Health and Environment.





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Les Créations Philippe Toumire - Photos: Isochem September 2012 - Custom