

ISLECHEM

Contract R&D

IsleChem, LLC, was founded as a contract research and development (R&D) company to serve customers who, on a strictly confidential basis, wished to capitalize on the experience and expertise of the IsleChem professional staff. Our clients “own” the technology that is developed while under contract with IsleChem.

There are a number of aspects to the contract R&D services offered by IsleChem. These include:

- Literature review
- Selection of the best chemistry route
- Optimization of the chemistry
- Development of analytical methodology
- Scale-up of the process
- Preparation of sample quantities
- Regulatory services
- Development of Intellectual Property

Literature Review

IsleChem possesses a Technical Information Center that provides scientists with access to the latest information on synthetic chemistry routes, patent information and analytical methods, as well as health, safety and environmental information on new materials, products and by-products.

Selection of Chemistry Route

This stage combines the results of literature information, scientific judgment and experimentation to define the chemistry route that offers the best chance for product or process innovation.

Chemistry Optimization

A critical piece in the overall R&D process, this phase provides detailed information on yields, reaction conditions and overall process economics. Experimental design is often incorporated at this stage to determine which process variables offer the best opportunity for cost and performance improvement.

Analytical Methodology

This step, normally done concurrent with chemistry optimization, provides the tools necessary for defining product purity as well as the by-products, which play a key role in the overall economics. IsleChem’s outstanding array of analytical equipment



and expertise contribute significantly to the overall definition of analytical methodology.

Process Scale-up

IsleChem has complete pilot facilities to allow scale up of processes developed by IsleChem or from a Client's Technical Package. The equipment includes glass-lined, stainless steel, monel, and Hastelloy reactors, glass and nickel distillation systems, solids separation and handling equipment, and associated auxiliary equipment. All of the systems are capable of computer aided data acquisition and, when necessary, operate 24 hours per day, seven days per week. Reactor capacity ranges from 1 gallon to 200 gallons.

Sample Quantities

IsleChem has the internal resources to provide sample quantities of product for toxicological studies, further client studies and customer evaluation. Typically, this involves several kilograms, but larger quantities are certainly within IsleChem's capability.

Regulatory Services

Our in-house regulatory compliance and health, environmental and safety staff is well versed in the preparation of Material Safety Data Sheets (MSDS) and Pre-Manufacturing Notification (PMN). We also have complete knowledge of all regulatory compliance regulations for both R&D and pre-commercial situations.

Intellectual Property

IsleChem staff participate fully with clients in the preparation of invention disclosures and patents for the protection of intellectual property rights.

IsleChem personnel have the expertise, equipment and experience to perform the full range of contract R&D. Please call us today!



In addition to Contract R&D, IsleChem offers:

Analytical Services	Contract Manufacturing
Process Scale Up	Technical Service
Materials Testing	Environmental Services
Analysis of Hazardous Building Materials	

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