

TECHNOLOGY TOOLBOX:

SPECIALTY, AGRO & F&F MARKETS

INTEGRATED PARTNER FOR STARTING
MATERIALS AND ADVANCED
INTERMEDIATES DEVELOPMENT
AND MANUFACTURING

USA
CALIFORNIA

UQUIFA Group, a Contract Manufacturing Organisation (CMO) with a legacy spanning over 90 years, is a trusted leader in API development and manufacturing. Our comprehensive services support projects from discovery, proof-of-concept through to commercial manufacturing.

Our global footprint includes headquarters in Europe, with manufacturing sites and R&D centers strategically located across Europe. We also maintain sales offices in Europe and East and West coast of the United States of America, as well as a purchasing office in India, ensuring a broad and responsive customer service network.

Our state-of-the-art manufacturing infrastructure comprises 2 pilot plants, 1 large-scale cGMP API manufacturing plants, and a dedicated GMP KSM/intermediates site. With the capability to produce 40-45 unique products each month, we demonstrate our commitment to meeting diverse industry needs.

Our R&D operations are supported by 3 research and development centers, equipped with strong scientific expertise and proprietary technologies, allowing us to deliver enhanced value to our clients. Serving a global customer base, we work with clients in over 70 countries and have forged long-term relationships with our top 10 customers. Our clientele includes leading pharmaceutical innovators, as well as small- to mid-sized biotech companies.

Our dedicated team, consisting of 190 employees in Spain and 240 in Hungary, is at the heart of our operations, driving our continuous pursuit of excellence and innovation.

SPAIN

**BARCELONA
SANT CELONI**

HUNGARY

BUDAPEST

INDIA

HYDERABAD



OUR 3 P's



PEOPLE

Are the **backbone of the organization**. Every task, idea and ounce of effort contributes to our collective progress **leading us to success**. We genuinely value people's contributions, **expertise, and enthusiasm**.



PRODUCTS

Are the **lifeblood of our business** and the result of our collective efforts. We work hard for consistently delivering a **high-quality product** reinforcing the **UQUFA Group** as a reliable and trustworthy supplier.



PLANTS

Our number one priority is to ensure a safe working environment. With the right infrastructure, machinery, and technology in place, we can optimize workflow and maximize productivity **allowing us to meet customer demands effectively** and delivering a high-quality product on time. Investing back in our Plants through **CAPEX programs** is a consistent aspiration for us.



SAFETY



QUALITY



ENVIRONMENT



FLEXIBILITY

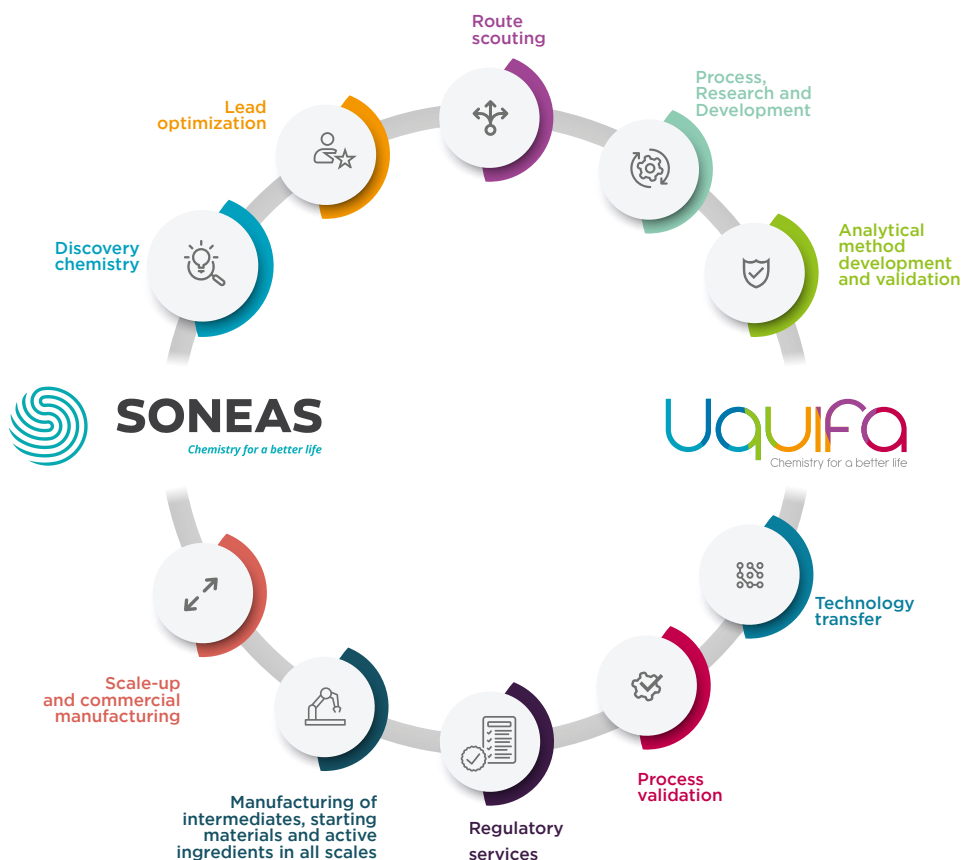


INNOVATION



PASSION

One-stop shop for your starting material and advanced intermediates development & manufacturing needs from Europe



Chemistry Capabilities

- Alkylation
(for example with diethyl sulfate)
- Alkylations, *N*-alkylations and *O*-alkylations
- Amidations
(pivaloyl & tosyl chloride, chloroformates, CDI, DCC)
- Amidations
(for example FDPP, EDC/HOBt-NH, EDC/HOBt)
- Boron Organic compounds
(Organo boronic acids and esters)
- Carbonylation with CO
- Chiral Chemistry using chiral agents
- Cross coupling reactions C-C
(Heck, Suzuki reactions)
- Cross coupling reactions C-N
(Buchwald-Hartwig reaction)
- Cryogenic reactions
(-80°C to -70°C)
- Cyanations/Thiocyanations
- Cyclopentadiene chemistry
- Cyclopropanation
- Diazotation
(for example Sandmeyer)
- Diels - Alder reactions
- Flow Chemistry
 - Nitration
 - Hydrogenation
 - Organolithium chemistry
 - Oxidation (for example O₂)
 - Cryogenic reaction



- Friedel-Crafts reactions
- Halogen chemistry
 - Fluorination (for example DAST, XtalFluor)
 - Acyl Chloride formation (for example SOCl₂)
 - Bromination with Bromine
- Heterocyclic ring formation with pyrazine, triazine, thiazole, thiazepine
- High Temperature reactions (150°C to 250°C)
- Hydrazine reactions
- Hydrogenation (catalytic, high pressure)
- Hydroxyethylation/propylation with ethylene & propylene oxide
- Isomerization
- Metathesis reactions (with Mo, W, Ru catalysts)
- Optical resolutions
- Organo peroxide chemistry
- Organometallic reagents (Grignard, Organolithium reactions)
- Phosphorylation (for example POCl₃)
- Protection/Deprotection of N or O (for example BOC, Triflate)
- Reductions by Metal hydrides (for example with NaBH₄, Vitride)
- Salt formation (for example with HClm succinate, fumarate, maleate)
- Triphosgene chemistry



Quality Assurance

UQUIFA Group is committed to maintaining the highest quality standards across its global manufacturing sites, with robust Quality Management Systems in place to ensure regulatory compliance, risk mitigation, and process efficiency.

UQUIFA Group's sites are recognized through a range of international certifications, reflecting its commitment to quality, sustainability, and operational excellence. The site in Spain holds certifications from leading global authorities and standards organizations, including ISO 14001 and EcoVadis Gold, while the Hungary site operates in alignment with ISO 9001 across multiple facilities.

These certifications reflect UQUIFA Group's commitment to maintaining the highest quality regulations and standards across its global operations.

Across all sites, UQUIFA Group operates under internationally recognized standards, including ISO certifications and sustainability benchmarks, reflecting its dedication to quality, environmental responsibility, and responsible business practices.

The Group's Quality Management System is built on harmonized processes that ensure consistency and reliability across locations. Core elements include comprehensive document management, structured change control, risk assessment, and corrective and preventive action (CAPA) systems. These processes are embedded into daily operations, enabling strong process control, transparency, and continuous improvement.

UQUIFA Group applies a flexible, multi-level quality approach tailored to product application and development stage, ensuring that specific customer and industry requirements are consistently met. This is complemented by rigorous training programs, robust deviation and non-conformance management, and adaptable cleaning and production protocols designed to support a wide range of manufacturing needs.

Collectively, UQUIFA Group's sites in Spain, Hungary, reflect a shared commitment to excellence in quality management, compliance, and continuous improvement across the specialty chemicals manufacturing industry.



At UQUIFA Group site in Spain, the Quality Management Systems is designed to meet any stringent regulatory requirements when manufacturing key raw materials, advanced intermediates, or aroma chemicals and functional fragrance ingredients. The system focuses on maintaining uniform, high-quality standards in API production through comprehensive processes such as document management, change control, Corrective and Preventive Actions (CAPA) management, and risk assessments. As part of UQUIFA Group's digitalization strategy, the site in Spain is transitioning to an electronic Quality Management System (eQMS), fully compliant with FDA 21 CFR Part 11 and EU cGMP Annex 11 standards, to enhance compliance, improve process efficiency, and foster a strong quality culture.

At UQUIFA Group's Hungary site, all manufacturing processes follow ISO 9001 standard and align with our quality management strategy. Five in-house quality levels are applied based on the product's intended use and development stage, from key raw materials, through advanced intermediates to aroma chemicals and functional fragrance ingredients. Equipment cleaning follows multilevel procedures tailored to each project. The UQUIFA Group's Hungarian site is a high-quality industrial manufacturing facility (GMP-capable if required), and its Quality Management System ensures strict control over documentation, manufacturing, materials, labs, training, change control, Out of Specification (OOS) management, Corrective and Preventive Actions (CAPA), and deviations.

Collectively, UQUIFA Group's sites in Spain, Hungary, reflect a shared commitment to excellence in quality management, compliance, and continuous improvement across the specialty chemicals industry.



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Quality Control - Analytical Support

The global Quality Control (QC) team is dedicated to thoroughly analysing all incoming materials used in production, including intermediate products, while conducting continuous testing of manufactured products to maintain the highest standards.





A key element of UQUIFA Group's quality control approach is the use of in-process methods, which are critical in ensuring product integrity throughout the manufacturing process. The primary goal of the QC team is to guarantee that all products meet established regulatory requirements. This is achieved by subjecting the products to rigorous analytical testing, ensuring that each one adheres to applicable quality standards and meets the requirements of regulatory compliance documentation (IFRA, REACH, TSCA where applicable)

UQUIFA Group offers comprehensive QC services covering the full spectrum of analytical activities, from compendial method verification and qualification to the development and validation of new analytical methods, through to routine quality control testing, all performed in compliance with the highest industry specifications and international quality standards. UQUIFA Group's QC teams employ a broad range of advanced analytical techniques to safeguard the integrity of raw materials, intermediates, and final products, supporting the manufacturing of the manufacturing of aroma chemicals and functional fragrance ingredients.

UQUIFA Group's fully qualified analytical laboratories adhere to international standards and are committed to maintaining the highest quality through meticulous testing procedures. These laboratories support production through in-process testing, intermediate testing, and final product release testing, while also playing a vital role in the evaluation and characterization of raw materials, intermediates, and finished products to ensure product integrity.

In addition, UQUIFA Group conducts shelf-life and stability evaluation and degradation studies ensuring the long-term reliability and quality of its products. The QC function also provides extensive analytical support for regulatory filings, including analytical method development, method validation, and reference standard qualification.

In line with UQUIFA Group's commitment to growth, all sites continue to invest in additional analytical capabilities to support its expanding synthetic capacity.

Collectively, the QC operations across UQUIFA Group' sites in Spain and Hungary are unified by a shared commitment to product integrity, regulatory compliance, and continuous improvement. Together, they ensure the highest standards of quality control throughout the production process, delivering products that meet the stringent demands of the specialty chemicals industry.



UQUIFA Group offers a comprehensive range of analytical capabilities, covering a wide spectrum of competencies essential for ensuring product quality and regulatory compliance. By utilizing advanced analytical techniques, we provide thorough testing and support for various stages of the manufacturing process. Our expertise includes:

- **Compendial Testing** (EP, USP)
- **Physicochemical Properties** analysis (KF, PSD, DSC, LOD, IR, pH, optical rotation, melting point, UV, IR)
- **Identity and Purity** determination
- **Trace impurity control and impurity management**
- **Residual Solvents** determination
- **Elemental Impurities Analysis**
- **Low-trace Contaminant Analysis & Control**

We also provide a wide array of services to support synthetic projects, including:

- Synthesis and certification of reference standards
- Analytical method development and validation
- Trace Impurity Control
- Shelf-life and Stability Evaluation (stress and forced degradation tests, accelerated, intermediate, and long-term conditions)
- Optimization of crystallization conditions and physical form
- Physical form characterization
- Regulatory support to carry out the commercialization of the product in the country that the customer needs.

These capabilities ensure that UQUIFA Group consistently delivers reliable, high-quality analytical solutions to meet the regulatory and developmental needs of our clients.

- Automatic Karl Fisher titrators
- Automatic potentiometric titrators
- Climatic Chambers (in accordance with ICH requirements for stability studies)
- Combined pH and Conductometer
- DSC, Differential scanning calorimeter
- TGA, TGA-DSC thermogravimetric analysis
- FT-IR, ATR-FT-IR, UV-VIS spectrophotometer, APHA colour determination
- Melting point meter
- Microwave digestion oven for residue on ignition (ROI)/ sulphated ash determination
- NMR Spectrometer (Bruker 500 MHz Ultrashield)
- Particle size distribution (PSD) determination
- Polarimeter
- Fully qualified cGMP analytical laboratory with Eudralex Vol4 Annex 11., CFR part 11 complying computerised systems
- GC (gas chromatograph) with FID, Head Space autosampler, MS and ECD detector
- HPLC/UHPLC with PDA, DAD, RID, CAD and MS detectors (single quadrupole and triplequadrupole), UHPLC
- ICP-OES for trace elemental impurity determination according to ICH Q3D
- Refractometer
- Powder XRD
- Vacuum dryer and moisture analyser for loss on drying (LOD) determination,
- Microscope
- Digital Rotational Viscometer DV2T

Business Model

At UQUIFA Group, we recognize the need for flexible and client-centric delivery models to ensure that every project is tailored to meet specific requirements efficiently. Our flexible business models are designed to provide a wide range of options, allowing clients to choose the most suitable engagement model for their unique needs, while maintaining strong collaboration and transparency.

FLEXIBLE DELIVERY MODELS

We offer various models that give clients the freedom to select the engagement framework that best aligns with their project scope, budget, and timelines.

Our clients have direct access to our technical teams, ensuring that they remain involved throughout the development and delivery process. Regular updates, followed by telephone conferences and detailed development reports, form the cornerstone of our communication. This level of transparency ensures that clients are always informed about progress, challenges, and solutions, fostering a partnership based on trust and shared goals.





AVAILABLE BUSINESS MODELS

Our clients can choose from the following models based on their preferred level of engagement, financial structure, and operational flexibility:

- **Price/kg:** This model allows clients to pay based on the weight of the product delivered, which is ideal for projects with clearly defined physical outputs.
- **Full-Time Equivalent (FTE):** Clients can opt for this model to hire dedicated resources for their projects. This approach provides them with dedicated team members who work full-time on their project, ensuring consistent focus and support.
- **Fee-for-Service/Fixed Fee (FFS):** In this model, the client agrees to a fixed fee for a specific service or project deliverable. It is ideal for projects with well-defined outcomes and scope, providing cost certainty and minimizing risk.
- **Time and Materials (T&M):** For projects where the scope is evolving or difficult to define upfront, the T&M model offers flexibility. Clients pay based on the time and materials used, giving them the ability to adjust project scope as needed without the constraints of a fixed fee.
- **Long-Term Supply Agreement:** For clients looking for a reliable, ongoing partnership, the long-term supply agreement offers a stable pricing structure and consistent service over a set period. This model is perfect for businesses looking for sustained support and delivery over time.

Each of these models provides clients with the opportunity to balance risk, cost, and control according to their unique needs.

CAPITAL INVESTMENTS

In addition to the flexible business models, UQUIFA Group is open to collaborating with clients through direct investments to ensure successful project delivery. We recognize that some projects may require significant capital expenditures, and UQUIFA Group is willing to invest alongside our clients to keep the project in-house, leveraging our infrastructure, expertise, and resources.



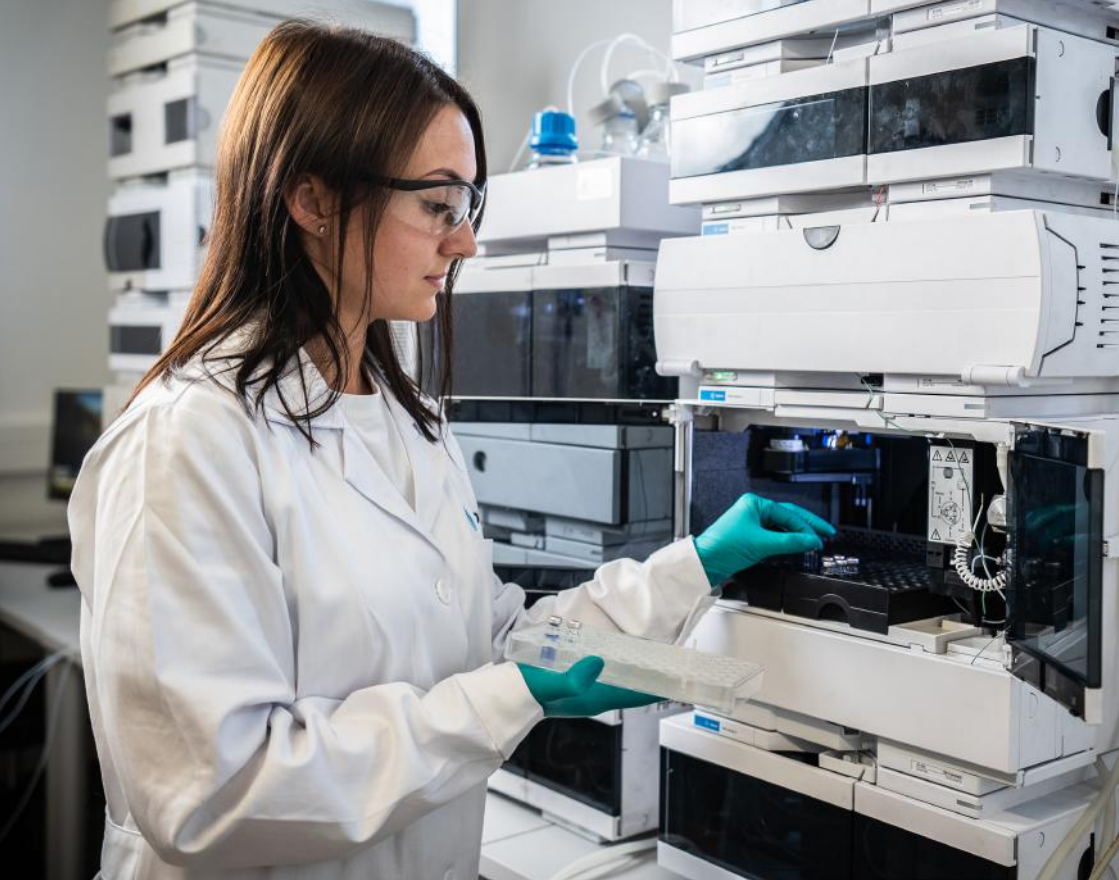
From Discovery to Development: Your Trusted Chemical Support Partner

UQUIFA Group member, SONEAS Chemicals Ltd., specializes in early-phase development, offering comprehensive end-to-end solutions in development with unmatched flexibility and exceptional turnaround times. Our team of highly skilled chemists, holding PhDs and MScs, is dedicated to delivering innovative and efficient solutions tailored to meet your project needs.

DISCOVERY SERVICES

Our discovery chemistry team offers extensive services, including:

- **Early-Stage Development:** Support for hit-to-lead and lead optimization activities, including rapid analogue synthesis, feasibility assessment, and process design for scalable routes.
- **Route Scouting:** Identification and evaluation of alternative synthetic pathways, focusing on efficiency, cost, scalability, and robustness for downstream development.
- **Asymmetric Synthesis:** Expertise in asymmetric transformations, including the use of carbohydrate-based molecules and natural product analogues.
- **Organometallic Chemistry:** Proficiency in metathesis and other complex transformations for economical compound production.
- **Building Blocks and Reference Compounds:** Synthesis of high-purity building blocks, scaffold analogs, and reference compounds.
- **Specialized Chemistries:** Expertise in heterocyclic chemistry, natural product synthesis, impurities & metabolite synthesis, route scouting, and both early and late-stage process optimization (PRO).

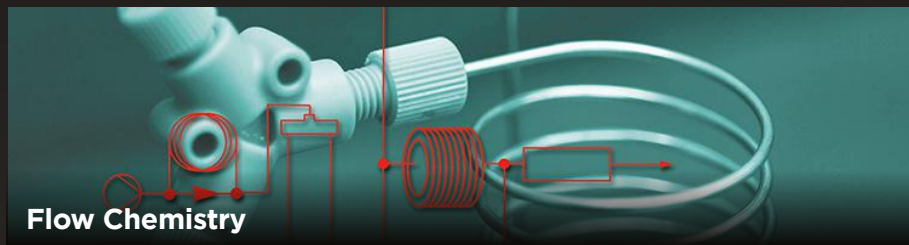


ANALYTICAL SUPPORT

Our high-quality chemistry services are complemented by robust analytical support, ensuring the integrity and purity of synthesized compounds:

- **NMR Spectroscopy:** Equipped with a 500 MHz Bruker NMR for detailed structural analysis, including ^1H , ^{13}C , ^{19}F , ^{31}P , ^{11}B , and ^{15}N nuclei.
- **LCMS, HPLC, and UPLC:** Advanced chromatographic techniques with PDA and CAD detection for precise purity assessments.
- **GC-FID and GCMS:** Comprehensive support for GC-compatible molecule analysis.
- **Chiral Method Development:** Specialized methods for both HPLC and GC to ensure the highest purity of enantiomers.
- **Full Characterization Tools:** Including FTIR, UV-VIS spectroscopy, polarimetry, titrations, DSC, and melting point analysis.

PROPRIETARY EXPERTISE



Ethylene and Propylene Oxide Chemistry Capabilities

Hydroxyethylation and hydroxypropylation are versatile technologies applicable to numerous synthetic transformations. Therefore, hydroxyethylation and hydroxypropylation are routinely encountered for example in aroma ingredient synthesis.

UQUIFA Group member, SONEAS Chemicals Ltd., has vast experience in the syntheses of various materials. Our development team has a wide range of laboratory scale hydroxyethylation and hydroxypropylation available for process development, optimization and scale-up purposes. For subsequent scale-up we have extensive large-scale hydroxyethylation and hydroxypropylation capacity.

Reactor Capacity	Material of construction
3700 L	Stainless steel
6300 L	Glass line
3000 L	Glass line

Supporting equipment

- Ethylene/Propylene oxide treatment system



Hydrogenation

Catalytic hydrogenation is a versatile technology applicable to numerous synthetic transformations. Therefore, hydrogenation is routinely encountered in drug substance synthesis.

UQUIFA Group member, SONEAS Chemicals Ltd., has vast experience in the syntheses of various materials. Our development team has a wide range of laboratory scale hydrogenators available for process development, optimization and scale-up purposes. For subsequent scale-up we have extensive large scale hydrogenation capacity.

Reactor Capacity	Pressure Rating	Material of construction
100 L	10 bar	Stainless steel
500 L	10 bar	Stainless steel
1000 L	10 bar	Stainless steel

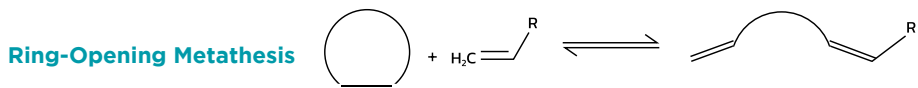
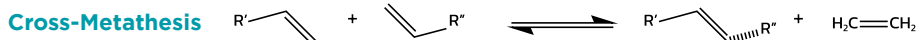
Supporting equipment

- 3,000 L stainless steel reactor for dissolution and work-up
- Buss-SMS LB01100-type film evaporator



Metathesis

Olefin metathesis is an important catalytic reaction that is perfect for making carbon-carbon bonds and building molecules. Carbon-carbon double bonds are simultaneously broken and re-formed as the reaction progresses, along with a substituent exchange, ring closing, ring opening, or polymerization. This essential family of reactions now makes a wide range of small-, medium-, and large-ring carbo- and heterocycles and a variety of acyclic unsaturated compounds. These reactions need catalysts.

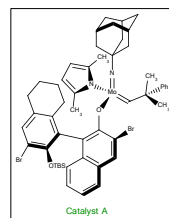
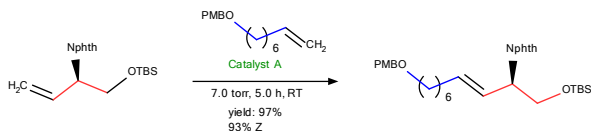


The molybdenum (Mo) and tungsten (W) catalysts that represent a new generation of metathesis catalysts are based on the breakthrough scientific research of the two founders, Amir H. Hoveyda, Richard R. Schrock, co-winner of the 2005 Nobel Prize in Chemistry. Presently these are the most popular metathesis catalysts.

Mo and W catalysts are particularly efficient and valuable catalysts in various selective transformations (including regio-, stereo- and enantioselective/asymmetric metathesis reactions) of industrial interest. From relatively simple intermediates to complex natural products synthesis, those catalysts can be widely used.

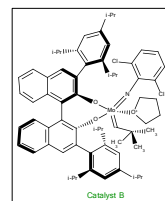
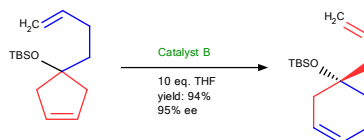
The types of reactions, that can be carried out using different Mo and W based catalysts, are the following:

Z-Selective Metathesis Reactions



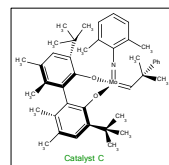
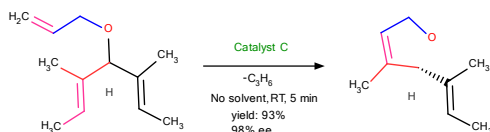
Literature: Hoveyda, Schrock, et al. *Nature* 2011, **471**, 461-465.

Enantioselective Metathesis Reaction



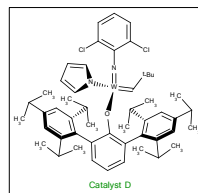
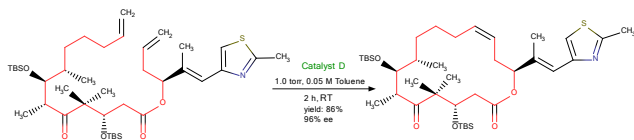
Literature: Schrock, Hoveyda, et al. *J. Am. Chem. Soc.* 2002, **124**, 10779-10784.

Asymmetric Ring-Closing Metathesis (RCM)



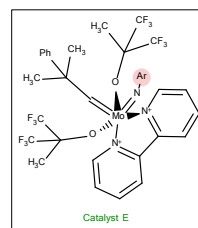
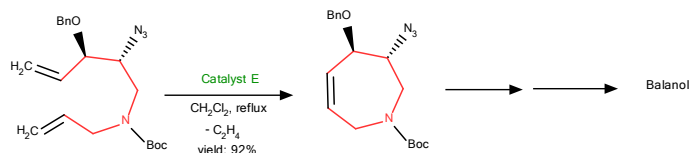
Literature: Hoveyda, Schrock, et al. *J. Am. Chem. Soc.* 1998, **9720**,
Hoveyda, et al. *Angew. Chem. Int. Ed.* 2010, **49**, 34-44.

Z-Selective Catalytic Ring-Closing Metathesis (RCM) Reactions



Literature: Hoveyda, Schrock, et al. *Chem. Eur. J.* 2013, **19**, 2726 – 2740.;
Hoveyda, Schrock, et al. *Nature* 2011, **471**, 461 and 479, 88.

Z-Selective Catalytic Ring-Closing Metathesis (RCM) Reaction



Literature: Fürstner, et al. *J. Org. Chem.*, 2000, **65** (6), 1738–1742;
Fürstner, et al. *Angew. Chem. Int. Ed.* 2011, **50**, 7829–7832.

UQUIFA Group member, SONEAS Chemicals Ltd., chemistry team can perform metathesis reaction in laboratory scale, scale up and perform multi tonne scale.

Reactors

Reactor Capacity	Material of construction
6300 L	Glass line
2500 L	Glass line

Distillation / rectification columns

Column diameter	Material of construction
500 mm	Stainless steel
500 mm	Stainless steel
150 mm	Glass line, Glass, Graphite

Flow Chemistry

UQUIFA Group is committed to accelerating the development of new active compounds and reducing time-to-market through innovative solutions. As pressures from competition, rising costs, and the growing demand for niche products increase, we recognize the need for streamlined, efficient processes. Continuous manufacturing, particularly through flow chemistry, is a key part of UQUIFA Group's strategy to enhance productivity, reduce costs, and bring new therapies to market faster.

UQUIFA Group's Flow Chemistry

At UQUIFA Group, we leverage flow chemistry as a cutting-edge solution to optimize chemical synthesis. Flow chemistry enables continuous processing of reactants through microreactors, ensuring more efficient mixing, heat, and mass transfer compared to traditional batch reactors. This results in higher yields and improved product profiles, especially for challenging reactions like nitration, hydrogenation, or processes involving hazardous materials. With flow chemistry, we gain access to advanced chemical spaces previously unreachable with batch methods, ensuring safer and more efficient production. Furthermore, flow chemistry simplifies scaling up for industrial application, reduces operational costs, and shortens commercialization timelines.

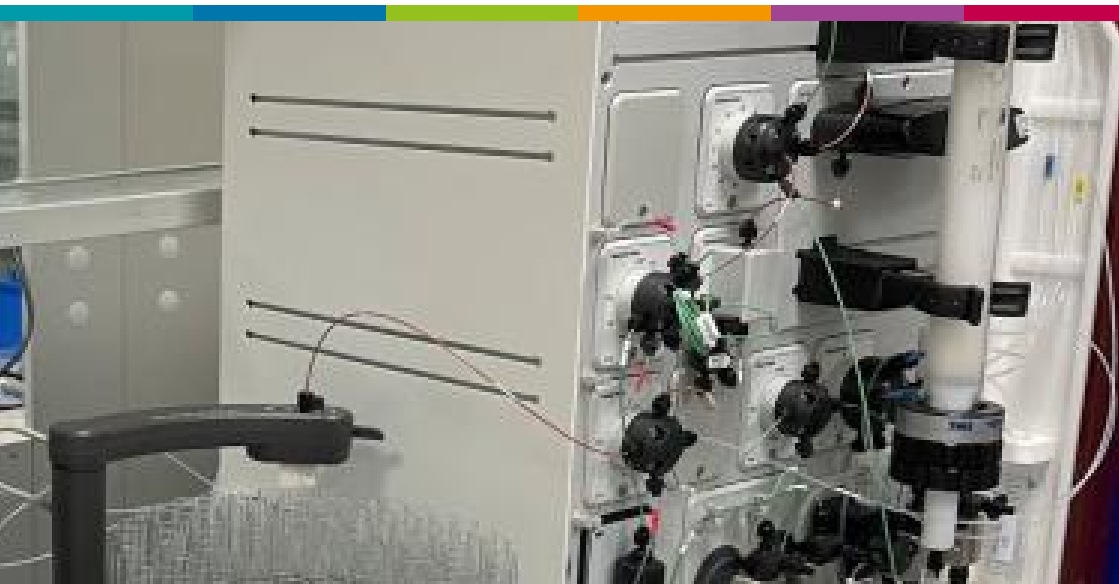


Chromatographic Purification

As the industry advances, the demand for high-purity compounds becomes increasingly critical. Chromatographic purification plays a key role in ensuring the quality, safety, and efficacy of some complex aroma chemicals and functional fragrance ingredients. Whether working with small molecules, peptides, or complex biologics, the precise separation and purification of ingredients are essential for regulatory approval and successful commercialization.

At UQUIFA Group, we utilize a state-of-the-art downstream system, equipped with preparative chromatographic columns of various sizes offering a broad spectrum of purification services tailored to meet our customers specific needs, including:

- Affinity Chromatography
- Size Exclusion Chromatography
- Reversed Phase Chromatography
- Ion-Exchange Chromatography
- Chiral Chromatography
- Normal Phase Chromatography





Equipment:

- Laboratory Unit:
 - Cytiva system: Capable of a maximum flow rate of 25 mL/min, perfect for early-stage development and small-scale purification.
 - ISCO flash/prep HPLC systems: Up to 200 mL/min, both NP and RP purifications.
- Pilot-Scale Units:
 - MPLC 200 mm Column: Optimized for mid-scale projects, offering precision and flexibility.
 - MPLC 300 mm Column: For high-volume purification, ideal for scaling up and efficient production.
 - LPLC (1-2 bars) Column: For NP chromatographic purifications (50-150 kg silica capacity).

This advanced equipment allows us to seamlessly manage projects from laboratory development to pilot-scale production, ensuring a smooth transition toward commercial readiness.

UQUIFA Group's downstream technology offers unmatched versatility, enabling the purification of both small molecules and complex modalities. Our cutting-edge system handles diverse purification challenges while consistently delivering high purity and quality, making us a reliable partner for purification needs.

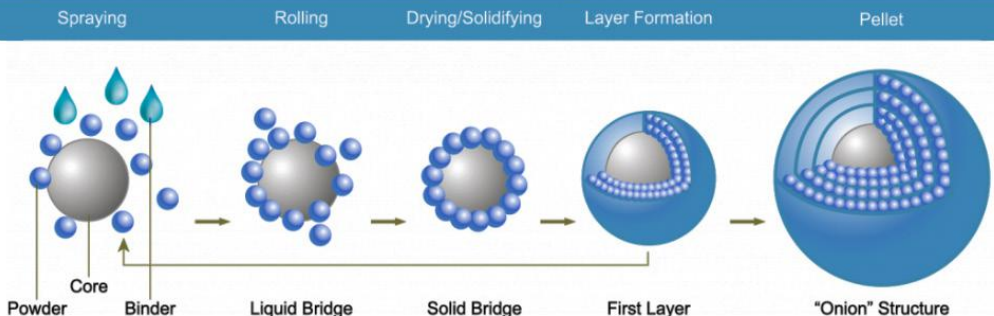
Particle Engineering

As the industry continues to evolve, particle engineering has become an essential tool to address key challenges such as poor solubility and performance of substances. UQUIFA Group brings its expertise and advanced capabilities to deliver customized particle engineering solutions ensuring optimal performance and product quality.

UQUIFA Group offers end-to-end solutions from development to commercial scale manufacturing, specializing in Micronization, Freeze Drying and Pelletizing to meet the specific particle engineering needs of our customers.

Equipment

- Container Blender
- Freeze Drying Unit
- Jet Milling Units
- Pelletizing Unit
- Pin Mill Grinding
- Powder Sieving
- Roller Compaction Unit
- Rotor Beater Mill
- Stokes Milling



At UQUIFA Group, we understand the critical factors that impact formulation and final product quality. Our particle engineering capabilities can help customers to achieve:

- Improved Flowability: Optimizing powder behavior during manufacturing processes.
- Enhanced Storage and Transport: Ensuring product stability and ease of handling.
- Enhancement: Through pH-dependent delivery systems, such as enteric coatings.

Our advanced facility supports large-scale production with a batch capacity of up to 500 kg per day, ensuring we meet your commercial manufacturing needs efficiently and reliably.



PILOT PLANT MANUFACTURING CAPABILITIES

UQUIFA SITE – SPAIN

SS: 1000 L, 200 L, 50 L

Hastelloy: 500 L

GL: 1000 L, 400 L, 200 L, 50 L

Filter Dryer SS 65 L (Class D/H14 HEPA)

Centrifuges, Hastelloy 800mm and SS 800 mm (Class D/H14 HEPA)

Micronizer MC Dec Jet. Nitrogen (Class D/H14 HEPA)

Hastelloy Vacuum Tray dryer (Class D/H14 HEPA)

Liquid-Liquid Column Extraction, Glass Koch Modular, 3", 9 m MPLC
Columns, 300 mm and 200 mm



SONEAS SITE – HUNGARY

SS hydrogenator 100 L (10 bar), 20L (10 bar)

Hastelloy: 1000 L, 35 L

GL: 1600 L, 1000 L, 630 L, 250 L

GL: 1600 L, 2 x 1000 L (HEPA environment, Class 100000, on demand)

GL reactor with DN150 distillation column

Centrifuges, SS 1000 mm (HEPA Class 100000) and PFA coated 600 mm

Filter-Dryer SS 2 x 0.4 m² (HEPA environment, Class 100 000), 1 x 0.15 m², 1 x 0.09 m²

Vacuum Tray-Dryer, up to 50 kg (HEPA environment, Class 100000)

Thin Film Evaporator QVF Glass 0.6 m

Mobile Drum Blender, SS 20 L



LARGE SCALE MANUFACTURING FACILITY

UQUIFA SITE – SPAIN

Total capacity 170000 L

16 x SS Reactors in the range 1000 - 8000 L (-40-150°C)

14 x GL Reactors in the range 2000 - 12000 L (-40-150°C)

3 x Automatic Bottom discharge Centrifuges 1250 - 1400 mm SS
(ISO 8. Class D/H14 HEPA)

2 x Automatic Bottom discharge Centrifuges 1250 mm SS

9 x Bag Centrifuges 1200 mm, SS, halar coated and Hastelloy

3 x Rosemund Guedu filter-dryer 6000 L SS (ISO 8. Class D/H14 HEPA)

2 x Filter-dryer 3000 L SS (ISO 8. Class D/H14 HEPA)

4 x Paddle Dryer, SS 4000 L, 2 x 2000 L, 400 L (ISO 8. Class D/H14 HEPA)

1 Nauta Dryer, SS 4000 L



LARGE SCALE MANUFACTURING FACILITY

SONEAS SITE – HUNGARY

Total capacity 170000 L

11 x SS Reactors: 500 L, 1000 L, 2000 L, 2 x 2500 L, 3 x 3000 L, 4000 L, 2 x 8000 L

29 x GL reactors 250 L, 500 L, 5 x 2500 L, 4 x 3000 L, 8 x 4000 L, 8 x 6300 L,
10000 L, 12500 L

Copper lined reactor 1000 L

9 x Centrifuges: 5 x 1000 mm, 3 x 1250 mm, 800 mm

Filter-dryers: Comber 4 m²; Delta 3 m²

GL Double cone-dryer - 2000 L

Vacuum tray dryer - 1000 L

2 x Paddle dryer - 1000 L

Hastelloy reactor - 2500 L



SONEAS SITE – HUNGARY

HYDROXYETHYLATION UNIT

Stainless Steel 3700 L

Glass Line 6300 L and 3000 L

HYDROGENATION UNIT

Stainless Steel 500 L (10 bar) and 1250 L (10 bar)

3000 L Stainless Steel reactor for dissolutions and work up

Buss SMS LBO1100-type thin film evaporator

METATHESIS UNIT

Glass line: 6300; 2500 L

Distillation/rectification columns:

- Stainless steel: 2 x 500 mm
- Glass line, Stainless steel, Graphite: 150 mm



PARTICLE ENGINEERING TECHNOLOGIES

UQUIFA SITE – SPAIN

Powder sieving (2 industrial units)
Container blender (1 industrial unit)
Rotor Beater Mill (Retsch SR300 unit)
Powder sieving (1 industrial unit)
Pin Mill Grinding (5 industrial units)
Jet milling (1 industrial unit and 1 pilot scale)
Roller Compaction (1 industrial unit)
Freeze Drying (1 industrial unit)
Pelletizing (1 industrial unit)



PURIFICATION CAPABILITIES

Destillation Column

250 L QVF GL reactor, DN150 glass distillation column filled with Sulzer Mellacarbon packing with 20 theoretical plate numbers. 2000 L + 3000 L SST reactor reactor with DN500 with Sulzer MellapakPlus distillation columns with 15 theoretical plate numbers.

Film Evaporator

0,6 m² QVF glass thin film evaporator, 1 m² SST thin film evaporator

Purification Chromatography

1 laboratory unit: max flow rate up to 25 mL/min
2 pilot scale units, MPLC 300 mm and 200 mm



DRYING CAPABILITIES

Paddle Dryers



2 x 1000 L, MoC: SST



1 x 3900 L, 2 x 2210 L, 1 x 560 L

Vacuum Tray Dryers



1 large unit (Class 100000 HEPA environment) - up to 50 kg



2 small units - up to 5 kg



1 industrial unit (up to 200 kg, MoC: SST)



1 industrial unit
(1 x 4500 L MoC: SST)



2 small units
(1 x 11 L, 1 x 115 L MoC: Hastelloy)

Filter Dryers



20 L & 50 L mobile
processfilter/dryer



2 x 387 L process filter/dryer



2000 L +5000L SST filter dryers



4 industrial units (2 x 5900 L,
1 x 5000 L)



1 x 3000 L (MoC: all SST)



1 pilot unit 1 x 64 L 1 x 3000 L
(MoC: SST)

Vacuum Conical Dryers



1 x 4000 L SST

Double Cone Dryer



1 industrial unit 1600 L



UQUIFA SITE - SPAIN



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SONEAS
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