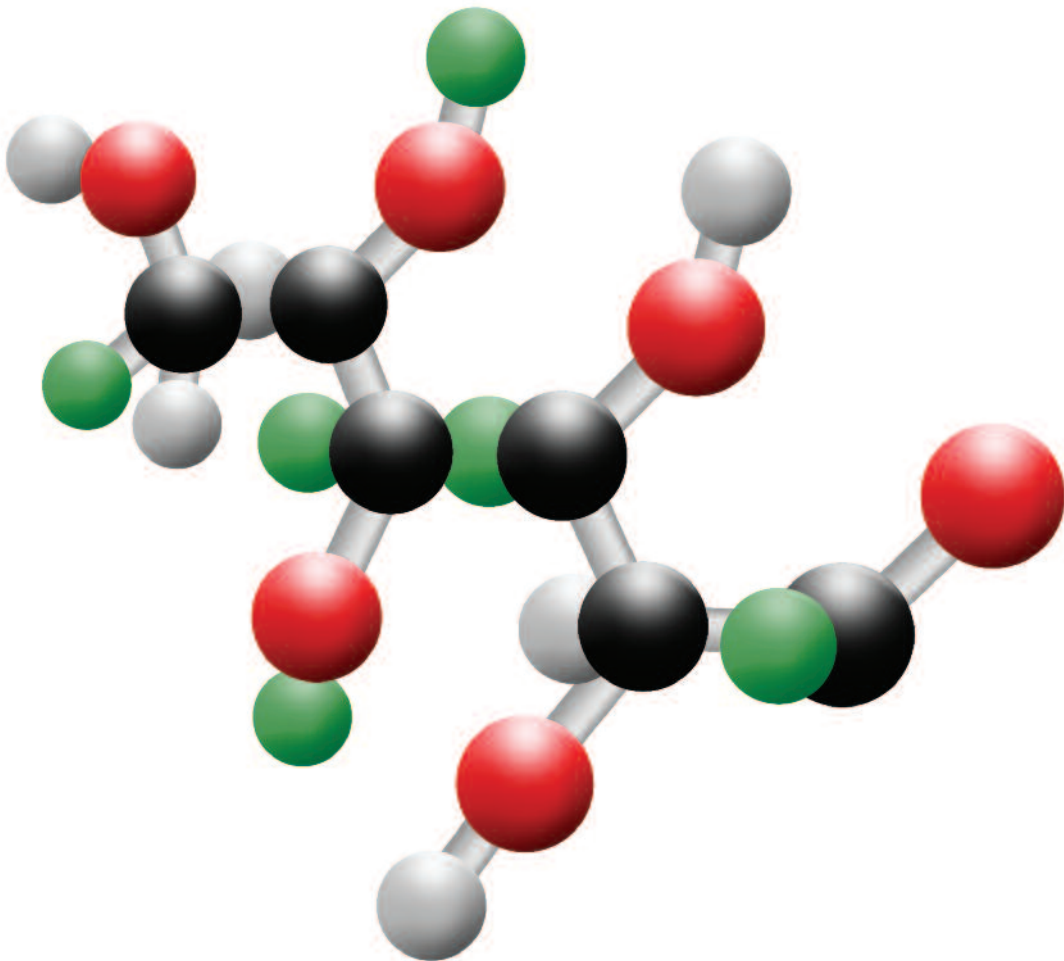


Q8 Research

perfecting petroleum





"Q8 is committed to innovative research and the sustainability of our energy resources and the environment."

Bakheet Al-Rashidi,
President Kuwait Petroleum International

content

our services

- *laboratory testing & analysis*
- *product services*
- *safety, health & environment*
- *market data & legislation*
- *business liaison*
- *training*



Q8Research

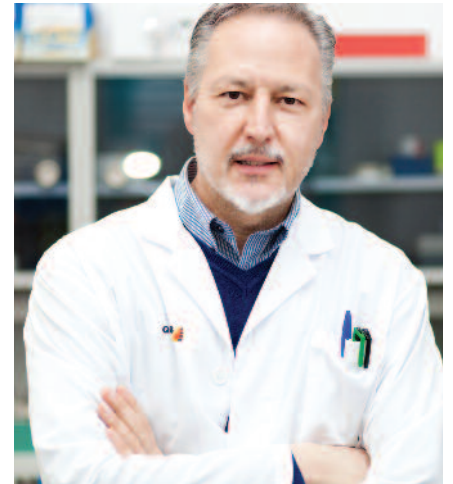
Established 50 years ago, Q8Research is a world leader in petrochemical and refining research. We have won industry acclaim around the world for our constant drive to perfect petroleum, benefitting millions of people for decades to come.

Q8Research is part of Kuwait Petroleum Corporation, the state-owned oil company of Kuwait. Our activities encompass new product development, specifications for materials and products, legislation compliance and quality control. We also provide a product testing, certification and quality control service to Europoort, Q8's refinery in Rotterdam. This entails problem solving, optimising the daily operation of each unit and employing the latest test techniques.

Every section of Q8Research works in close harmony to create a single unit of expertise and experience. Our laboratory services are complemented by our ability to transfer chemical and physical performance into high performing, cost effective products. This wide-ranging expertise enables Q8Research to offer a consultancy service for many other aspects of the petroleum industry such as SHE, market intelligence, legislation and training.

With our holistic approach to petroleum research and product development, Q8Research is ideally placed to provide the very best support to our customers.

- *50 years of petroleum research & development*
- *40+ scientists & support staff*
- *ISO 9001, OHSAS 18001, ISO 14001 & RC 14001 certified*
- *Testing 50,000 samples & 350,000 analyses every year*



Q8Research scientists have been perfecting petroleum for more than 50 years.

The main laboratories of Q8Research are located in Rotterdam, the Netherlands.





laboratory testing & analysis

For innovative product development and the ability to solve complex problems, it is essential to have extensive testing and analysis capabilities, experienced and knowledgeable people, and a clear understanding of customer needs.

The strength of Q8Research lies in our ability to take a full lifecycle approach to product development. Products that start life on the laboratory bench are meticulously analysed at each stage of the development process until we are satisfied that they are ready for our customers.

We offer our broad range of facilities and competencies to our business partners. Whatever the challenge, our customers can rely on the highest level of service and support.

One of our most popular services is Kuwait Research Analysis Service (KRAS) a field-based system that determines the condition of oil samples and equipment. Customers receive fast, reliable results via e-mail or by log-in to a dedicated site.

organic chemical

Testing provides an insight into the chemical composition of a fluid or material, enabling us to understand its positive or negative effect on performance.

inorganic chemical

Testing focuses on elemental analysis, which identifies elements such as sulphur and wear metals. This is especially useful in identifying the reasons for the failure of mechanical components.

petroleum

A wide range of tests, including viscosity, foaming, TAN/TBN, flash point and demulsibility, assist the physical characterisation and understanding of petroleum products.

performance

In this transition stage between development and marketing, testing simulates the performance of the product, for example in terms of wear, oxidation, filtration and fuel economy.

engine

We use engine test beds to monitor the performance of fuels and lubricants in automotive or power generation applications, such as diesel fuel injector fouling. Our engine test laboratory also has test rigs for analysing hydraulic oil performance.

field

Our team of Product Line Managers and Field Service Technicians, based in many countries, co-ordinate automotive and industrial testing on-site with customers and Original Equipment Manufacturers.



Q8Research can conduct more than 400 different tests to support product characterisation and development.




Engine test capabilities are essential for the successful development of automotive products.



Our field based staff support product trials and play a key role in transferring technology from the laboratory to our customers.





Q8Research's wealth of product knowledge stems from more than 50 years' experience.

Within the Kuwait Petroleum group, we support our sister companies whose activities span refining, blending, fuel retailing, marine & aviation fuels, lubricants and chemicals.

Outside of the company, Q8Research works closely with organisations and customers in the automotive, industrial, manufacturing and energy sectors, including Original Equipment Manufacturers.

Our database of technical information and human expertise is based on five decades of product development and problem solving, and is available to all our customers.

Kuwait Petroleum Corporation has five refineries in the Middle East and Europe, with three more at various stages of development, including the Far East.

product services

crude oils

Crude assays are available for product from around the world. Q8Research also has an extensive database containing many years of historical data on yields and quality.

LPG & aerosol propellants

Q8Research offers advice on product performance for most applications and we have in depth experience of 'clean' products for industries such as cosmetics.

gasoline & diesel

We conduct product characterisation for defining specifications and development on cleanliness, additive technology and fuel economy testing.

kerosene

Our parent company Kuwait Petroleum Corporation is the world's largest supplier of jet fuel and Q8Research has become a leading specialist in jet fuel quality, performance, regulations and handling procedures.

heavy fuel oil

Because of our proximity to the Q8 Europoort refinery, we have developed expertise in maximising the benefits of heavy fuel oil, notably for marine applications.

bitumen

Our scientists have extensive knowledge of bitumen and polymer blending applications, including construction, roofing, print and automotive sound proofing.

wax

Wax is traditionally used by the candle industry; Q8Research has helped to extend its use to other applications such as chipboard, emulsions, anti-caking and anti-dust agents, petroleum jellies and household care products.

process oils & extracts

Q8Research's expertise in the formulation and application of process oils has led to their use in a broad range of applications including rubber, printing inks, paint, leather, textiles and foam inhibitors.

base oils

Our database includes virtually every base stock available worldwide. We draw on this knowledge to match base stocks with lubricant applications and performance requirements.

lubricant development

We provide advice and support on automotive and industrial applications including formulations, additive selection, field testing, OEM approvals, blending and quality.

Q8Research is a community of forward-thinkers who relish the challenge of transferring cutting-edge innovation into practical everyday applications.

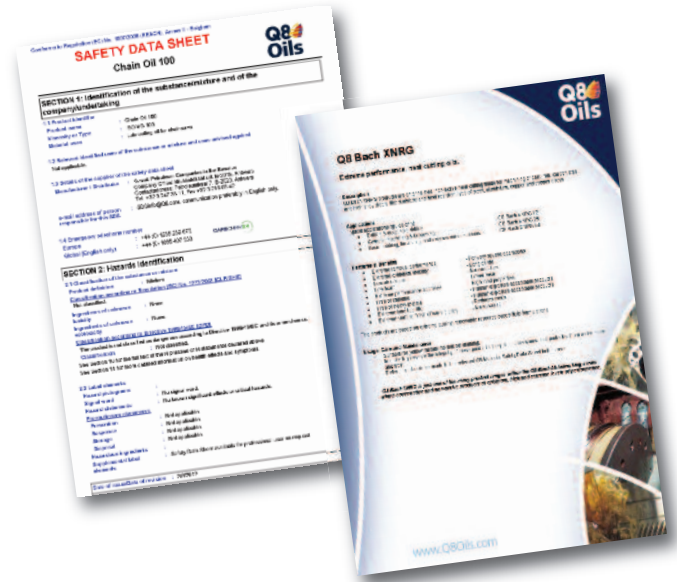


safety, health & environment

Our top corporate priority is the safety and health of our employees and other stakeholders; at the same time, we seek to minimise the environmental impact of our activities. Leadership accountability for performance is fundamental to our management systems. The actions of our people, excellence of our processes and respect for our stakeholders visibly demonstrate the commitment of Kuwait Petroleum Corporation to world class SHE performance.

This ethos has led to Q8Research becoming the focal point of the group's SHE culture and we have built extensive knowledge in product data and material handling. Our team includes specialists in REACH (Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals) and Q8Research's valuable contribution to the industry has been recognised with Concawe awards.

We offer our customers and partners SHE information and documentation in more than 40 languages, helping them to comply with the legislation of countries where they operate.



- product data sheets •
- material safety data sheets •
- REACH •



market data & legislation



Q8Research holds information on the global petroleum market, suppliers and products dating back 50 years.

This market intelligence comprises of millions of documents, all available digitally, and includes data on Original Equipment Manufacturer requirements and compliance issues in more than 40 countries.

Q8Research has established a reputation as the partner of choice for OEMs, industry bodies and educational institutions, when advice is needed on legislation or compliance issues in their industry.

- market data •
- product trends •
- International & local legislation •



European industry organisations



universities & technical institutes



original equipment manufacturers



business liaison

Q8Research has a strong track record of influencing and offering pragmatic solutions for industry issues. For many years, experts from Q8Research have chaired leading industry bodies, such as Concawe.

We have been instrumental in shaping legislation and specifications for industries, products, processes and procedures. This has been made possible by the in depth knowledge of our experts and our regular collaboration with leading universities and technical institutions in Europe.

We also have close relationships with automotive and industrial Original Equipment Manufacturers to ensure that the products of both Q8 and our partners meet and exceed requirements.

Q8Research can facilitate collaboration with Original Equipment Manufacturers, universities, technical institutes and trade bodies.



training

Our extensive training programmes cover many aspects of the petroleum industry. They are held in our research and development laboratories in the Netherlands which have specially equipped facilities. Alternatively, our lecturers can run training courses on site, anywhere in the world.

For more information on the courses below, please get in touch with us (see back cover for contact details) or email Q8Research-Training@Q8.com.



Q8Research training, available worldwide, provides the expertise and knowledge to develop the skills of the next generation of petroleum experts.

- Petroleum laboratory testing
- Engine testing
- Test Methods
- Crude oils
- LPG & Aerosol propellants
- Gasoline
- Kerosene
- Diesel fuels
- Heavy fuel oil
- Bitumen
- Base oils
- Additives
- Global Fuel Product Specifications
- Lubricant development

- Market trends
- Product trends
- Health, Safety & Environmental services
- REACH
- Material Safety Data Sheets
- Product Data Sheets
- International & local petroleum legislation
- Passenger car motor oils
- Heavy duty diesel engine oils
- Transmission oils
- Agricultural & off-road oils
- Hydraulic oils
- Industrial Gear oils
- Compressor & refrigerating oils
- Demoulding oils
- Heat Transfer oils
- Circulation oils
- Gas Engine oils
- Metal Working Fluids
- Greases
- Antifreeze & coolants





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