

# AGQM

Association Quality Management Biodiesel

Our quality  
makes the  
difference



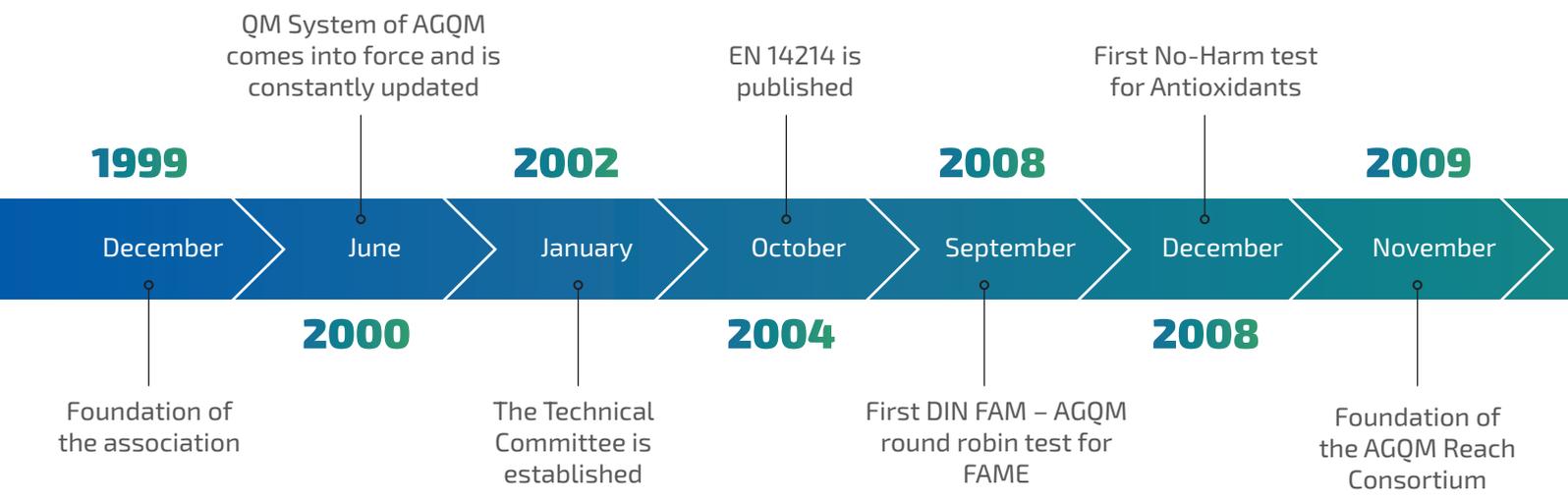
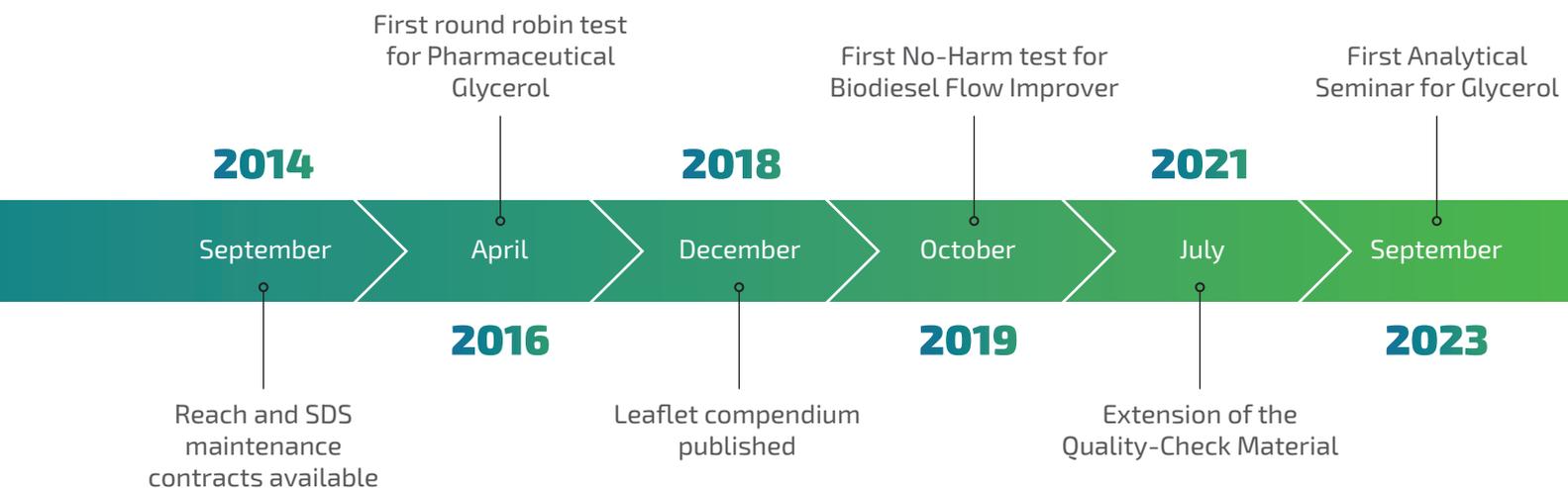


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# Experience makes the difference

Since 1999 the Association Quality Management Biodiesel (AGQM) guarantees the highest quality.

## WHO IS THE AGQM BIODIESEL?

The group of AGQM members includes biodiesel producers, biodiesel traders, associations, additive manufacturers, and research institutes. With about 80% of the German biodiesel capacity, the association is dedicated to the technical and qualitative challenges of the biodiesel industry.

## WHAT DOES THE AGQM DO?

The three pillars of AGQM are quality assurance, technology and services. Even today, more than 20 years after its foundation, the quality assurance of FAME and its by-products is the main focus. In addition, the AGQM is involved in various research projects and committees.

## WHAT ARE THE ADVANTAGES FOR THE MEMBERS?

Every member belongs to the quality family that enjoys an outstanding reputation far beyond the borders of Germany! AGQM's work in standardisation and research is one building block for the continuation of bio-

diesel in the fuel mix. Furthermore,, offers from AGQM in the areas of REACH, seminars and round robin tests can be accepted at reduced prices.

## HOW DOES THE ASSOCIATION INVEST IN THE FUTURE?

Research projects, cooperation with other associations and experts as well as standardisation work are fundamental measures. In addition, new ideas are constantly being developed to further secure the use of FAME.

## WHAT ARE YOU PARTICULARLY PROUD OF?

The AGQM employees who, after changing times, become an excellent and stable team in which everyone has developed into an expert in its field. Thereby various tasks could be linked to the office. At the same time, everyone is ready to evolve to achieve great things in the future.

**Dr. Richard Wicht, CEO**

# QUALITY ASSURANCE

## Because quality matters!

AGQM's ambitions support the best quality in biodiesel—nationally and internationally. For this purpose, the association uses the concentrated know-how of gathered experts and relies on independence, high standards and data security.

You are not certified by ISO 9001? No problem, because AGQM's quality management system is based exactly on this.

For members who are not ISO 9001 certified or want an additional inspection the AGQM carries out an annual audit. Thereby, the quality standards are reviewed and corrected upwards if necessary. Annually changing the focus of the inspection leads to a continuous further development of the participating companies.

### **HIGHEST QUALITY IS OUR GOAL!**

For ISO 9001 certified members, presentation of the valid certificate is sufficient as proof of conformity with the AGQM quality management system.



## INDEPENDENT ANALYSIS

- › At least three unannounced samplings per year at all manufacturers and warehouse operators who are members of AGQM
- › Testing by an independent laboratory – Analysis and documentation according to DIN EN 14214
- › Publication of the results in the annual quality report
- › Results are available to members free of charge: e.g. for official audits such as those of the German customs authorities or similar
- › Increasing the trustworthiness and credibility of all inspected companies through independent authority

# QUALITY ASSURANCE

## WHY AGQM QUALITY ASSURANCE?

### *Why is the testing required?*

Our strict quality management system sets the requirements, the parameters and limit values to be checked for AGQM biodiesel. For the parameters water content, total contamination and CFPP stricter limit values apply that exceed the requirements of DIN EN 14214. The results of the sampling are anonymized and publicly available. As a result, only high-quality biodiesel that meets the limit values of EN 14214 is in circulation.

### *Are the data safe?*

Data security is essential for a trusting cooperation. Thus, all the results are evaluated strictly confidentially and anonymously to avoid any distortion of competition.

### *What happens if an analysis does not show the desired results?*

The member is informed as quickly as possible about the anomalies of the test. Together, we look for reasons and assist in solving the problem.

### *What is the impact of AGQM's work on the use of biodiesel?*

Many years of experience and well-founded results are used for the technical development of biodiesel. With those findings, we prove the usability of biodiesel and have an excellent basis for argumentation for the automotive industry and fuel injection system manufacturers.



**AGQM-Biodiesel**  
Our quality makes the difference



**Auditing of the members**



**Round Robin Tests (RRT)**



**Quality-Check Material**

## ROUND ROBIN TESTS – AGQM INTERNATIONAL

More than 50 laboratories worldwide participate in the unique round robin tests of the AGQM.

### *FAME, Vegetable and Used Cooking Oils:*

Participation in round robin tests is mandatory to prove the measurement capability to the customs authorities. The Round Robin Test FAME queries all parameters of EN 14214, which are listed in the 36th BIm-SchV as well as additional parameters such as cetane number, pour point and saturated monoglycerides. For the analysis of oils, the parameters of DIN 51623 and selected standard parameters are examined. All participants receive anonymized results and a certificate on their own results including an evaluation according to Z-scores. The round robin tests are carried out in cooperation with DIN FAM.

### *Pharmaceutical Glycerol:*

This round robin test is dedicated to the analysis of pharmaceutical glycerol. Various parameters from the European Pharmacopoeia and the fuel standards are tested.

## QUALITY-CHECK MATERIAL

Reliable measurement results are the prerequisite for a safe production and quality control. For this purpose, regular checks of the measuring methods used in the laboratory are essential. In addition to calibration, the use of reference material, so-called quality-check material (QC material), has proven its worth in everyday laboratory work for checking one's own measurement accuracy and instrument control as well as for identifying operating, device, and systematic errors.

Together with ASG Analytik-Service AG, AGQM Biodiesel offers the following ready-to-use QC materials:

- › QC Material MR (Multi-Reference)
- › QC Material CFPP (Cold Filter Plugging Point)
- › QC Material OS (Oxidation Stability)
- › QC Material MeOH (Methanol Content)
- › QC Material PhGly (Pharmaceutical Glycerol)

The reference materials have been specified in interlaboratory tests by qualified laboratories and are shipped with a batch-related certificate of analysis.

The QC material MR covers a large number of parameters of EN 14214. For the determination of CFPP, a larger amount of sample material is usually required, which is why there is a separate QC material for this parameter. The QC materials OS and MeOH are provided in 5 ampoules of 8 ml each; this ensures that the rest of the delivery remains stable. With the help of the QC material PhGly, certain methods of the European Pharmacopoeia (PhEur) can be checked.



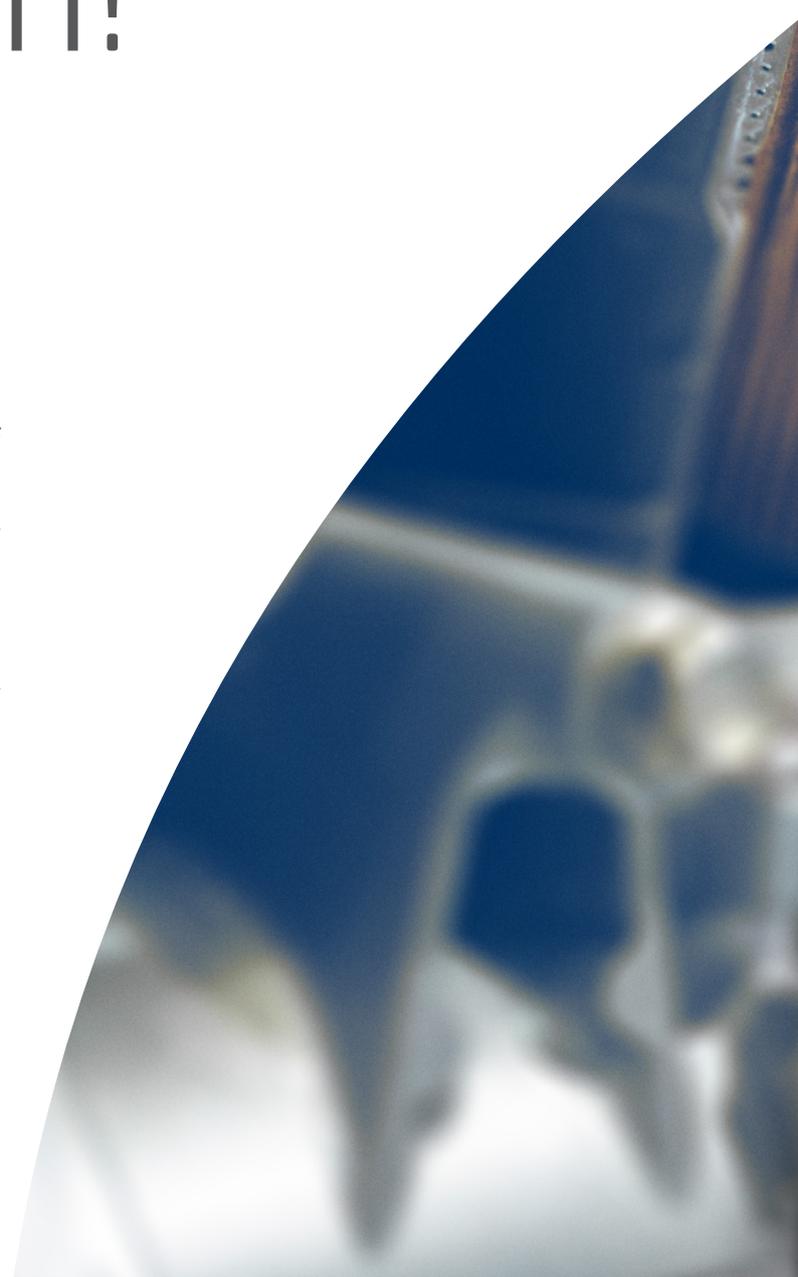
# TECHNOLOGY

## Biodiesel – A Contribution To Environmental Protection!

Biodiesel protects the climate and fossil resources: With greenhouse gas savings averaging 83 percent, the use of biodiesel is an effective measure to significantly reduce the CO<sub>2</sub> footprint already today and in the existing vehicles.

Biodiesel is produced from a wide range of raw materials. For example, sustainable vegetable oils, used cooking oils and animal fats are used, which are currently available in sufficient quantity and quality.

The current approval lists for commercial vehicles and inland navigation show that biodiesel can also be used in pure form in vehicles with state-of-the-art exhaust gas aftertreatment systems and is approved by engine manufacturers. Companies can find information on the compatibility of engines and biofuels on the current approval lists. Current data are available for the marine and commercial vehicles sector. Interested parties can obtain individual information on the use of biodiesel in passenger cars on request.





## ALWAYS UP TO DATE

Always at the cutting edge of research and technology: This is extremely important in order to be able to guarantee the highest standards on a permanent basis and to act as a pioneer for biofuel. That is why AGQM provides the convenor of the Working Group FAME fuel development, and is an active member in various working groups. The aim is to continuously develop standards and directives to ensure that they meet current and future requirements. This technically well-founded development is one of the AGQM's most important tasks.



**AGQM-Biodiesel – Standardization**



**Research and Development**

# SERVICES

## Diversity in all areas

Accuracy and correct information are extremely important for everyone involved. Here we present some tools that will help in the long run:

### **NO-HARM TESTS**

This means the no-harm testing of oxidation stabilisers and flow improvers that are added to biodiesel as additives. For this purpose, a combination of different methods of effectiveness control, testing for the absence of interaction as well as the safe use applies. The analyses and engine tests are carried out in accredited, experienced laboratories. Successfully tested additives are published in the respective AGQM No-Harm lists.

### **REACH SERVICES**

Every company that produces or imports chemical substances must deal with the REACH regulation. AGQM supports registrants in registering new substances, the updating of existing dossiers and the preparation of safety data sheets. Due to our many years of experience, we have valid and extensive knowledge in the REACH area of FAME and its by-products .

Upon request, AGQM will also take over the continuous review and updating of the REACH-IT accounts and the maintenance of all safety data sheets for the client. Already 29 participating companies appreciate this service and all the associated benefits.

### **SEMINARS**

Once a year there is one German and one English seminar on biodiesel analysis. These seminars focus on the production of biodiesel on a laboratory scale as well as the implementation and explanation of analytical methods according to EN 14214 in the well-equipped laboratories of the ASG Analytik-Service AG.

During the analytics seminars, current issues and questions of the industry are addressed. They are ideally suited for the induction of new employees in the biodiesel industry or as further and advanced training for QM officers, laboratory staff or other interested parties in your company.

Are you interested in a seminar for glycerol? Then please contact us.



**REACH Regulation**



**Additive Testing**



**Analytics Seminar**



**Lab Coaching**

**AGQM – ASSOCIATION  
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**BECOME A MEMBER, NOW!**

[bit.ly/MitgliedAGQM](https://bit.ly/MitgliedAGQM)

