



## Quality Check Material

Reliable measuring results are a prerequisite for the safe production and quality management of biodiesel or pharmaceutical glycerol. For that purpose, regular checks of all methods used in the laboratory are indispensable. Apart from calibration the use of Quality Check Material (QC material) has proven to be an effective measure in every-day laboratory practice.

Jointly with Analytik-Service AG (ASG), the Association Quality Management Biodiesel (AGQM) offers QC materials for the monitoring of test methods and equipment used for several parameters of EN 14214 or the European Pharmacopeia. The QC materials have been specified in round robin tests by qualified laboratories and represent reliable references.

In particular, the QC materials can be used for additional check of own measuring accuracy, for identification of operating, device, and systematic errors, for regular measuring device checks and documentation. The materials are characterised by their ease of use - the QC materials are treated exactly like regular samples - and their high reliability through validation in the round robin tests. Each delivery is accompanied by a batch-related certificate of analysis. The safety data sheets for the QC materials can be found on the AGQM website if required.

We offer six different QC materials which are easy to handle and ready to use:

**QC Material MR (Multi-Reference)**

**QC Material CFPP (Cold Filter Plugging Point)**

**QC Material OS (Oxidation Stability)**

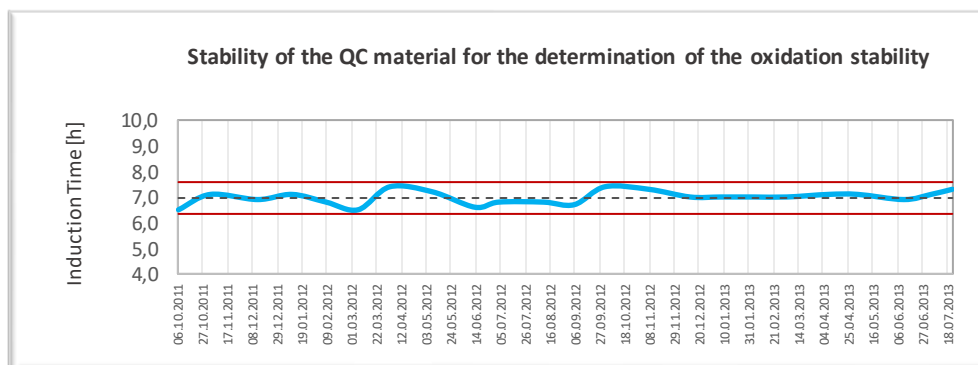
**QC Material MeOH (Methanol Content)**

**QC Material PUFA (Polyunsaturated Fatty Acid)**

**QC Material PhGly (Pharmaceutical Glycerol)**

The QC material MR covers many 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 material OS and MeOH are provided in 5 ampoules of 8 ml each and the QC material PUFA is provided in 2 ampoules of 8 ml each. This ensures that the rest of the supply remains stable. With the help of the QC material PhGly, certain methods of the European Pharmacopoeia (PhEur) as well as some additional methods can be checked. The exact areas of application of the QC materials can be found from page 3 on.

Careful manufacture and optimum storage conditions guarantee for high stability as can be seen from the following graph using the example of QC material OS.





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**ASG**  
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## Ordering Information

### Quality Check Material MR

Sales Unit: 1 screw cap bottle, aluminium, 100 ml  
Price: € 145.00 plus VAT (if applicable)

### Quality Check Material CFPP

Sales Unit: 1 screw cap bottle, aluminium, 250 ml  
Price: € 316.00 plus VAT (if applicable)

### Quality Check Material OS

Sales Unit: 1 set of 5 ampoules, 8 ml each  
Price: € 215.00 plus VAT (if applicable)

### Quality Check Material MeOH

Sales Unit: 1 set of 5 ampoules, 8 ml each  
Price: € 215.00 plus VAT (if applicable)

### Quality Check Material PUFA

Sales Unit: 1 set of 2 ampoules, 8 ml each  
Price: € 113.00 plus VAT (if applicable)

### Quality Check Material PhGly

Sales Unit: 1 screw cap bottle, aluminium, 100 ml  
Price: € 173.00 plus VAT (if applicable)



### Delivery Charges

Delivery charges (Germany)	€ 50.00 plus VAT (if applicable)
Delivery charges (Europe)	€ 80.00 plus VAT (if applicable)
Delivery charges (abroad)	€ 155.00 plus VAT (if applicable)

## Technical Information

### Composition:

QC-Material MR, CFPP, OS, MeOH, PUFA: Fatty Acid Methyl Ester (FAME)  
QC-Material PhGly: Pharmaceutical Glycerol

### Shelf life/Durability:

Minimum 6 months



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# Scope of Application of the Quality Check Materials

## Scope of Application – Quality Check Material MR:

**EN 116:** Determination of cold filter plugging point - Diesel fuels and domestic heating oils

**EN 14103:** Determination of ester and linolenic acid methyl ester contents - Fat and oil derivatives - Fatty Acid Methyl Esters (FAME)

**EN 14105:** Determination of free and total glycerol and mono-, di-, triglyceride contents - Fat and oil derivatives - Fatty Acid Methyl Esters (FAME)

**EN 14107:** Determination of phosphorus content by inductively coupled plasma (ICP) emission spectrometry - Fat and oil derivatives - Fatty acid methylesters (FAME)

**EN 14111:** Determination of iodine value - Fat and oil derivatives - Fatty acid methylesters (FAME)

**EN 14538:** Determination of Ca, K, Mg and Na content by optical emission spectral analysis with inductively coupled plasma (ICP OES) - Fat and oil derivatives - Fatty acid methyl ester (FAME)

**EN 16300:** Determination of iodine value in fatty acid methyl esters (FAME) - Calculation method from gas chromatographic data - Automotive fuels

**EN 23015:** Determination of cloud point - Petroleum products

**EN ISO 3675:** Laboratory determination of density - Hydrometer method - Crude petroleum and liquid petroleum products

**EN ISO 12185:** Determination of density - Oscillating U-tube method - Crude petroleum and petroleum products

**EN ISO 20846:** Determination of sulfur content of automotive fuels - Ultraviolet fluorescence method - Petroleum products

**EN ISO 20884:** Determination of sulfur content of automotive fuels - Wavelength-dispersive X-ray fluorescence spectrometry - Petroleum products

## Scope of Application – Quality Check Material CFPP:

**EN 116:** Determination of cold filter plugging point - Diesel fuels and domestic heating oils



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### **Scope of Application – Quality Check Material OS:**

**EN 14112:** Determination of oxidation stability (accelerated oxidation test) - Fat and oil derivatives - Fatty acid methylesters (FAME)

**EN 15751:** Determination of oxidation stability by accelerated oxidation method - Automotive fuels - Fatty acid methyl ester (FAME) fuel and blends with diesel fuel

### **Scope of Application – Quality Check Material MeOH:**

**EN 14110:** Determination of methanol content - Fat and oil derivatives - Fatty acid methylesters (FAME)

### **Scope of Application – Quality Check Material PUFA:**

**EN 15779:** Determination of polyunsaturated ( $\geq 4$  double bonds) fatty acid methyl esters (PUFA) by gas chromatography - Petroleum products and fat and oil derivatives - Fatty acid methyl esters (FAME) for diesel engines

### **Scope of Application – Quality Check Material PhGly:**

**PhEur 10 / 0496:** Determination of Glycerol Content

**PhEur 10 / 0496:** Determination of Ester Content

**PhEur 10 / 0496:** Impurities A and related substances

**PhEur 10 / 2.5.12:** Determination of Water Content

**PhEur 10 / 2.2.6:** Determination of Refractive Index  $n^{20}_D$

**EN ISO 12185:** Determination of density - Oscillating U-tube method - Crude petroleum and petroleum products

**EN ISO 6271-2:** Estimation of colour by the platinum-cobalt colour scale - Clear liquids