



## EELQMS QUALITY MANAGEMENT SYSTEM

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Bulletin No. 6 - 25<sup>th</sup> July 2023

### **Managing Risk, Ensuring Compliance with the ACEA European Engine Oil Sequences**

Engine lubricants perform a vital function by protecting moving parts, reducing wear & tear, limiting harmful exhaust emissions and supporting vehicle performance & fuel economy.

These types of lubricants comprised of complex chemistries have been developed and thoroughly tested to ensure they provide adequate protection and prolong the life of the vehicle.

Using an engine lubricant that is not intended for use in a specific vehicle, or which does not use the correct underpinning technology, can cause accelerated wear to moving parts, risk an increase in harmful exhaust emissions, lead to lower performance & poorer fuel economy or, in extreme circumstances, catastrophic engine failure.

The engine oil sequences of ACEA, the European association of vehicle manufacturers, are a set of market standards against which Lubricant Marketers can make performance claims. The use of such claims against these sequences are not mandatory but if they are made, then Lubricant Marketers must follow the European Engine Lubricant Quality Management System (EELQMS), developed by ATIEL jointly with ACEA and ATC, the Additive Technical Committee.

#### **Why the ACEA claim is important**

These claims form a baseline performance requirement for many Original Equipment Manufacturer (OEM) specifications and are often cited in vehicle handbooks as a secondary option when the OEM specified lubricant is not available.

Claims made by Lubricant Marketers against the ACEA engine oil sequences are self-certifying. Lubricant Marketers must ensure the correct underpinning technology is used in any finished lubricant formulation to assure the end user that any performance claims made can be fully achieved, documented and supported by with the right technical evidence.

Lubricant Marketers are responsible for the integrity of the finished lubricant during the entire supply chain. They will specify the requirement to develop a particular engine lubricant, work with their technology provider, or additive company, and base stock manufacturer to develop the lubricant before marketing the product to end users.

It is therefore essential that any self-certifying claims made against the ACEA engine oil sequences are fully supported by the technology provider and these can be evidenced within an auditable quality management system.



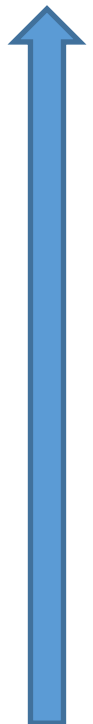
**Risk Matrix**

Engine lubricants with claims against ACEA engine oil sequences usually fall into one of two categories. Engine oil either meets the relevant ACEA engine oil sequences that are claimed, or it doesn't - there is no conditional compliance permissible under the sequences.

Performance claims that are fully supported by the technology provider, using a valid additive package at the correct treat rate with approved base stocks to the required quantities, as documented within an auditable quality management system. These carry the lowest level of risk for the end user.

Performance claims unsupported or unevidenced by the technology provider. The technology underpinning the performance claims could be unmatched to the ACEA engine oil sequences performance claim, be unevidenced or undocumented or simply not supported. There may be an absence of testing of the technology resulting in the highest risk that the technology and/or base stocks deployed in the finished lubricant will not meet the performance claims made. Lubricants in this class carry the highest risk for the end user and the products will not be compliant with ACEA engine oil sequences.

	<b>Performance Claims Made</b>	<b>Self-certifying claims fully supportable</b>	<b>Full compliance with ACEA engine oil sequences</b>	<b>Risk</b>
<b>Performance Claims unsupported or unevidenced by additive company</b>	No performance claims supported by the technology provider or cannot be documented or evidenced, the wrong base stocks may be used.	No	No	High
<b>Performance Claims fully supported by additive company</b>	All performance claims match those supported by the technology provider using a valid additive package at the correct treat rate and approved base stocks in the right quantities.	Yes	Likely	Lowes



**Figure 1: Test Requirements and Risk Levels Associated with Each Risk Level**

Performance claims that are not supported by the additive company or are unmatched to the technical specification of the product, risk accelerated wear to gears and bearings in end user vehicles and could impact on the brand reputation of the Lubricant Marketer.



The Lubricant Marketer remains fully responsible for the performance claims made of the product, and they are liable for the integrity of the supply chain in offering the customer an engine lubricant which is compliant with their specification.

Additive technology is tested over many thousands of hours to ensure it can support the Lubricant Marketer's performance claims when used at the correct treat rate and matched with approved base stocks at the right quantities. When compliant ACEA claims are made, the end user can be assured that the performance claims made on the product are fully supported by the underpinning technology as documented and evidenced within an auditable quality management system.

**You can contact ATIEL.**

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