

# API CK-4 & FA-4 Frequently Asked Questions

#### 1. Why the change from CJ-4 performance specification?

**A:** Driven by legislative changes, the world's diesel engine manufacturers must:

- Make their engines cleaner and more fuel efficient
- Meet emissions and fuel consumption targets, both on and offroad
- Use advanced engine oils to operate efficiently within the new engine designs

## 2. What are the differences between the new API diesel engine oil performance specifications?

A:

- CK-4 supersedes the previous performance specification CJ-4 and is fully backwards compatible for older engines.
- FA-4 has limited backwards compatibility with specific original equipment manufacturers (OEM).

### 3. When will OEMs require the use of CK-4 & FA-4 oils in their diesel engines?

A:

- OEM's will begin recommending the use of CK-4 oils in the manuals for new engines in the spring of 2017. CK-4 oils will be introduced first, as they are backwards compatible with the previous API CJ-4 specification.
- Initially only certain OEM's will be recommending the use of FA-4 oils, and demand will not be needed until late 2017.

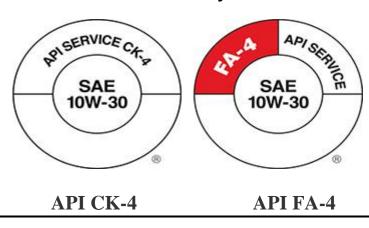


4. How do you distinguish the difference between CK-4 & FA-4 oils on the product labels and which specification is required for your diesel engine?

#### A:

- New features on the labels will help distinguish the difference between CK-4 and FA-4 oils. The American Petroleum Institute (API) seals will be consistent in communicating the proper information for CK-4 and FA-4 designations.
- To determine which specification you need to use in your diesel engine, it is recommended to check your owner's or operator's manual.

### **API Service Symbols**



5. What are the licensing and testing requirements for the new diesel engine oil formulations?

#### A:

• To meet the new specifications for CK-4 & FA-4 oils, Co-op's D-MO (Diesel Motor Oil) has been rigorously tested to ensure it not only meets the API requirements, but has undergone several OEM field and lab tests to be fully licensed and approved for use in several OEM engines.



### 6. Are CK-4 & FA-4 diesel engine oils suitable for use in engines manufactured prior to 2017?

#### **A:** *CK-4:*

• Designed for use in all diesel engines requiring legacy API specifications (i.e. CJ-4, CI-4, CI-4 +, etc.)

#### *FA-4:*

• Designed for use in 2017 and newer engines

\*NOTE: If you wish to use API FA-4 oil in older engines, than the engine OEM must be consulted prior to use for recommendation.

### 7. What are the features and benefits of the CK-4 & FA-4 diesel engine oils?

#### A:

- CK-4 oil has improved temperature performance capabilities, thermal and oxidative stability and added wear protection over the previous CJ-4 specification. In addition, CK-4 has excellent contamination and aeration control and shear stability.
- API FA-4 has the same features as CK-4, but is a lower viscosity grade that provides improved fuel economy.

### 8. Can CK-4 & FA-4 diesel engine oils be used in both on and offroad applications?

#### A:

- CK-4 engine oils can be used in both on and off-road applications, including fleet, construction, mining and agricultural applications.
- FA-4 oils have been designed specifically for newer on-road engines, starting with the 2017 model year.



9. What is Ford's stance and requirements regarding the CK-4 specification and why are they not recommending the use of all CK-4 formulations?

#### A:

- Ford has had concerns over the new CK-4 oils as they experienced premature valve wear during testing of their 6.7L diesel engines.
- They determined that certain CK-4 formulations that contained less than 1000ppm of phosphorus would not adequately protect their engines.
- To address this concern, Ford issued their own specification, WSS-W2C171-F1, which requires an oil to have between 1000-1200 ppm phosphorus in order to provide the necessary protection in their engines.
- Co-op D-MO® was one of the first CK-4 oils in North America to meet the stringent phosphorus level requirements with our CK-4 formulation and has achieved full licensing and approvals for use required by the new Ford specification.