



Product One Voice

Q&A

Product: AMSOIL Diesel Concentrate plus Cold Flow (DFC)

Product Area: Aftermarket/Additives

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1. Question:

Why did AMSOIL decide to reintroduce a combination Diesel Concentrate plus Cold Flow Improver (DFC) additive?

Answer:

AMSOIL responded to the need for convenience by providing a product that combined the properties of the Diesel Fuel Concentrate and the Cold Flow Improver in a single package.

2. Question:

What function does AMSOIL Diesel Concentrate plus Cold Flow Improver perform?

Answer:

This product combines all the benefits of both the AMSOIL Diesel Fuel Concentrate and the AMSOIL Cold Flow Improver. The diesel fuel concentrate portion of the product performs several important tasks, including keeping injectors, rings and piston crowns lubricated and free of soot buildup. It improves lubricity and minimizes wear throughout the fuel system. It also helps manage water, which enters fuel through condensation from the air inside fuel tanks and demulsifies fuel/water mixtures. The cold flow attributes reduce cold flow filter plugging point and diesel fuel pour point.

3. Question:

What are some key advantages for the AMSOIL Diesel Concentrate plus Cold Flow Improver?

Answer:

- a. Increases fuel economy up to 5%.
- b. Restores horsepower and throttle response to “like new” performance.
- c. Cleans injectors and combustion chambers.
- d. Provides superior fuel flow to help prevent filter plugging in cold temperatures.
- e. Reduces pour point of the fuel, making fuel flow to the engine easier.
- f. Improves diesel engine reliability in cold temperatures.
- g. Effective in a broad range of diesel fuels, including biodiesel and hard to treat USLD fuels.
- h. Minimizes the need for blending standard #2 diesel fuel with lower quality #1 diesel fuel during cold temperatures.
- i. Excellent for use with home heating oil and kerosene heat systems.
- j. Aids in the retention of the engine oil’s total base number (TBN).
- k. Extends fuel filter life.

4. Question:

What is Ultra Low Sulfur Diesel (USLD)?

Answer:

USLD is fuel which has been hydro-treated at the refinery to reduce sulfur to no more than 0.0015% by weight (15 PPM). It is a legal specification mandated for environmental reasons and is required for

all on-road diesel applications. It does, however, reduce the diesel fuel's natural lubricating properties.

5. Question:

Will DFC adequately treat federally regulated USLD?

Answer:

Yes. AMSOIL Diesel Concentrate plus Cold Flow was specifically designed and tested with ultra low sulfur diesel fuels. This fuel is different than traditional diesel fuel in several ways and is more difficult to properly treat. AMSOIL Diesel Concentrate plus Cold Flow also treats traditional high sulfur content diesel fuel.

6. Question:

Does AMSOIL DFC improve engine performance?

Answer:

By keeping injectors clean, AMSOIL Diesel Concentrate plus Cold Flow maintains the designed performance of the engine. If injectors become clogged, the spray pattern is affected and AMSOIL additives will clean the injectors to restore the original pattern and performance level.

7. Question:

What is the treat rate for Diesel Concentrate plus Cold Flow?

Answer:

The treat rate is 2 ounces of additive per 5 gallons of fuel or one 16 ounce bottle to 40 gallons of fuel. The bottle is natural in color and is graduated for accurate dispensing to ensure proper mixing ratios.

8. Question:

What should be done to adjust for the cold temperatures during the winter months?

Answer:

AMSOIL recommends purchasing diesel fuel that has been blended for winter use in that specific region, then adding AMSOIL Diesel Concentrate plus Cold Flow. This will ensure the engine or heating system will function on very cold days when needed most.

9. Question:

Should DFC be used in the diesel fuel to keep already gelled fuel from clogging the delivery system?

Answer:

No. As temperatures drop, the wax, which is naturally found in the fuel, begins to form crystals. This is called the cloud point. These wax crystals will eventually clog the fuel filter and starve the engine of fuel or prevent it from starting. AMSOIL Diesel Concentrate plus Cold Flow must be added to the fuel before it gets cold enough for the wax crystals to begin forming. AMSOIL Diesel Concentrate plus Cold Flow will not dissolve wax or improve diesel fuel once wax crystals form. Low quality fuels may form wax crystals in temperatures as warm as 40°F. AMSOIL recommends Diesel Concentrate plus Cold Flow be added to fuel when temperatures approach 32°F, which is above the cloud point of most diesel fuel.

10. Question:

What type of performance can be expected from the new AMSOIL Diesel Concentrate plus Cold Flow?

Answer:

AMSOIL Diesel Concentrate plus Cold Flow Improver inhibits wax crystal formation and can improve diesel fuel pour point. With the incorporation of DFC into ULSD, pour point decreased 31°F (17°C) and Cold Flow Filter Plugging Point (CFPP) was decreased by 36°F (20°C). Product performance depends on fuel type and quality.

11. Question:

Competitive products claim better cold temperature properties than AMSOIL DFC. Are these claims legitimate?

Answer:

AMSOIL Diesel Concentrate plus Cold Flow was tested against a leading diesel fuel cold flow improver as part the development. The AMSOIL product outperformed competitive products particularly with B20 biodiesel and ULSD. Competitor claims can be misleading. It is important to distinguish between cold filter plugging point (CFPP) and pour point. Many competitive products make great pour point claims, leading consumers to believe their products are superior, when in reality the CFPP is inferior. The CFPP depression temperature is more important because fuel will not make it to the engine if the fuel filter is clogged.

12. Question:

What about using #1 diesel fuel instead?

Answer:

AMSOIL Diesel Concentrate plus Cold Flow Improver minimizes the need for #1 diesel fuel in cold weather which reduces overall costs and lessens the impact from loss of lubricity with #1 diesel fuel. While #1 diesel fuel has an advantage in low temperature operability, there are several disadvantages as well. The energy content of #1 diesel fuel is about 95% that of #2 diesel fuel, resulting in reduced fuel economy and horsepower. #1 diesel fuel contains kerosene which provides less lubrication for the fuel pump and fuel distributor, increasing the chances of wear on these critical parts. In addition, #1 diesel fuel is more expensive.

13. Question:

What are the differences in diesel fuel, heating oil and kerosene?

Answer:

Diesel fuel, heating oil and kerosene are all products distilled from crude oil. While they are similar, there are some critical specification and legal differences in the products that prohibit them from being used interchangeably. Each fuel type was designed for different applications, so their properties differ. Combining these can lead to unwanted and sometimes costly or harmful effects.

Fuel type and applications:

Diesel fuel	Internal combustion engines (injection with compression ignition)
Heating oil	Oil burners/Furnace (injection with direct flame)
Kerosene	Lamps and non-vented heaters (wick burning)

Each of these fuels is designed for the environment/application in which it will be consumed. The properties that are good for their environment/application may not be good for other environments/applications and, in most cases, should not be mixed. Another key difference is the delivery and filtering system used in each environment/application. Using a low efficiency filter or allowing un-filtered fuel into a system that has a fine filtering system or fine mist injectors is not recommended. If employed, the system would clog; therefore, disassembly and reassembly would be required to clean the system. This could also cause damage to some parts of the structure.

AMSOIL DFC is specifically formulated for improving the lubricating fuel system components, improving the flow of the fuel, helping to maintain the integrity of the fuel, and preventing the clogging of the filter or injectors. Use it in any of the applications listed above for safe, reliable engine performance and home heating in all temperatures.

14. Question:

Does AMSOIL DFC meet the federal regulations for ULSD fuel?

Answer:

Yes. The statement found on the back label of AMSOIL DFC states, "This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and non-road engines."

EPA regulation for diesel fuel additives went into effect on June 1, 2006. This regulation requires that all diesel fuel additives sold after June 1, 2006 with a sulfur content not exceeding 15 ppm sold in containers for use by the ultimate consumer must have the following statement:

"This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and non-road engines." For more information consult:

<http://www.asplliance.org/dieselfuel/index.htm>

15. Question:

Will using Diesel Concentrate plus Cold Flow void engine warranties?

Answer:

The use of Diesel Concentrate plus Cold Flow will not void engine warranties and it is designed to help decrease engine fuel system wear from poor lubricity ULSD fuels.

16. Question:

Is there a cost advantage of using AMSOIL DFC alone versus adding AMSOIL Diesel Concentrate (ADF) and AMSOIL Cold Flow Improver (ACF)?

Answer:

Yes.

- To treat 80 gallons of fuel, two bottles of DFC (\$9.10 ea retail) are required, costing \$18.10.
- To treat 80 gallons of fuel with a combination ADF and ACF, it would require one bottle of ADF, (\$7.40 ea retail), plus two bottles of ACF (\$6.85 ea retail) costing \$21.10.
- The savings to treat 80 gallons of fuel using DCF is \$3.00.

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