



## **Surecraft Diesel Fuel Additives Questions and Answers**

### **1. Is a diesel fuel conditioner necessary and why?**

Yes. The need to use a diesel fuel conditioner is now more important than ever. Diesel fuel quality can vary dramatically in different sources and even at different times of the day. Inconsistent fuel quality can result in customer dissatisfaction over equipment life and performance. In addition, most diesel fuels (regular or premium) are not designed for use in off-road equipment. Finning Sure-Craft fuel additives are strong enough to bring most any diesel fuel up to acceptable standards and will allow for optimum performance in any diesel engine. Therefore, it is recommended that Finning Sure-Craft fuel additives be used throughout the year.

### **2. There are many brands of fuel conditioners available over-the-counter as well as through co-ops and fuel distributors. Why is it strongly recommended that I use Finning Sure-Craft fuel additives?**

Finning Sure-Craft has significantly more at stake than simply selling fuel additive. Finning Sure-Craft is in the business of providing customers with good equipment that performs as promised. It is a fact that diesel equipment runs better and lasts longer when quality diesel fuels are used.

They are a proprietary blend of fuel additives that are capable of improving most any diesel fuel. This is not the case for other fuel conditioners available over the counter or through a local fuel

supplier such as a co-op. Test data shows that many commercially available additives are either non-functional or incomplete in their respective formulation. In addition, fuel additives offered by local fuel suppliers and even major oil companies are usually purchased on bit by buyers who understand additive price more than they understand additive performance and quality. Therefore, performance is often secondary for such products. This often leads to customer dissatisfaction. It is recommended that Finning Sure-Craft products be used in all diesel fuel working in any application.

### **3. What benefits will I get with Finning Sure-Craft DMAX Plus and DMAX Winter?**

*Both the year-round and winter versions have the following benefits:*

- Exclusive formula only available through Finning Sure-Craft
- Detergency – Cummins L-10 superior rating ensures clean injectors and better fuel economy.
- Modern lubricity technology – superior performance over a wide range of fuels
- Increased Cetane number for better start-ups, increased power and fuel economy
- Erosion/Corrosion protection for vehicle fuel systems as well as bulk storage tanks
- Stability protection for reduced sediment and filter plugging and maximum filter life
- Regular use inhibits the growth of fuel bacteria

*In addition, the winter version also offers:*

- Superior cold flow properties to prevent fuel gelling and filter plugging
- Non-alcohol based deicer to inhibit fuel and filter icing

### **4. Why are Finning Sure-Craft products recommended for use in old and new diesel equipment?**

Finning Sure-Craft products improve the diesel fuel itself which makes any engine run better and last longer. New engines will enjoy these benefits right from the start. Older engines will run better after the first few fill ups. Finning Sure-Craft DMAX Plus and DMAX Winter can be used in any diesel-powered equipment, on or off the farm. In fact, other diesel engine manufacturers recommend Finning Sure-Craft products to their customers for optimum operation and preventative maintenance.

### **5. Why was a year-round and winter formula introduced?**

The year-round formula offers the same important features as the winter formula without the costly winterization components. The product is more cost-effective this way. In addition, many customers are not concerned about winter weather, but their equipment will still benefit greatly from regular use of Finning Sure-Craft products.

#### **6. Can Finning Sure-Craft DMAX Plus and DMAX Winter be added to my bulk fuel storage tank?**

Yes, and it should be. Treating fuel as it is added to the bulk fuel storage tank will ensure that the product is mixed properly. As an added benefit, the conditioner contains a fuel stabilizer and corrosion inhibitor that should be added to any new fuel deliveries to maximize fuel storage, filter life, and to protect your bulk fuel storage tank corrosion.

#### **7. Why does the winter formula have to be added when the fuel is warm?**

Diesel fuel contains wax that begins to form crystals at the cloud point of fuel. These crystals are very large and will continue to grow until the equipment ceases to operate (gelled filter). The winter formula contains a “wax crystal modifier,” or anti-gel, which allows the wax crystals to form, but changes the shape and size of the wax crystals as they form. Smaller sized crystals allow the filter to function at lower temperatures without shutting down. The only way to change the crystal shape is to add the winter formula at a temperature when the crystals begin to form. This is why the conditioner must be added when the fuel temperature is above the cloud point of the fuel. Generally, winter diesel fuel cloud points are about +10° Fahrenheit. Finning Sure-Craft recommends adding DMAX Winter before fuel temperature reaches about +25° Fahrenheit.

#### **8. Why does DMAX Winter, the winter formula, gel in the bottle when it gets cold?**

All fuel additives that contain large amounts of “anti-gel” will freeze in their concentrated form (prior to mixing with diesel fuel). Fuel additives that do not freeze contain few or no anti-gel components.

This is similar to antifreeze/coolant that is put into radiators. Undiluted antifreeze actually freezes at about 30° Fahrenheit. It needs water to lower the freezing point and to work at low temperatures. DMAX Winter contains a large amount of anti-gel. Once added to the diesel fuel, it will outperform most competitive products. To prevent gelling of DMAX Winter, store the bottle at or above 50° Fahrenheit. If the product has gelled in the bottle, allow it to thaw, and then add it to the diesel fuel. The product is still effective after thawing. It is crucial, however, that it be added at a high enough fuel temperature to work properly. See question 7 for more information.

#### **9. If DMAX Winter is used, to what temperature is the fuel protected against gelling?**

The winter formula has been sold for many years now throughout the U.S. and Canada. In this wide range of fuels, the winter formula typically protects down to -15° to -20° Fahrenheit. This range will vary with some fuels, even when purchased from the same supplier. We recommend the addition of 20% No. 1 Diesel or Kerosene as the ambient temperature approaches -15° to -20° Fahrenheit. Larger amounts of No. 1 fuel may be necessary if you are forced to operate in even lower temperatures. Winter performs consistently better over a wide range of fuels when compared to other fuel additives.

**10. What is the Scuffing BOCLE, and why is it important?**

The Scuffing BOCLE is a proposed industry test used to evaluate the lubricity of distillate fuels. Lubricity is an indication of a fuel's ability to protect fuel pumps and injectors from wear and tear. Diesel fuels treated with Finning Sure-Craft fuel additives have been, and continue to be, regularly evaluated on this demanding test. Finning Sure-Craft products have consistently performed at or above the levels set by engine and pump manufacturers. This, in turn, extends the life of fuel injectors and fuel pumps. In addition, this allows for more precise "fuel control" throughout the life of equipment, which results in better fuel economy and lower emissions.

**11. Does low sulfur diesel fuel affect filter life?**

Yes. Low sulfur diesel fuels have less tolerance for fuel sediment. However, Finning Sure-Craft DMAX Plus and DMAX Winter contain special components to control sludge and sediment formation, thereby extending filter life.

**12. Does low sulfur diesel provide less power than high sulfur diesel?**

This has been reported, but has not been evidenced. Finning Sure-Craft products contain a highly effective detergent and Cetane improver to keep fuel injectors clean, providing maximum power and fuel efficiency in every gallon.

**13. What is the most important performance property of a premium diesel?**

Every aspect of the fuel is important if it is relevant to the concerns of its user. That is why Finning Sure-Craft products are designed to offer the best combinations of all performance properties while remaining worthy of every fuel dollar.

**14. Are Finning Sure-Craft products as effective in on-road equipment as they are in off-road equipment?**

Yes. Finning Sure-Craft products offer performance benefits to both on-road and off-road users.

**15. Our products are compliant!**

This statement is to confirm that all Finning Sure-Craft and DMAX Plus and DMAX Winter fuel additives are 100% ash-free and will not violate any warranties or harm diesel engines, diesel fuel injection systems and other related equipment. The aforementioned encompasses all diesel engine manufacturers' products. Further, all Finning Sure-Craft DMAX Plus and DMAX Winter products comply with all federal regulations for ultra low sulfur content and can be used on all pre-2006 and new post 2006 diesel engines with and without particulate filters and DEF systems.

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**For ordering contact:**

Your local Finning Sure-Craft dealer.