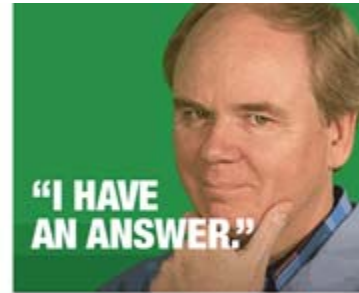


# THANK YOU FOR SUBMITTING YOUR QUESTION...



A Cargill Deicing Technology Product

## Your question:

Have used ClearLane® enhanced deicer in the past but have switched to Magic Salt. Can you articulate the advantage of ClearLane® enhanced deicer over Magic Salt?

## My answer:

As you know, there are a number of different treated salt products to choose from. In general, the available products are standard deicing rock salt treated with a corrosion inhibited magnesium chloride liquid to enhance performance by helping to stick the salt to the road surface, reduce equipment corrosion, help keep the salt free-flowing, and enhance ice melting action at lower temperatures. Ultimately, the proof of the pudding for any deicer is how it performs under actual field conditions, so I encourage you to determine from your own experience which products perform best for you, but I can give you some general information on how ClearLane® enhanced deicer is formulated and why we believe it is a superior product.

First, consider corrosion inhibition. Over the years, the industry has developed specifications for treated salt products, and nowadays the pre-wetting liquids used are typically formulated to meet these specifications, including a requirement that the liquid be at least 70% less corrosive than plain salt in the PNS corrosion test. Thus, I think you will find that most of the treated salt products available will have similar corrosion inhibiting characteristics because they are typically formulated to meet this standard specification. Different products use different corrosion inhibitors to achieve this goal.

Many products use various agricultural byproduct type additives, which function as corrosion inhibitors. ClearLane® enhanced deicer does not use a typical "agricultural byproduct" additive, but rather uses a unique chemical called gluconate as the corrosion inhibitor. Gluconate is a derivative of glucose (simple sugar) made by the fermentation of corn. By converting glucose to gluconate, the corrosion inhibition power is greatly increased such that we only need a few tenths of a percent corrosion inhibitor to meet the standard corrosion specifications. This in turn allows us to formulate with a lower concentration of corrosion inhibitor than if we were using an agricultural byproduct, which reduces the environmental impact due to BOD and minimizes the dilution of the magnesium chloride (which is the main active ingredient).

Our tests indicate that the higher the concentration of magnesium chloride present in the pre-wetting liquid, the faster the pre-wetted salt will melt ice at colder temperatures. ClearLane® enhanced deicer is PNS (Pacific Northwest Snowfighters) approved/certified and deemed a Safer Choice product by the U.S. EPA. This designation deems products safer for the environment than others in their same class. To my knowledge it is the only treated salt product to have such designation. Finally, our product includes a unique, patented additive that increases the viscosity of our pre-wetting liquid, making it much thicker than with a typical agricultural additive, and this is very effective in keeping the liquid on the salt and preventing leaching.

ClearLane® enhanced deicer is pre-blended using a patented blending system. This assures a much higher quality product than many others, and especially those that are mixed via spraying on a pile and working it over with a front-end loader. We are continually doing further product testing and development, seeking to better understand the chemistry of deicers and optimize formulas. We present our learnings fairly regularly through the APWA and Transportation Research Board, so please stay tuned! We hope to have even more information for you soon!

**Providing customers with deicing solutions that save lives, enhance commerce and reduce environmental impact.**