

Thawrox

Vendor: North American Salt Co.

Temp Range: -20

Active ingredient: 26% Magnesium chloride with a molasses based corrosion inhibitor.

Salt Brine Compatible: NA

Suggested Rate: (Vendor) 20-50% less than white salt

Suggested Use: (Vendor) De-icing Chemical

Mixing Guidelines: This product is a pretreated salt used primarily in cold weather situations. Can be used in warmer temps at a reduced rate, and can be mixed with sand in some cases.

Operator Feedback: Thawrox has been used in almost all areas of the state with good results. The working temperature is considerably lower than white salt alone. Thawrox can be used in very cold temps without a pre-wet solution, because of its “sticky” properties. Thawrox holds to the road better than white salt and keeps the road wet longer.

Suggested Rates: (Mn/DOT) Depends on conditions, but generally 20-30% less than regular applications of salt.

Conclusions: Whereas salt is an effective snow-and-ice control tool, its limited to temperatures of 15 degrees or less to be very effective. Thawrox can be effective down to -20 degrees. It is a good choice for conditions that can no longer be effectively handled with white salt alone. This product also stays pliable in cold weather storage so it can be used without problems when the temps drop below zero.

Ice Ban

Vendor: Scotwood Industries, Inc. - liquid

Temp Range: -20

Active Ingredients: 28% Magnesium Chloride and a corn based organic modifier

Salt Brine Compatible: N

Suggested Rates: (Vendor) Anti-icing 15-30 gal/LM Stockpile treatment, 6gal/Ton (20-30% reduction in rates)

Suggested Use: (Vendor) Stockpile treatment, pre-wetting, anti icing, or deicing

Mixing Guidelines: Not to be mixed with salt brine. Stockpile treatment 6 gallons per ton.

Operator Feedback: Product to new

Suggested Rates: (Mn/DOT) As a stockpile treated salt rates should be 20-30% less than regular salt. Anti-icing guidelines would be from 15-30 gal/LM or as conditions would permit. Pre-wet would be 10 gallons/ton at the spinner or in the sander, depending on conditions.

Conclusions: Ice ban is an effective anti-icing agent as well as an effective stockpile treatment and is very versatile. The only drawback, it's not recommended to mix with salt brine. Mixing with salt brine can cause crystallization in the tank and create problems. Ice ban has Magnesium chloride as an active ingredient and a corn based organic modifier for less corrosiveness and will give it a “sticky” consistency to reduce scatter and bounce and provide a longer residual effect when used as an anti-icing liquid. It also keeps the stockpiles free flowing and ready to apply in below zero temps.

Geomelt

Supplier: SNI Solutions

Temp Range: -10

Active Ingredient: Organic solution containing 55% solids from sugar beets which enhances the melting of any chloride.

Salt Brine Compatible: Y

Suggested Rate: (Vendor) Depends on application use

Suggested Use: (Vendor) Anti-icing, pre-wetting, deicing, and stockpile treatment (30% less salt used if stockpile treated)

Mixing Guidelines: This product has a broad spectrum of uses, it can be used for pre-wetting or anti icing in a variety of concentrations, and as stockpile treatment in a range from 5-6 gallons/ton. Keep in mind the higher gallon per ton the more likely leaching will occur.

Operator Feedback: There is no operator feedback at this time. Mn/DOT is not currently using this product.

Suggested Rates: (Mn/DOT) Pre-wet 10 gallons/ton, anti icing will depend on blend, stockpile treatment; 5 gallons/ ton

Conclusions: Geomelt can be used in a variety of ways including pre-wetting, anti-icing and as a stockpile treatment. It can be mixed with any of the chloride's that we have available. It is a 55% organic product, brown in color, and has a “sticky” property to promote less scatter.

Road Guard Plus +8

Vendor: Tiger Calcium Services Inc.

Temp Range: -20 to -49F

Salt Brine Compatible: Y

Active ingredient: 26.5% Calcium chloride, 8% Molasses corrosion inhibitor, and 85% less corrosive than rock salt.

Suggested Rate: (Vendor) Depends on application use

Suggested Use: (Vendor) Liquid de-icing, anti-icing, pre-wetting and stockpile treatment

Mixing Guidelines: Used as a pre-wet or anti-icer in a variety of concentrations, stockpile treatment from 3-8 gallons/ton.

Operator Feedback: Many operators find it to be very effective as a pre-wet at concentrations ranging from 80-20 to straight product. Pre-treating stockpiles is also effective, it holds the salt to the road better, works faster, and a longer effectiveness. Anti-icing is also effective as a straight concentration or mixed with salt brine.

Suggested Rates: (Mn/DOT) As an anti-icer/deicer, the product is typically applied at rates 15-30 gallons/mile. As a pre-wet agent, Road Guard Plus +8 stockpile treatment is typically applied at rates of 5-8 gallons/ton of salt or sand.

Conclusions: Road Guard Plus +8 is effective on any anti-icing or deicing operation. It has the ability to mix with salt brine to enhance it any temperature range, and used straight or as a pre-wet to enhance the effectiveness. Also, can be used as a stockpile treatment to help keep the salt on the road and add to the effectiveness of salt. It is very versatile which makes it a popular chemical for many situations.