

Ice Bite® Sugar Beet-based Anti-icing / De-icing Fluid

Ice Bite® anti-icing fluid is an all-natural agricultural product derived from renewable resources and features versatile ice control performance. When mixed with traditional brines, Ice Bite® not only lowers the freezing point of the brines but also reduces salt induced corrosion. When used to treat rock salt, Ice Bite® can reduce salt requirements by 30%. Ice Bite® passes the strict laboratory requirements of the Pacific Northwest Snowfighters.

Typical Properties

Appearance.....	Brown
Dry Solids.....	55%
Specific Gravity.....	1.275 (10.6 pounds per gallon/1.275 kg per liter)
Freezing Point.....	-31°F (-35°C)
pH.....	7.4
Water Miscibility.....	Complete

Applications

Ice Bite® anti-icing fluid used as-is, provides excellent freeze protection for salt and bulk material stockpiles. Ice Bite®, mixed with salt solutions is highly effective for anti-icing, de-icing, and pre-wetting. All suggested usage levels should be considered as starting points and should be adjusted as needed based on operator experience to meet local conditions such as current and forecasted road and air temperatures, precipitation, traffic volume, etc.

Anti-icing - Application

- Blend Ice Bite® 1 to 1 with your preferred salt brine, and mix thoroughly.
- Apply initially at 30 gallons per lane mile (71 liters per kilometer).
- Adjust the amount as needed to meet local conditions.
- Apply Ice Bite® when the pavement temperature is expected to drop to 32°F (zero°C) or below, preferably just before precipitation begins.

Benefits

- Ice Bite® prevents ice and snow from bonding to the pavement, making ice and snow removal easier.
- Lowers maintenance costs by reducing the number of applications and quantities needed.
- No dust-causing abrasives needed.
- Reduces salt brine corrosion.
- Lowers the blend's freezing point to -26°F (-32°C).

Deicing - Application

- Blend Ice Bite® 1 to 1 with your preferred salt brine, and mix thoroughly.
- Apply initially at 40 gallons per lane mile (94 liters per kilometer) depending upon the accumulation, adjusting the amount as needed to meet local conditions.
- Apply using stream nozzles.
- Allow to penetrate the accumulation then apply as usual.

Benefits

- Ice Bite® eats through hardpack when spread along the pavement.
- Breaks the bond between the ice, snow and the roadway, making ice and snow removal easier.
- No dust-causing abrasives needed.

Prewetting - Application

- Use Ice Bite® as-is or blend with your preferred salt brine.
- Apply at 5 to 10 gallons per ton of salt or salt/sand mixtures, (21 to 42 liters per metric ton) at the spinner.
- Adjust the amount as needed to meet local conditions.

Ice Bite

**Anti-icing,
De-icing liquids
made from Sugar
Beet by-products**



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Prewetting - Benefits

- Ice Bite® enhances the de-icing performance of dry salt or salt / sand mixtures.
- Jump-starts the de-icing process.
- Reduces bounce and scatter losses during application from 30% down to only 4% loss. Pre-wetted salt and salt / sand mixtures stay on the road.
- Use less salt / sand mixtures and achieve the same effectiveness.

Salt Stockpile Treatment – Application

- Use Ice Bite® as-is. Do not dilute with salt brine or water.
- Apply at 5 to 6 gallons per ton of salt (21 to 25 liters per metric ton.)
- Use a continuous mixer or blend directly into the stockpile.

Benefits

- Ice Bite® keeps the stockpile free flowing, prevents freezing, crusting or chunking.
- Reduces the corrosive property and enhances the ice melting capacity of salt.
- Reduces bounce and scatter losses during application from 30% down to only 4% loss. Pre-wetted salt stays on the road.
- Less salt is needed for the same de-icing effectiveness.

Bulk Material Freeze Proofing (See freeze Proofing Tech Bulletin) - Application

- Use Ice Bite® as-is. Do not dilute with salt brine or water.
- Apply 2 to 4 pints per ton (1 to 2 liters per metric ton) by overhead spray to pea gravel, aggregates, coal, glass, or other bulk materials during storage or before shipment.

Benefits

- Ice Bite® is safe to use with most materials.
- Keeps materials free flowing, prevents freezing or chunking during transfers and shipment.
- Reduces for corrosive properties of treated materials.

Ice Bite Performance & Specifications

Ice Bite® whether used as-is, or mixed with salt brines provides superior anti-icing and de-icing performance. Whether mixed with brine or not, Ice Bite® is compatible with all existing brine storage tanks and spray equipment. Ice Bite® works at temperatures where salt brines alone are no longer effective. Performance superior to salt brines is achieved while using *less* Ice Bite anti-icing fluid. *Fewer gallons of Ice Bite® yield the same performance as salt brines alone.* That means more lane miles per truckload, improved efficiency and less equipment corrosion.

Freezing Point Depression

Ice Bite® anti-icing fluid not only offers performance superior to salt brine, its superior anti-icing performance remains even after subsequent precipitation dilutes the product. Example: even after diluting to 72% of its original strength (a 1 to 1 salt brine blend) Ice Bite® still performs better than freshly applied full-strength salt brine.

Corrosion

Test results from an independent lab approved by the Pacific Northwest Snow fighters show Ice Bite® is only one fourth as corrosive as salt. In fact, Ice Bite® with common anti-icing / de-icing salts will help reduce your equipment corrosion. Make Ice Bite® an effective part of your corrosion control programs.

Storage

Ice Bite® is stable during storage, summer or winter. Unlike some other organic anti-icing products, Ice Bite® will not solidify during the winter nor spoil during the summer. For best results, recycle storage tanks every 2-3 weeks.

Viscosity

Ice Bite® is more viscous than salt brine at all temperatures making it especially suited for anti-icing applications where roadway runoff is a problem. Yet, Ice Bite® is still fluid enough to flow readily through your application equipment. The viscosity advantage helps to hold it on the roadway; and that provides a residual anti-icing effect. It's like putting a barrier between the road and the precipitation.

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