

Enviro-Mlt™: Technical Information

Anti-Icing
Agent

DESCRIPTION



Enviro-Mlt is a multi-component potassium acetate based liquid belt deicer and anti-icing agent. It eliminates coal and material handling problems caused by ice glazing and fines build-up on conveyor belts. Enviro-Mlt offers advanced ice melting performance without compromising anti-icing properties.

APPLICATIONS



Enviro-Mlt can be sprayed on top of the conveyor belt to prevent ice glaze, or if ice glaze is present it will melt the ice upon application. Application of Enviro-Mlt to tail pulleys, the bottom cover, or trough idlers can prevent ice build-up caused by precipitation or moisture from the coal. Enviro-Mlt should be applied prior to shut-down to prevent ice formation. Application at start-up or during operation can speed removal of ice and prevent further accumulation.

PHYSICAL PROPERTIES



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|--------------------------------|--|
| Specific Gravity: | 1.25 – 1.27 Kg/L |
| Weight per Gallon (US): | 10.41 – 10.58 lbs./gal |
| Appearance: | Clear to slightly tinted liquid |
| Odor: | Slight odor |
| pH: | 10 - 11 |
| Freezing Point: | < -71°F |
| Solubility in Water: | Complete |
| OSHA Hazard: | No |
| Flammability: | Non-flammable, non-combustible |
| Stability: | Stable under normal handling conditions |
| Corrosiveness: | Avoid contact with galvanized metal, brass or zinc containing metal alloys, aluminum or cast iron. Carbon steel or alloys are okay if clean and rust-free. Stainless steel, coated or painted surfaces are best. |
| Incompatibilities: | Strong oxidizing materials and inorganic salts (calcium chloride, magnesium chloride, sodium chloride etc.) |

Enviro-Mlt™: Application Information

Anti-Icing
and
De-Icing
Agent

PRODUCT DESCRIPTION Developed to serve as both an anti-icer and a de-icer, Enviro-Mlt has a place in every market including: utilities, railroads, the iron and steel industry, mining and mass transit. Enviro-Mlt has a freezing point below -50°F, is safe and ready to use and will not trigger any environmental reporting requirements.

APPLICATION RECOMMENDATIONS Enviro-Mlt is equally effective in melting ice as it is in preventing the formation of ice. For this reason Enviro-Mlt can be used many different ways for roadway and pedestrian area anti-icing and de-icing.

ANTI-ICING AGENT Enviro-Mlt can be sprayed on pavement before a precipitation event to prevent the formation of ice. Enviro-Mlt acts as a barrier between the pavement and the falling ice and snow. This allows for easy mechanical removal of snow and ice by preventing the bonding of ice and snow packing to the surface.

Enviro-Mlt is most effective when applied uniformly to pavement before the precipitation occurs. The typical starting application rate is 0.5 gallons/1000 ft². Mechanical removal of snow and ice is necessary to reduce the dilution of Enviro-Mlt. Periodic reapplication may be necessary if snow and ice begin to bind to the surface.

DE-ICING AGENT Enviro-Mlt acts effectively as a de-icer. Liquid de-icers work best if applied in narrow bands (4-6 inches). The banding application minimizes the effects of product dilution, this enables Enviro-Mlt to penetrate the surface of the ice or snow pack and allow for easier mechanical removal.

On thin ice at temperatures near 32°F, Enviro-Mlt should be applied in a banded pattern at a rate of 1.0 gal/1000 ft². On thicker ice, Enviro-Mlt should be applied at a rate of 3.0 gal/1000 ft².

PRE-WETTING AGENT Enviro-Mlt is an effective pre-wetting agent for road salt, sand and other solid de-icing materials. Enviro-Mlt will not clog applicator bars because it maintains a very low freezing point. Enviro-Mlt significantly improves the performance of any solid de-icing materials. The wetted material will stick to the surface instead of bouncing or rolling off the surface.

Enviro-Mlt is applied at the spreader outlet for pre-wetting. Rates are 5% to 15% by weight of solid material. A typical 10% application would be 1.25 gallons per 100 pounds of sand, salt or solid de-icer.

Enviro-Mlt™: Frequently Asked Questions

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What is Enviro-Mlt?

Enviro-Mlt is a potassium-based agent that will melt ice on contact. It is a very thin fluid that is easily sprayed, poured or brushed onto the surface.

How does it work?

Enviro-Mlt interrupts the crystalline structure the moisture and depresses the freezing point to melt falling, blowing snow and cause freezing rain to form a slush instead of solid ice.

How long with it last?

Its longevity will be dependent on weather conditions and whether snowfall is dry or wet. Visual inspection is the best method to determine reapplication.

How much does Enviro-Mlt cost?

A Midwest Sales Representative can give you the current pricing and availability by calling 1-800-321-0699 x 125 or email custserv@midwestind.com.

How much Enviro-Mlt do you have to use?

There are many types of applications and conditions that Enviro-Mlt can be used. From pre-wetting at 0.5 gal/1000 ft² to heavy de-icing at 3.0 gal/1000 ft². See Application Sheet for more precise application rates.

Is it corrosive?

It can be corrosive but is less aggressive than typical salt solutions or pellets.

How do you apply Enviro-Mlt?

Depending on the type of application, Enviro-Mlt can be applied several ways. Hand sprayed on sidewalks, steps, gratings; truck sprayed on parking lots, roads, driveways; and for conveyor belt application Midwest recommends installing our Cobra™ Winter Spray Systems. They are low pressure systems that utilize special spray header design and placement to prevent any of the product from becoming airborne.

Is Enviro-Mlt biodegradable?

Yes, Enviro-Mlt is biodegradable.

Is Enviro-Mlt Flammable?

No, Enviro-Mlt is non-flammable.

Is it conductive?

Yes, because de-icing agents are high in electrolytes, it will be conductive.

Is it safe for concrete?

Yes, providing the concrete is aged a year or more, however as with all de-icers, overuse could cause spalling of the surface.

What is the shelf life of Enviro-Mlt?

As a company policy we normally recommend using the product within a year, but this product will not separate or settle and would be fine beyond the one year recommendation so it could be used from a previous winter.

Where has Enviro-Mlt been used?

Enviro-Mlt has been applied to many surfaces such as sidewalks, catwalks, steps, bus stops, door tracks, etc., along with driving surfaces and conveyor belts.

What is the freezing point of Enviro-Mlt?

Enviro-Mlt has a much lower working temperature (-50°F) than salts, chlorides and magnesium.

Will it harm skin?

Enviro-Mlt is not harmful but may be an irritant so gloves should be worn when using. Skin should be washed with war soap and water if affected.

How is Enviro-Mlt packaged?

Enviro-Mlt is available in 5-gallon plastic pails, 55-gallon plastic drums, 275-gallon steel-caged plastic totes and in Midwest bulk truckloads of 1,000 gallons and up.