



EX-PROTECT

CLASSIFICATION: Potassium Acetate Liquid Protectant

DESCRIPTION:

Ex-Protect was developed to de-ice and prevent ice buildup on road surfaces and mechanical equipment. Providing a protective layer that remains effective for extended periods of time. As a environmentally safe alternative to chloride based products, Ex-Protect is guaranteed to protect your environment, while providing a powerful solution you can rely on. Ex-Protect increases in viscosity in extreme cold temperatures, improving its ability to stick-in-place.

FEATURES & BENEFITS:

- Proprietary corrosion inhibitor package to protect copper, brass, aluminum, zinc and other metals and alloys.
 - Non-flammable, no flash at 100°C.
 - Environmentally safe and effective alternative to chlorides.
 - Zero friction loss.
 - Meets the latest edition of the Society of Automotive Engineering (SAE) Aerospace Material Specification (AMS) 1435D.
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PHYSICAL CHARACTERICS:

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| • Appearance - Clear or blue liquid | • Water Miscibility - Complete |
| • Odor - mild, characteristic | • Freezing point - -58°C |
| • pH - 9.5 - 10.5 | • Effective to - -32°C |
| • Specific Gravity (@ 20°C) - 1.27-1.30 | • BOD (5 day), g O ₂ /g of fluid - 0.25 |
| | • COD, g O ₂ /g of fluid - 0.35 |
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PACKAGE SIZES:

- Bulk
 - 1000L IBC Tote
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EX-PROTECT

Temperature °C	Viscosity cPs (centipoise)
20	6.0
10	7.0
0	12.5
-10	21.1
-20	39.1

USE INSTRUCTIONS:

Ex-Protect may be used as an anti-icer or as a de-icer. It is ready to use and requires no dilution, mixing or heating.

Local conditions such as ground and air temperatures, the frequency and intensity of precipitation (freezing rain, sleet, snow, rain or a mixture), humidity, and surface materials and application equipment will have significant effect on fluid and/or de-icer requirements. Liquid properties including viscosity, specific gravity and surface tension as well as temperature will influence nozzle selection and spray pressure.

ANTI-ICING

The most efficient use of Ex-Protect is as an anti-icer. Pre-treat the pavement uniformly before the onset of precipitation to help prevent the adhesion of ice and snow and ease mechanical removal.

For the best anti-icer performance, loose snow should be mechanically removed prior to applying Ex-Protect liquid runway de-icer.

SUGGESTED MINIMUM APPLICATION RATE:

2.0 L/100m²

DE-ICING

When using Ex-Protect as a de-icer it is best applied in bands using high diffusion nozzles. This allows the fluid to penetrate the ice to break the bond with the surface to ease mechanical removal.

SUGGESTED MINIMUM APPLICATION RATE:

4.0 L/100m² for thin ice and increase depending on the thickness of the accumulation - approximately 12.0 L/100m² for ice up to an inch thick.

PRE-WETTING SOLID

Ex-Protect improves the effectiveness of solid de-icers and sand.

Ex-Protect can be sprayed directly on sand or solid de-icer or on the pavement when spreading.

SUGGESTED MINIMUM APPLICATION RATE:

The estimated application rate range is 5% to 15% by weight of solid material. This is approximately 10.43 L of Ex-Protect per 100 kg of sand or solid de-icer.