

SPC 3000

Non-Chloride Liquid Deicer

SPC-3000 is an ideal alternative for use on roadways and bridge decks, as well as sensitive landscape areas, parks, trails, sidewalks, storefronts, and residential use.

SPC-3000 is safe enough to use on plants as well as agricultural vegetation and is non-corrosive to all common metals. The unique features and benefits of SPC-3000 make it an ideal alternative to traditional chloride salt deicing chemicals in those applications in which corrosion or environmental damage is a concern.

SPC-3000 is composed primarily of materials derived from the processing of starches and sugars making it economical and readily available. It is nontoxic and non-hazardous to plant and animal life, and in the environment SPC-3000 biodegrades readily and completely to carbon dioxide and water. It has a low Biological Oxygen Demand (BOD) and contains no phosphates or urea that tend to promote eutrophication of natural waterways that may lead to fish-kills.

Unlike conventional deicers, SPC-3000 contains no harmful chloride salts. In many applications salt has been found to substantially increase the rate of corrosion of steel reinforcing and structural members. These applications include such highway elements as bridges, overpasses and highway ramps. Salt runoff is harmful to vegetation – both ornamental and agricultural and in certain areas salt runoff leads to unacceptable salinity levels in lakes and rivers.

SPC-3000 may be used both as a deicing agent to melt ice deposits and aid in their removal, and as an anti-icing agent to prevent the frozen precipitation from accumulating on roadway or walkway surfaces. Timely application of anti-icing agent eliminates or substantially reduces formation of “black ice”. It also prevents bonding of snow to road surfaces enabling snowplows to clean to the surface without leaving a packed layer.

SPC-3000 is manufactured in a quality-controlled environment to ensure those product features and performance characteristics are consistently of the highest quality.

SynTech Products Corporation; We manufacture solutions!
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Typical Corrosion Performance:

The Pacific Northwest States DOT coalition has adopted a test based on a modified version of NACE TM-01-69 to measure and rank deicing chemicals in terms of relative corrosion toward ferrous metals. In this test distilled water and salt are assigned relative corrosion rates of 0 and 100 respectively and deicing chemicals are ranked relative to these two standards. To be considered for use in the PNS states, a deicer must score 30 or less (70% less corrosive than salt) on this scale. In this test *SPC-3000* was found to be less corrosive than distilled water.

Metal Corrosion Tendency

Deicing Fluid	Corrosion Rate
Distilled Water	0
Rock Salt (NaCl)	100
Calcium Chloride (CaCl ₂) 38%	121
Calcium Chloride (CaCl ₂) 30%	86
Magnesium Chloride (MgCl ₂) 30%	80
SPC-3000	-3

Total Immersion Corrosion ASTM F483

Test Metal Coupon	SAE AMS 1424 Requirements Wt.Loss,mg/cm ² /2h	<i>SPC-3000</i> Results
Carbon Steel	0.8 max.	<0.01
Titanium	0.1 max.	<0.01
Aluminum 2024 Anodized	0.3 max.	<0.01
Aluminum 2024 Alclad	0.3 max.	<0.01
Aluminum 7075 Alclad	0.3 max.	<0.01
Copper	Not Established	<0.01

Typical Performance Properties:

In order to be truly effective, an anti-icing/deicing fluid must not only exhibit low freezing point, it must have the capacity to absorb large amounts of water from melting ice and continue to function at high dilution.

SPC-3000 provides both of these important attributes, having a freezing point of -36°F (-38°C) and high dilution capacity.

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Environmental Performance:

SynTech Products prides itself on offering the most complete line of high performance deicers on the market. We also realize that we have a responsibility for protecting the environment. SPC -3000 exceeds the stringent environmental specifications set by the PNS.

Typical Analysis

Appearance	Clear Blue Green
Odor	Mild
Specific Gravity	1.27
Pounds Per Gallon	10.75
Flash Point, COC	None
Water Miscibility	Complete
Freezing Point	-36°F
Biological Oxygen Demand	120,000ppm
Chemical Oxygen Demand	260,000ppm

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	SPC-3000	Specifications
Arsenic	< 1	5.00 ppm Max.
Barium	<0.02	10.00 ppm Max.
Cadmium	< 0.05	0.20 ppm Max.
Chromium	< 0.2	0.50 ppm Max.
Copper	< 0.2	0.20 ppm Max.
Cyanide	0.15	0.20 ppm Max.
Lead	<0.5	1.00 ppm Max.
Mercury	< 0.005	0.05 ppm Max.
Selenium	< 0.1	5.00 ppm Max.
Zinc	0.81	10.00 ppm Max.
Phosphates	1.1	25.00 ppm Max.

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