



Product Specifications for Ice B'Gone II HF

Heavy Metal Analyses

		<u>PNS ppm maximum</u>
Arsenic	Less than 2 ppm	5.00
Barium	Less than 1 ppm	10.00
Cadmium	Less than 0.2 ppm	0.20
Calcium	Less than 200 ppm	N/A
Chromium	Less than 0.5 ppm	1.00
Copper	Less than 0.1 ppm	1.00
Lead	Less than 1.0 ppm	1.00
Magnesium	63,000 ppm	N/A
Mercury	Less than 0.05 ppm	0.05
Selenium	Less than 5.0 ppm	5.00
Zinc	Less than 2.0 ppm	10.00
Phosphorus	Less than 5.0 ppm	2500
Potassium	Less than 1000 ppm	N/A
Cyanide	Less than 0.15 ppm	0.20
Sodium	1600 ppm	N/A

Settleable Solids

Solids passing through #10 sieve	more than 99%	More than 99 %
Total Settleable solids	less than 1%	1%

Analysis

Magnesium chloride	25% by weight, 85% by volume
Low Molecular Weight Carbohydrate	14.8% by weight, 15% by volume
Density	1.30 grams per ml
Weight per gallon	10.88 lbs
pH	6.0
Freezing Point	greater than -42° C

Corrosion Rate 28.6% (PNS Method)

The PNS method of determining corrosivity employs a modified National Association of Corrosion Engineers test method (TM – 01 – 69) where the steel corrosion rates in the de-icer is compared with that of a rock salt solution. The PNS requirement is that the deicer should have a corrosion rate of 30% or less than that of the rock salt solution. This composition more than complies with this requirement, at 28.6%.

Freezing Point Characteristics

Solution % (dilution)	Freeze Points	
	ICE B'GONE II HF® °C	30% Mag Chloride Solution (for comparison) °C
100	-42	-17
92	-42	-18
84	-42	-24
76	-40	-28
68	-32	-29
60	-26	-24
52	-22	-19
44	-17	-13
36	-13	-10
28	-9	-5
20	-5	-3
12	-3	-2
4	-1	---



...is safe to use around animals and humans. It does not affect skin, leather, clothing, or carpets. No special handling equipment is required .

...is water soluble and biodegradable.

...reduces the levels of sodium and chloride ion exposure to wells, vegetation, surface water.

...eliminates the need for sand, a major source of phosphorus and PM-10 contamination.

Sears warrants that ICE B'GONE® shall be fit for the purpose for which such goods are ordinarily intended. Such warranty is in lieu of all other warranties, express or implied, all of which are hereby disclaimed and excluded by Sears. In no event shall Sears be liable for any special, indirect, incidental or consequential losses or damages of any kind.

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