

Proposed Bid Specification for Treated Package Ice Melt ProMelt ENHANCED

SCOPE:

It is the intent of this specification to describe a mixture of complex chloride salt treated with liquid magnesium chloride and Organic Based Performance Enhancer derived from corn. The liquid treatment is intended to enhance the performance of the Chloride granules over untreated rock salt by reducing corrosiveness, improving low temperature performance, reducing bounce and scatter, reducing chloride load to the environment, and enhancing flow ability through spreaders. The treated salt is intended to be used to facilitate snow and ice prevention and removal on walkways.

DESCRIPTION:

The finished product shall be composed of two primary constituents:

- 1) Complex Chloride salt as described and specified in Section A below.
- 2) Liquid magnesium chloride / Organic Based Performance Enhancer. Specified in Section B
- 3) Finished product shall meet the description in Section C

SECTION A:

COMPLEX CHLORIDE

The Medium grade salt used in the preparation of the final product shall meet the following requirements.

A.1 CHEMICAL COMPOSITION

The Chemical composition shall conform to the components below

Component # 01			
No.	Properties	Specification	
		min	max
1	% Sodium Chloride	98	100
2	% Calcium Chloride	0.03	0.1
3	% Magnesium, water soluble content	0.01	0.1
4	% Potassium Chloride	0.2	1.5
5	Sulphate, water soluble content	0.01	0.15
6	Water Insoluble content	0.25	0.75

A.2 SIZE GRADING

The salt, when tested using sieves as described in ASTM-C-136 (*) shall conform to the following requirements for particle size distribution:

Screen Size (mm)	Screen Size (Tyler)	% Passing	
		min	max
5	4	99	100
2.5	8	60	80
1.25	14	2	10
0.6	28	0	1
0.3	48	-	0
0.16	100	-	0
0.07	200	-	0

SECTION B

LIQUID MAGNESIUM CHLORIDE / with OBPE ADDITIVE

Material used for this component of the finished product shall be a blend of liquid magnesium chloride and an Organic Based Performance Enhancer derived from corn sufficient to allow the finished material to meet the specific requirements and performance criterion listed below.

Note Well: NO DILUTIONS ALLOWED PRIOR TO BELOW PARAMETERS TESTING.

B.1 Material used for this component of the finished product should not contain below constituents in excess of the following established total concentration limits. Results are stated as Parts Per Million (ppm).

Component # 02					
No.	Properties	Test Method	Typical Values	Specification	
				min	max
1	Appearance	-	Translucent Tan	-	-
2	pH, deicer 1+4	ASTM D-1293	6.2	6	9
3	Specific Gravity (15oC 60oF)	ASTM D-1429	1.29	1.28	1.3
4	Weight (lbs/gal)	ASTM D-1429	10.76	10.68	10.85
5	Freeze Point Temperature	PNS	-65°C -85°F	-	-
6	% Freezer Settable Solids	PNS	<1.0	0	1
7	% Solids Passing #10 Sieve	PNS	>99.0	99	100
8	Total Dissolved Solids	-	33	32	37
9	Corrosion % effectiveness	NACE PNS	26.2	-	<30.0

Component # 02					
No.	Properties	Test Method	Typical Values	Specification	
				min	max
10	% Magnesium Chloride	PNS	27	26	28
11	% Sodium Chloride	PNS	-	0	1
12	% Calcium Chloride	PNS	-	0	1
13	% Potassium Chloride	PNS	-	0	1
14	Arsenic (ppm)	EPA 200.7	<1.0	0	5
15	Barium (ppm)	EPA 200.7	<0.5	0	100
16	Cadmium (ppm)	EPA 200.7	<0.05	0	0.2
17	Chromium (ppm)	EPA 200.7	<0.5	0	1
18	Copper (ppm)	EPA 200.7	<0.1	0	1
19	Cyanide (ppm)	EPA 335.4	<0.05	0	0.2
20	Lead (ppm)	EPA 200.7	<0.5	0	1
21	Mercury (ppm)	EPA 245.1	<0.02	0	0.05
22	Selenium (ppm)	EPA 200.7	<1.0	0	5
23	Zinc (ppm)	EPA 200.7	<0.1	0	10
24	Phosphorus (ppm)	EPA 365.4	15.9	0	2500

B.2

B.2 Material used for this component of the finished product should have pH in 3 – 9 range.

SECTION C

FINISHED PRODUCT

- C.1 Product will be delivered in either 44lb bags (56 bags/skid) or 50lb bags (49 bags/skid).
- C.2 Product will be orange in color and visually uniform in granule size
- C.3 Product will be capable of melting snow and ice to -5°F
- C.4 Product will be Complex Chloride Salt treated with 1.3-1.5% Liquid Enhancer by weight.

PRODUCT SOURCE AND AVAILABILITY:



1499 Jersey Street
South Plainfield, NJ 07080
908-561-3610
www.GreenWaysPlus.com

*Call for nearest distributor and availability