

# Proposed Bid Specification for Treated Bulk Ice Melt GWP Magic Salt

**SCOPE:**

It is the intent of this specification to describe a mixture of bulk sodium chloride treated with liquid magnesium chloride and Organic Based Performance Enhancer derived from molasses. Liquid used to treat the bulk salt pile should carry the DfE (Designed for the Environment) designation from the Federal EPA. 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. 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) Sodium 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:**

### SODIUM CHLORIDE

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

**A.1A PHYSICAL CHARACTERISTICS**

Component #01		
No.	Properties	Typical Values
1	Appearance	White to light brown
2	Odor	none

**A.1B CHEMICAL CHARACTERISTICS**

Component #01			
No.	Properties	Specification	
		MIN.	MAX
4	% Sodium Chloride	95.0	-
5	% Moisture	-	<2.0

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 molasses 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).

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

**Physical Characteristics:**

<b>Component # 02</b>					
No.	Properties	Test Method	Typical Values	Specification	
				<b>min</b>	
1	Appearance	-	Brown	-	1
2	pH, deicer 1+4	ASTM D-1293	4.0	3.0	2
3	Specific Gravity (15°/ 60°F)	ASTM D-1429	1.300	1.290	3
4	Weight (LBS/GAL)	ASTM D-1429	10.85	10.76	4
5	Freeze Point Temperature	PNS	-45°C/-49°F	-	5
6	% Freezer Settable Solids	PNS	<1.0	0.0	6
7	% Solids Passing #10 Sieve	PNS	>99.0%	99.0%	7
8	Total Dissolved Solids	-	38.4	37.4	8
9	Corrosion % Effectiveness	NACE PNS	9.8	-	9

**Chemical Characteristics:**

<b>Component # 02</b>					
No.	Properties	Test Method	Typical Values	Specifications	
				<b>min</b>	<b>max</b>
10	% Magnesium Chloride	PNS	22.4	21.4	23.4
11	% Sodium Chloride	PNS	-	0.0	1.0
12	% Calcium Chloride	PNS	-	0.0	1.0
13	% Potassium Chloride	PNS	-	0.0	1.0
14	Arsenic (ppm)	EPA 200.7	<1.0	0.0	5.0
15	Barium (ppm)	EPA 200.7	<0.5	0.0	100.0
16	Cadmium (ppm)	EPA 200.7	<0.05	0.0	0.2
17	Chromium (ppm)	EPA 200.7	<0.5	0.0	1.0
18	Copper (ppm)	EPA 200.7	1.3	0.0	4.0
19	Cyanide (ppm)	EPA 335.4	<0.05	0.0	0.2
20	Lead (ppm)	EPA 200.7	<0.5	0.0	1.0
21	Mercury (ppm)	EPA 245.1	<0.02	0.0	0.05
22	Selenium (ppm)	EPA 200.7	<1.0	0.0	5.0
23	Zinc (ppm)	EPA 200.7	<0.1	0.0	10.0
24	Phosphorus (ppm)	EPA 365.4	15.9	0.0	2500.00

**Section C**

C.1 Product will be brown in color

C.2 Product will be capable of melting snow and ice to -5°F

C.3 Product will be Sodium Chloride treated with a Magnesium Chloride/Molasses based liquid treated with a minimum of 8 and a maximum of 10 gallons per ton.

**PRODUCT SOURCE AND AVAILABILITY:**

**Green Ways Plus**  
**LIQUID & GRANULAR ICE MELTS**

1499 Jersey Street  
South Plainfield, NJ 07080  
908-561-3610  
[www.GreenWaysPlus.com](http://www.GreenWaysPlus.com)

\*Call for nearest distributor and availability