

# Product Data Sheet



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## FREEZGARD® CRYSTALS

### PRODUCTION LOCATION

Ogden, Utah

### PRODUCT DESCRIPTION

Freezgard® uses the superior deicing characteristic of magnesium chloride with reduced environmental impact.

### TYPICAL SCREEN ANALYSIS

Retained and Cumulative

| U.S.S<br>Mesh | Tyler<br>Mesh | Open.<br>(In.) | Ret.<br>% | Range<br>% | Cum.<br>% | Range<br>% |
|---------------|---------------|----------------|-----------|------------|-----------|------------|
| 4             | 4             | 0.187          | 25.4      | 0 – 58     | 25.4      | 0 – 58     |
| 6             | 6             | 0.132          | 53.3      | 41 – 65    | 78.7      | 57 – 100   |
| 8             | 8             | 0.093          | 18.3      | 0 – 37     | 97.0      | 94 – 100   |
| 10            | 9             | 0.079          | 3.0       | 0 – 6      | 99.9      | 99 – 100   |
| 16            | 14            | 0.064          | 0.1       | 0 – 1      | 99.9      | 99 – 100   |
| Pan           | Pan           |                | 0.0       | 0 – 1      |           |            |

Average Particle Size 0.162 inches (4.9 mesh)

| Chemical Analysis              |                                      |     | Typical |
|--------------------------------|--------------------------------------|-----|---------|
| Magnesium Chloride Hexahydrate | MgCl <sub>2</sub> •6H <sub>2</sub> O | (%) | 100     |

### PHYSICAL PROPERTIES

Bulk Density 50 lbs/cubic foot  
No Admixtures

### METHOD OF ANALYSIS

All testing is from North American Salt's internal quality control procedures, which are available upon request.

| Product And Pallet<br>Specifications | 50 lbs.<br>Bag      | One Ton<br>Tote Bag |
|--------------------------------------|---------------------|---------------------|
| Pallet Layout<br>(Tiers X Units)     | 5 x 10              | 1                   |
| Units per Pallet                     | 50                  | 1                   |
| Weight per Pallet (lb.)              | 2525                | 2080                |
| Height per Pallet (in.)              | 31                  | 40                  |
| Cubic Feet per Pallet                | 34.4                | 44.4                |
| Pallet Size (in.)                    | 48 x 40             | 48 x 40             |
| Pallet Weight (lb.)                  | 60                  | 60                  |
| Product Code                         | 53050               | 53000               |
| UPC Code                             | 0-41482-<br>53550-5 | 0-41482-<br>53000-5 |

### MAKING A 30% FREEZGARD SOLUTION

To make a 30% FreezGard® Liquid solution from FreezGard® Crystals simply follow the chart below to determine the quantity of solution desired. A simple ratio to remember is to take 13.9 pounds of FreezGard® Crystals for every gallon of water. This will yield approximately 2 gallons of a 30% FreezGard® liquid which will weigh 10.8 pounds per gallon.

| Solution Needed (Gallons) | FreezGard® Crystals (lbs) | Water (Gallons) |
|---------------------------|---------------------------|-----------------|
| 55                        | 371                       | 27              |
| 100                       | 675                       | 49              |
| 500                       | 3375                      | 243             |
| 1000                      | 6750                      | 486             |
| 1500                      | 10125                     | 728             |
| 2000                      | 13500                     | 971             |
| 2500                      | 16875                     | 1214            |
| 3000                      | 20250                     | 1457            |
| 3500                      | 23675                     | 1700            |
| 4000                      | 27000                     | 1942            |
| 4500                      | 30375                     | 2185            |
| 5000                      | 33750                     | 2428            |

### APPLICATION RATE

For maximum effectiveness in melting applications FreezGard Crystals® should be added dry at a rate of 0.10 to 0.20 pounds per square yard application area. FreezGard® 30% liquid should be added at a rate one to two gallons per 100 square yards application area. The amount of FreezGard® to add will vary from location to location upon traffic, weather, soil type, and desired reduction.