





**REDMOND**  
INCORPORATED



GRANULAR ICE MELT

REDMOND



NATURAL  
TRACE MINERAL SALT



FOOTE FAMILY FARM, LLC

**REDMOND**  
MINERALS, INC.

REAL FOODS





# Mother Nature's Own Blend



Exclusively Produced by



Redmond, Utah 84652



# High Performance Deicers



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# Deicer Performance Factors



- **Melting Power**
- **Corrosion**
- **Environmental Impact**
- **Product Handling Issues**
- **Effect on Service Level to Public**
- **Total Cost**



# What Is IceSlicer?

**Ice Slicer is a homogenous (not blended) product containing:**

<u>Mineral</u>	<u>Percentage</u>
<b>Complex Chloride <sup>TM</sup></b> <i>(Magnesium, Calcium, Sodium &amp; Potassium Chloride)</i>	<b>92-96%</b>
<b>Water – contained as moisture to 3% maximum (RS)</b>	<b>2.5%</b>
<b>Sulfur</b>	<b>0.13%</b>
<b>Iron</b>	<b>0.07%</b>
<b>Phosphorous</b>	<b>0.05%</b>
<b>Iodine</b>	<b>0.002%</b>
<b>Zinc</b>	<b>0.001%</b>
<b>Copper</b>	<b>0.0007%</b>
<b>Manganese</b>	<b>0.0007%</b>
<b>40+ Trace Minerals &amp; Micro-Nutrients</b>	<b>&lt; 0.005%</b>

**IceSlicer** contains all-natural corrosion inhibitors and environmental buffers crystallized within each granule - not just sprayed on the surface.



# Unique IceSlicer Advantages

- Safer roads: Decreased accident rate
- Fewer trucks & less equipment to cover more lane miles
- Equipment and road infrastructure will last longer
- Less time to fight each storm: IceSlicer melts faster, lasts longer
- Safer roads = Decreased liability
- Decreased clean-up time (compared to sand)
- Lower environmental impact
- Improved public perception of winter maintenance efforts
- **Lower total cost**



# The Best of Both Worlds

ICE SLICER has the best of both sand and salt without the negatives!

## **Benefits of Sand:**

- Provides instant traction
- Easily visible
- Readily available

## **Negatives of Sand:**

- Clogs sewers & drains
- Chipped/cracked windshields
- Requires cleanup
- Negative environmental impact
- High overall cost
- Aesthetically unpleasing
- Sand does not melt snow or ice



# The Best of Both Worlds

ICE SLICER has the best of both sand and salt without the negatives!

## **Benefits of Salt:**

- Effectively melts snow and ice
- No cleanup
- Inexpensive initial cost
- Readily available

## **Negatives of Salt:**

- Highly corrosive
- Effective only above 20°
- Negative environmental impact
- High overall cost



# The Best of Both Worlds

**ICE SLICER has the best of both sand and salt without the negatives!**

## **Benefits of ICE SLICER**

- Effectively melts snow and ice down to 0°
- No cleanup
- Provides instant traction
- Readily available
- Positive public perception
- Friendlier environmentally
- 70% less corrosive
- Lower overall cost
- More efficient – use less product and see superior results

## **Negatives of ICE SLICER**

- Single production facility – potentially higher cost depending on location



# Who's Using ICE SLICER?

A sampling of some of the Armed Forces Bases, Cities, Counties, Towns and States that use ICE SLICER.

**Arizona DOT**

**Arvada, CO**

**Aurora, CO**

**Berthoud, CO**

**Boise, ID**

**Boulder, CO**

**Broomfield, CO**

**Carbondale, CO**

**Casper, WY**

**Castle Rock, CO**

**Cheyenne, WY**

**Chicago, IL**

**Colorado DOT**

**Cripple Creek, CO**

**Denver, CO**

**Denver International Airport**

**Denver-Waste Water**

**Management**

**Fort Lupton, CO**

**Fort Collins, CO**

**Gillette, WY**

**Glenwood Springs, CO**

**Grand Lake, CO**

**Greeley, CO**

**Jackson Hole, WY**

**Kansas City, MO**

**Kearney, NE**

**Kersey, CO**

**Lakewood, CO**

**La Salle, CO**

**Lincoln, NE**

**Littleton, CO**

**Longmont, CO**

**Louisville, KY**

**Loveland, CO**

**Minnesota DOT**

**Minnetonka MN**

**Missouri DOT**

**Nebraska DOT**

**New Castle, CO**

**New Mexico DOT**

**NORAD**

**Offutt Air Force Base**

**Salt Lake City**

**Park City, UT**

**Summit Co., UT**

**Sidney, NE**

**Texas DOT**

**Thornton, CO**

**U.S. Air Force Academy**

**Utah DOT**

**Vail, CO**

**Victor, CO**

**Washington DOT**

**Wellington, CO**

**Westminster, CO**

**Windsor, CO**



# ICE SLICER and the Environment

## ICE SLICER is:

- **Non-Toxic**  
Food-grade products are mined from the same deposit
- **Public-Friendly**  
Won't stain carpet, shoes, asphalt, cement, etc.
- **All-Natural**  
The only processing to ICE SLICER is crushing and sizing to the proper grade.
- **Safer for Metal**  
70% less corrosive than salt on mild steel.
- **Safer for Concrete**  
Won't chemically attack concrete and reduces freeze/thaw damage.



Minimizing damage to vegetation, roadways, sidewalks, curbs, automobiles, bridge decks, etc. makes ICE SLICER one of the least costly deicer options available..



## Less Corrosive to Metals & Concrete

- ICE SLICER contains 1/60 the alkali content found in lake salt
- Many of the trace minerals act as natural corrosion inhibitors
- The presence of materials like magnesium chloride reduce the number of freeze/thaw cycles



## Provides Traction & Melting

- Each granule contains minerals that work at varying speeds
- Immediate effect from fast-reacting minerals
- Time-release effect from slower-reacting minerals



# Environmental Effects

## ICE SLICER's Effect on Waterways and Vegetation

### Waterways

- Decreased application rates = Fewer chlorides
- Decreased risk of chloride contamination to waterways.

### Roadside Vegetation

- Decreased application rates = less impact on vegetation
- Stop replacing shrubs and grass near treated walkways.

Biological/Chemical Oxygen Demand = 0



# Keeping Highways Open

How does IceSlicer help keep the highways open?

- IceSlicer penetrates more effectively through snow and ice.
- IceSlicer melts effectively even at 0°, allowing you to combat colder storms.
- Using less product means you cover more lane miles per load.
- IceSlicer is dense, so it stays on the road better and longer than salt or sand.



# PRODUCT OF CHOICE

- Iceslicer was the product of choice for the 2002 Olympics in Salt Lake City.
- The Olympic Committee purchased Iceslicer and placed it in the UDOT Maintenance sheds for them to use to insure the roads were open and safe at each venue.
- They could have chosen any product, but we are proud they chose Iceslicer which performed beyond their expectations.

# Performance Photos

**Testing in  
California  
Dec.25, 04**

IceSlicer

White Salt

Equal applications

**DEC 25 2003**

# Performance Photos

Iceslicer

White Salt

Testi  
Califo  
Dec.2

# Performance Photos

Testing in  
California  
Dec.25, 04

Iceslicer

White Salt

DEC 25 2004



Maple Grove Test Site 1-6-04

Iceslicer (RS) and Kansas (KS) Salt

Ambient Temp: 35 deg F

Plowed the road first Then applied 1 mile RS and 1 Mile Kansas

App Rate: 200#/lane mile

**Testing in Sevier Co. 2003**



Maple Grove Test Site 1-12-04

RS vs KS Salt

Observation only from test of 1/6/04

**Testing in Sevier Co. 2003**

“The Colony” @ The Canyons Ski  
Resort 7300' Elevation  
7° F. January 2006



"The Colony" Jan. 2006  
7° F



Huntsville Mar. 3, 2004

Iceslicer Residual from previous application.



Huntsville Mar. 3, 2004  
Iceslicer residual application





Any Questions?

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