

# De-Ice. Anti-Ice. Pre-Wet.

One powerful product, three cost-effective applications!



## Product Overview

*MeltDown*<sup>®</sup> is our premium magnesium chloride liquid product. *MeltDown*<sup>®</sup> is an economic, fast-acting, three-in-one ice melting product that will save you time, money and frustration.

As an **anti-icer**, *MeltDown*<sup>®</sup> has superior anti-bonding properties that allow removal of snowpack with simple plowing.

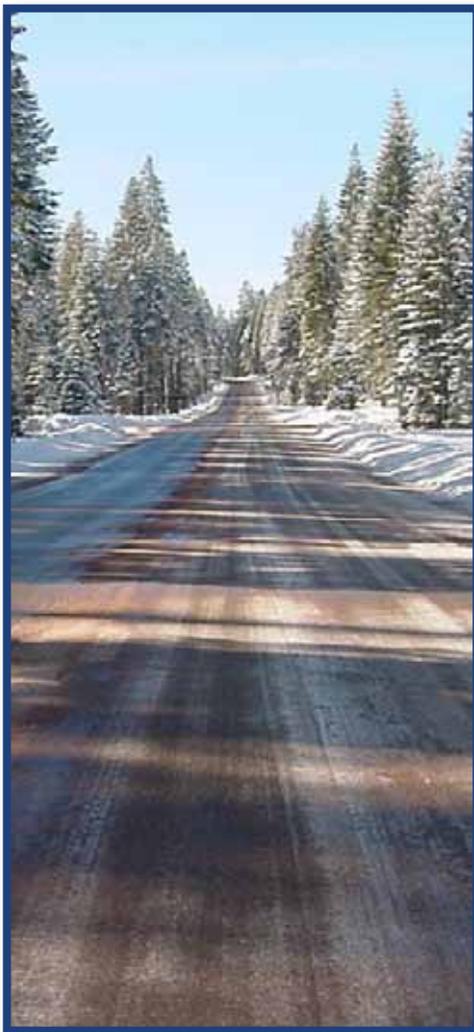
As a **liquid de-icer**, *MeltDown*<sup>®</sup> provides increased performance versus other liquid de-icers. When applied in a stream pattern, *MeltDown*<sup>®</sup> vertically penetrates any snowpack and breaks the bond at the road surface.

As a **pre-wetting agent** for salt and sand, *MeltDown*<sup>®</sup> reduces bounce and scatter, increases the speed at which the salt begins working and allows you to use salt at lower temperatures.

## Product Features

*MeltDown*<sup>®</sup> is part of a complete line of ground-breaking and environmentally responsible products by the innovative group. This product has passed the National Association of Corrosion Engineers Standard TM-01-69 tests as modified by the PNS. The specification set by the PNS is 70% less corrosive than salt. *MeltDown*<sup>®</sup> :

- Improves roadway traction when compared to other liquid products
- Free of toxic metals and substances and is used as a dust control agent and fertilizer for crops such as turf and small grains. For more information about PNS and PNS approved products visit their website at:  
[www.wsdot.wa.gov/partners/pns/resources.htm](http://www.wsdot.wa.gov/partners/pns/resources.htm)
- A performance leader working effectively even in the harshest of Canadian climates
- Safe for use around plants and animals
- Less corrosive. Less harmful to road surfaces and metals
- Cost effective, as it reduces equipment, maintenance and clean-up costs
- Better for the environment as lower application rates result in lower chloride and particulate matter emissions

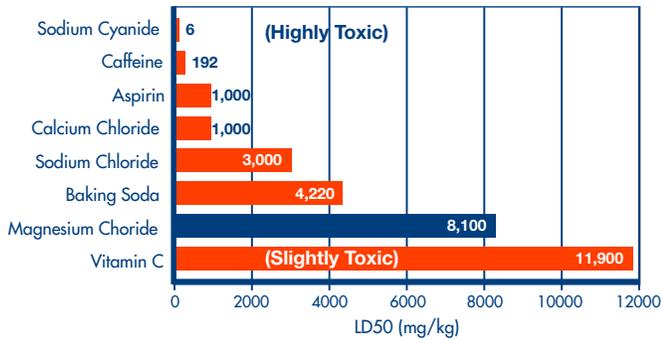


### Metal Corrosion Tendency

Deicing Fluid	PNSDOT Relative Corrosion Rate
Distilled Water	0
Rock Salt (NaCl)	100
Calcium Chloride 30%	121
Magnesium Chloride	80
MeltDown <sup>®</sup> Inhibited	11.76

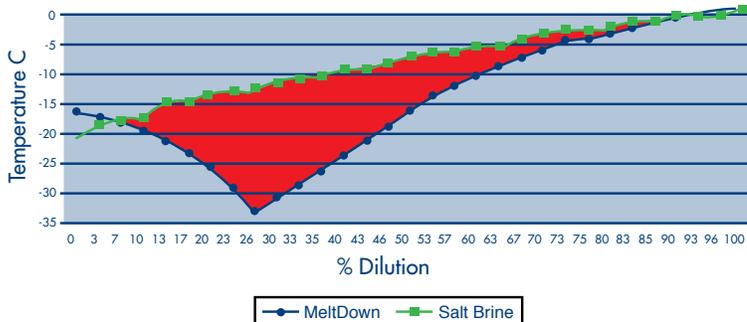
**READY WHEN NATURE STRIKES. GUARANTEED.**

## Toxicity of Common Chemicals



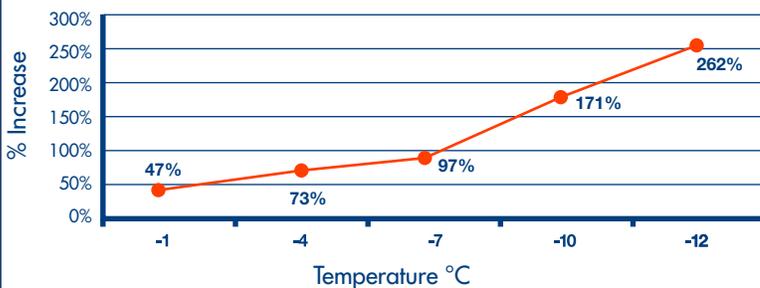
## Red Zone Graph

23% Salt Brine Vs MeltDown®



## Calculated Melting Capacities

% increase in Melting Capacity of MeltDown® vs NaCl



## Innovative Winter Solutions

*MeltDown®* gets the job done in the "red-zone". The Red Zone Graph demonstrates the improved performance of *MeltDown®*. The "red zone" is an illustration of the difference in freeze points between  $MgCl_2$  (*MeltDown®*) and  $NaCl$  (Salt Brine) when compared at equivalent dilutions. From the graph you will see that if each product is diluted 1:1 with water (from melting snow and ice)  $NaCl$  will refreeze at 19° F (-7° C) while  $MgCl_2$  will not refreeze until 2° F (-17° C). That 17 F (10°C) degree improvement in freeze point is significant when evaluating melting performance. No other chloride (not calcium or sodium) can boast any such improvement. The chart titled 'Calculated Melting Capacities' is an illustration of the increased melting capacity of *MeltDown®* vs Salt Brine at a wide range of temperatures. It is this increase in melting capacity that translates to increased efficiencies in de-icing operations.

## Product Application

*MeltDown®* is specifically designed for anti-icing, direct application de-icing, frost prevention, and pre-wetting of solids. Specific application guidelines are:

### Anti-Icing Operations

Application rates of 40 - 70 litres per lane kilometre (16 - 29 US gallons per lane mile) are typical. Up to 90 litres per lane kilometre should be considered the maximum in any anti-icing situation.

### Direct Application De-Icing

Application rates of 90 - 100 litres per lane kilometre (38 - 42 US gallons per lane mile).

### Frost Prevention

Application rates of 20 - 40 litres per lane kilometre (8 - 16 US gallons per lane mile) are standard. These rates can vary depending on storm conditions and service level goals.

### Pre-wetting Agent

*MeltDown®* can be used at rates from 20 - 60 litres per tonne or (5 - 15 US gallons per ton) of substrate, depending upon the solid used and the performance objective.

For more information on *MeltDown®* or our comprehensive solutions-based product line, please contact innovative surface solutions at **1.800.387.5777** or visit us online at [www.innovativecompany.com](http://www.innovativecompany.com).

## How To Order

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