



# MELTDOWN ABSOLUTE ZERO™

**MeltDown Absolute Zero™** is an environmentally friendly, low-corrosion de-icing product used to clear snow and ice from roadways, walkways, driveways, and parking lots.

**Product Composition.** Magnesium Chloride Hexahydrate has been naturally mined from salt water or brine since the 1960's. A unique solar evaporation process harnesses the power of the sun and gravity to evaporate the salt water. In a typical year, it is estimated that it would require seven million tons of coal to process the same amount using conventional methods. Once the brine has evaporated and settled, it is purified and concentrated to produce MeltDown Absolute Zero (magnesium chloride crystals). This natural process is environmentally friendly, cost effective and produces the highest quality deicer in the world.

**Low Corrosive Material.** Studies by the National Association of Corrosion Engineers, Washington Dept. of Transportation, and the Universities of Michigan and Oklahoma have found magnesium chloride to be significantly less corrosive than calcium chloride or salt.

<b>Material</b>	<b>Corrosion Rate</b> (10 Day Average)
3% Magnesium Chloride Solution	9.5 mpy
3% Calcium Chloride Solution	19.6 mpy
3% Sodium Chloride Solution	22.9 mpy
3% Potassium Chloride Solution	26.5 mpy

mpy = mills per year  
The procedures followed were in accord with NACE Standard TM 0169-76 "Standard Test method", "laboratory Corrosion Testing of Metals for the Process Industries". Performed by Charles H. Pitt, Ph.D., P.E.; Professor of Metallurgy; University of Utah; November 30, 1994.

**Safer for Concrete.** Magnesium Chloride is safer for concrete. Although all snow and ice melt materials have the potential to damage concrete due to normal freeze/thaw cycles, the deicer you use can minimize or increase the amount of damage. Studies by the federally-funded Strategic Highway Research Program (SHRP) show that magnesium Chloride causes less concrete damage than other deicers.

Independent testing of Magnesium Chloride, Calcium Chloride, and Sodium Chloride, using SHRP test methods, shows that after 15 freeze/thaw cycles, Sodium Chloride showed 60 times and Calcium Chloride showed 25 times more grams of concrete lost to spalling than Magnesium Chloride.

**How MeltDown Absolute Zero Works.** The most important characteristic of a good deicer is how quickly it attracts moisture and turns into a solution—it is the solution that actually does the melting. Magnesium Chloride's hygroscopic nature attracts moisture faster to melt more snow and ice than other common deicers. Magnesium Chloride melts more snow and ice at lower temperatures than other common deicers. Take a look at the lowest effective temperatures of common ice melts:

Sodium Chloride	12°F
Potassium Chloride	20°F
Calcium Chloride	-25°F
Magnesium Chloride	-25°F

Both straight and in blends, Magnesium Chloride is the most effective deicer at low temperatures when you consider safety and environmental impact.

**Using MeltDown Absolute Zero.** Since MeltDown Absolute Zero is more effective than plain white rock salt, you can use up to 50% less. And by using less product, fewer chlorides are put into the environment. Use existing deicing equipment to store, handle and apply MeltDown Absolute Zero.

**Health and Environmental Concerns.** MeltDown Absolute Zero is the least harmful of all common deicers to vegetation and groundwater according to studies by independent consultants, cities like Boulder, CO & Missoula, MT, as well as the US Department of Agriculture.

Studies by the University of Wisconsin show that FreezGard has the least impact on turf color and quality than any other deicer.

MeltDown Absolute Zero is non-irritating and safer to handle. It won't cause burning or stinging associated with other products.

MeltDown Absolute Zero's fast melting action penetrates the snow or ice immediately—it doesn't sit on top of the snow or ice and track indoors like other products.



**MeltDown Absolute Zero Packaging.** MeltDown Absolute Zero is currently available in 25# and 50# plastic bags. Other sizes are available upon request.

**Further Information.** For more information about MeltDown Absolute Zero or to learn about other products EnviroTech Services provides, please contact us at 800-369-3878 or 970-352-8845. You may also fax us at 970-352-0620, or write us at PO Box 338, Kersey, CO 80644. Please look for our home page on the World Wide Web at <http://www.envirotechservices.com>.

