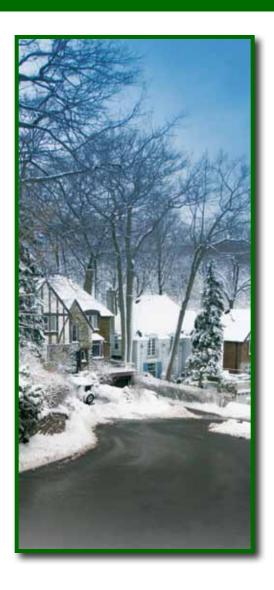
DfE Designation. Environmentally Friendly.

A versatile anti-icing, de-icing and pre-wetting agent!





Proud Recipients of



Recognized for Safer Chemistry www.epa.gov/dfe

Magic Minus Zero® liquid concentrate is a proprietary blend of magnesium chloride and agricultural by-products that have been EPA recognized as safer for the environment and authorized to carry the DfE emblem.

Magic Minus Zero® is an economical and environmentally effective way to keep your roads safe! Magic Minus Zero® allows for lower salt application rates and has less impact on the environment which leads to dramatic cost savings. Magic Minus Zero® meets the stringent requirements of the PNS (Pacific Northwest Snowfighters) for corrosion, toxicity and performance.

(For more information visit: www.wsdot.wa.gov/partners/pns/resources.htm)

Product Overview

Safer Roads

- Improves winter road conditions and service levels
- Salt pretreated or prewetted with Magic Minus Zero® works at lower temperatures than traditional dry salt
- Magic Minus Zero® treated salt stays on the road better thereby reducing bounce and scatter
- Magic Minus Zero® can safely be applied prior to a storm event (anti-icing) thus preventing a bond from forming between the pavement and the snow accumulation
- Magic Minus Zero® has a residual effect that is far superior to other de-icers. This fact is attributed to the high viscosity of Magic Minus Zero® reducing chloride brine runoff into the road shoulders
- Magic Minus Zero® is ideal for treating black ice and clear weather frost on road and bridge surfaces
- Magic Minus Zero® can also be used as a concentrate with salt brines to reduce corrosion, lower freeze points and increase working time
- Available in 55 gal (205L) drums, 265 gal (1000L) totes and bulk tank trucks

Typical Corrosion Performance

Deicing Fluid	PNSDOT Relative Corrosion Rate
Magic Minus Zero®	22.4
Distilled Water Rock Salt NaCl ₂ Calcium Chloride (CaCl ₂) Magnesium Chloride (MgCl ₂)	0 100 121 80

Reduce Costs

- Saves Time, Labor, Fuel and Materials
- Lower working temperatures coupled with better adherence and residual effect results in a 20 40 percent salt savings
- Eliminates the need for sand: its cleanup and disposal
- Dramatically reduces the corrosivity of salt and its effect on equipment, chains, bearings, frames, brakes and electrical components

Typical Analysis

Solids
MgC1 ₂
Freeze Point
Specific Gravity
PH
Solubility
Appearance
Odor

37.4 - 45.4%
22.4 MPY
-49°F / -45°C
1.302
4.70
99%
Brown liquid
Sweet smelling

Environmental Benefits

- Safer for use around animals and humans. Does not affect skin, leather, clothing or carpets
- Reduces the levels of sodium and chloride ion exposure to wells, vegetation and surface / groundwater
- Eliminates the need for sand, a major source of phosphorus and PM-10 contaminates
- Infrastructure Protection Magic Minus Zero® protects roads and infrastructure by dramatically reducing corrosion rates



This product is (or includes) a patented product of Sears Ecological Applications Co., LLC and is manufactured under one or more U.S. Patents, including U.S. Patent No. 6,299,793 and related patents.

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