



“Sustainable PPPL” is a new regular feature of the ES&H Newsletter that focuses on environmental improvements—energy and water conservation, pollution prevention, recycling, environmentally preferred products, etc. – that help PPPL move toward more sustainable facility operations.

Magic Salt™ – An Environmentally Friendly De-icer

PPPL’s Maintenance and Operations division recently began using a new environmentally friendly de-icer called ‘Magic Salt’ to assist in safely and efficiently melting the ice and snow during the winter months.



Rock salt damage to grass - Magic Salt - no damage.



A biodiesel fueled ‘Gator’ is ready to spread Magic Salt.

- Magic Salt starts out as ordinary rock salt, which is then treated with a liquid, agricultural by-product of the distilling process blended with magnesium chloride. This patented liquid is trademarked as Magic Minus Zero.
- Magic Minus Zero is non-toxic, bio-degradable and has a corrosion index lower than distilled water. Areas of the Laboratory that are especially prone to icing, such as the LSB entrance, are being pre-treated with Magic Minus Zero in advance of winter storms to limit ice formation.
- Magic Salt continues to work at temperatures of -35 degrees Fahrenheit. Ordinary rock salt loses its melting capabilities at 18 degrees Fahrenheit.
- Magic Salt is safer to use on concrete, is less corrosive, may not harm curbside grassed areas or plants, and continues to melt ice to below -35F° providing for safer conditions.
- Magic Salt has a veneer of sticky material causing it to adhere better than rock salt to the roads and walkways.



This newsletter is issued by the U.S. Department of Energy’s Princeton Plasma Physics Laboratory; under Contract No. DE-AC02-76CH03073. Correspondence and requests to reprint material should be directed to Department Head, ES&H and Infrastructure Support Department, P.O. Box 451, Princeton, NJ 08543. Interoffice correspondence should be addressed to J.W. Anderson (MS-6, fax 609-243-2303, telephone 609-243-2207; or e-mail to jwanderson@pppl.gov)

Princeton Plasma Physics Laboratory is a U.S. Dept. of Energy National Laboratory

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