

# Prewetting with LIQUIDOW®

## 32% Calcium Chloride Deicing Solution

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### PREWETTING ROCK SALT

Prewetting rock salt and abrasives with liquid calcium chloride has shown benefit for and been endorsed by dozens of government agencies for more than 25 years. LIQUIDOW 32% calcium chloride is the typical choice for prewetting applications, as it meets or exceeds ASTM D98 and AASHTO M144 guidelines.

Prewetting rock salt improves the level of service and reduces the overall cost of deicing by providing faster ice-melting action, improving low temperature performance and reducing bounce and scatter. Typical application rate is 6-10 gallons of LIQUIDOW per ton of rock salt.

### PREWETTING ABRASIVES

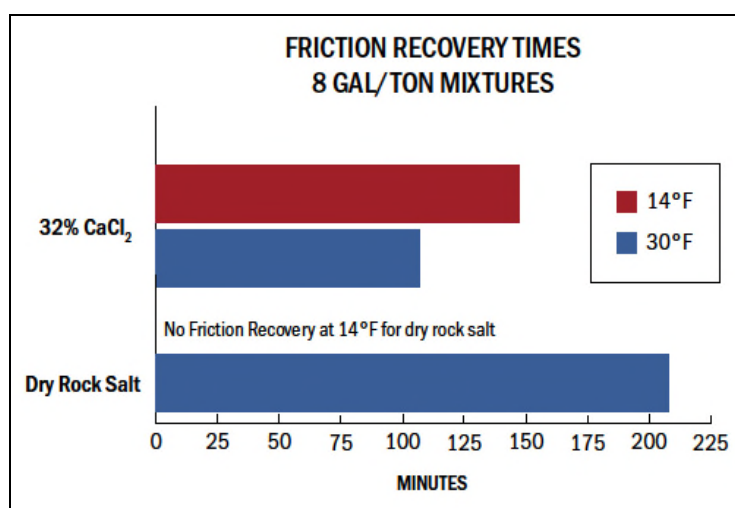
Prewetting abrasives helps embed the abrasives in packed snow and ice, which improves traction and reduces losses from bounce and scatter. Typical application rate is 7-15 gallons of LIQUIDOW per ton of abrasive.

## FREQUENTLY ASKED QUESTIONS

### How does prewetting with LIQUIDOW change the lowest effective temperature of rock salt?

A study<sup>1</sup> tested how the melting performance of prewetted salt was influenced by temperature. After both dry and prewetted rock salt were applied, the time required to return to wet pavement conditions were measured. Figure 1 shows that at 14°F, dry rock salt was ineffective, but prewetted rock salt returned to wet pavement conditions at the same temperature.

Figure 1 Friction Recovery Times



### What are the benefits associated with prewetting sand stockpiles with liquid calcium chloride?

The Cass County Road Commission in Michigan found that liquid calcium chloride-treated sand stayed where it was spread and helped maintain long-lasting abrasion qualities under ice conditions.<sup>2</sup> When liquid calcium chloride was added to salt-sand mixtures, they achieved improved melting power and good spreading. However, the biggest advantage to prewetting the sand was an improvement on safety - frozen lumps in stored sand were eliminated, which previously required manual removal by employees during mixing operations.

<sup>1</sup> Laboratory Melting Performance Comparison; Rock Salt With and Without Prewetting, Sixth International Symposium on Snow Removal and Ice Control Technology, June 7-9, 2004, Spokane, WA.

<sup>2</sup> The Chloride Solution; How employees solved a winter operations problem for the Michigan Cass County Road Commission; Better Roads, April 2004.