

# Technical Bulletin

## Application Rates for CMA25 Liquid Anti-icer and Deicer

State transportation departments have been using liquid CMA25 since 1991 to successfully deice and anti-ice roadways. These agencies have either purchased liquid CMA25 from Cryotech or more recently dissolved solid CMA100 in their own mixing stations to a 25% solution. Application rates have generally been based on successful experiences with liquids in Minnesota, Oregon, and Washington states.

These rates vary for freezing rain, black ice, frost, and heavy snow conditions. For example, Oregon DOT has used as little as 15 gallons per lane mile (12.5 g/meter<sup>2</sup>) to control black ice and frost. Yet it is difficult to establish firm rate guidelines because a multitude of winter roadway driving conditions result from an equally wide variety of storm activities.

Liquid CMA25 has been successful for anti-icing or deicing black ice, ice fog, or thin layers of snow at rates ranging from 15 to 30 gallons per lane mile (12.5 - 25 g/meter<sup>2</sup>). Rates are increased to 30-60 gallons (25 - 50 grams) for deicing operations once heavy snow is falling or a freezing rain conditions exist.

Application decisions on timing, amount of fluid, and frequency always depend on roadway conditions as they develop during a winter storm. A host of variables come into consideration including: pavement temperatures, ambient temperatures, type of precipitation, rate of precipitation, equipment availability, and the like. Field experience with local conditions is a critical factor in liquid deicing operations.

Cryotech and various state snow and ice control managers are available to provide training to help transportation departments better understand chemical application and the variables that affect successful management of roadways during winter storms.

Technical assistance and on-site training are available by calling Cryotech at 800-346-7237.