

**METHODS OF SAMPLING AND TESTING**  
**MT 501-16**  
**pH, INSOLUBLE MATERIAL, CORROSION RATE, PERCENT SETTLEABLE SOLIDS AND**  
**PERCENT PASSING A # 10 SIEVE OF BRINE MATERIALS**  
**(Montana Method)**

MT 501 is identical to the 2010 Pacific Northwest Snowfighters Snow and Ice Control Chemical Products Specifications and Test Protocols for the PNS Association of British Columbia, Colorado, Idaho, Montana and Washington (<http://pnsassociation.org/wp-content/uploads/PNSSPECS.pdf>) except for the following stipulations:

**Test Method C**

- 1 Perform a prescreening procedure for the Percent Total Settleable Solids methods.
- 1.1 Pour a well-mixed sample into a 50 ml conical bottom disposable vial to the 50 ml mark. Cap vial. Repeat for all samples. Place the vials in a freezer at the test temperature designated below for 168 hours:
  - Sodium Chloride:  $-17.8^{\circ}\text{C} \pm 1^{\circ}\text{C}$  ( $0^{\circ}\text{F} \pm 2^{\circ}\text{F}$ )
  - Magnesium Chloride:  $-17.8^{\circ}\text{C} \pm 1^{\circ}\text{C}$  ( $0^{\circ}\text{F} \pm 2^{\circ}\text{F}$ )
  - Calcium Chloride:  $-29^{\circ}\text{C} \pm 1^{\circ}\text{C}$  ( $-20^{\circ}\text{F} \pm 2^{\circ}\text{F}$ )

*Note 1 – Ensure the samples remain free from agitation or disturbance during the entire testing duration.*

- 1.2 At the end of the testing time (168 hours), observe samples. If any noticeable hardening or crystallization of the deicer is observed, then perform additional testing in accordance with PNS Test Method C. If the sample does not exhibit hardening or crystalizing the sample passes the test.
- 2 Report
  - 2.1 Report settleable solids as a (V/V) percent  $\pm 0.1\%$  in Site Manager.
  - 2.2 Report solids passing through a number 10 sieve as a (V/V) percent  $\pm 0.1\%$  in Site Manager.