

METHODS OF SAMPLING AND TESTING
MT 501-16
pH, INSOLUBLE MATERIAL, CORROSION RATE, PERCENT SETTLEABLE SOLIDS AND
PERCENT PASSING A NO. 10 SIEVE OF BRINE MATERIALS
(Montana Method)

MT 501 is identical to the 2010 Clear Roads Snow and Ice Control Chemical Products Specifications and Test Protocols (<https://clearroads.org/wp-content/uploads/12-10-Final-CR-SPECS-wCategory4.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 Clear Roads Test Method C. If the sample does not exhibit hardening or crystallizing 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.