Brine Making Basic Components

Source: Iowa DOT
Step 1

- Add rock salt

Source: Iowa DOT
Step 2

Step 2 – Add water to the salt. A manifold or other type of mechanism controls the flow of water.
Step 3 — As the controlled flow of water percolates up through the rock salt, the solution becomes more and more concentrated.

Source: Iowa DOT
Final Product

Step 4 - The liquid at the overflow level is at or near the 23% salt solution. The brine solution flows into the holding tank and is tested for the correct concentration using a hydrometer or salimeter.

If too dilute, the solution is recirculated back through the mixing tank.

Or, if too concentrated, additional water is added.

Once the concentration is correct at 23.3%, the brine can be used to refill anti-icing and prewetting tanks, or offloaded to storage tanks, ready to use when needed.

Source: Iowa DOT