

# Environmental Impacts of Salt & Deicing Chemicals

With colder weather just around the corner, many of you will begin treating your sidewalks and driveways for snow and ice. The most commonly used deicer in Minnesota is **salt, or sodium chloride**. While it is very effective in melting ice, high concentrations can have negative impacts on the environment.

An estimated **445,000** tons of chloride-containing salt are scattered across Minnesota each year for deicing. Salt that is applied to roads, driveways, and sidewalks accumulates in the surrounding soil which is harmful to vegetation. It can also be transported by stormwater and melting snow to surface waters, which disrupts aquatic life by eventually settling into a concentrated layer and creating a “dead zone” at the bottom of a lake or pond. **Only 1 teaspoon of salt will pollute 5 gallons of water!**

There are alternative deicing agents such as calcium magnesium acetate (CMA) and carbohydrate-based deicers such as beet juice. However, in high concentrations, these alternatives can also have adverse effects on the environment.

While a 100% environmentally friendly deicer does not exist, **the best practice is only apply deicers where needed, and to NEVER OVER APPLY.**

To reduce the amount of deicer needed, first remove snow before applying deicers. Around 12 ounces – roughly a coffee mug full – effectively treats a 20-foot-wide driveway or 10 sidewalk squares. Not only is using less deicer cheaper, but it limits the potential for negative environmental impacts.

Whether you use large or small quantities of salt or other deicing materials, they should be stored such that they cannot potentially enter a waterway. An airtight container is best for smaller quantities.

Finally, near the end of the winter season, please remember to **sweep up excess salt/deicer and throw it in the trash**. Otherwise, it may eventually be washed into a sewer drain and eventually reach a local river, lake, or pond.

For additional information on the environmental impacts of salt and deicing chemicals, please go to: [https://stormwater.pca.state.mn.us/index.php/Environmental impacts of road salt and other de-icing chemicals](https://stormwater.pca.state.mn.us/index.php/Environmental%20impacts%20of%20road%20salt%20and%20other%20de-icing%20chemicals)