

## Winter Deicing

When snow and ice pile up, salt is commonly used to speed up the melting process. However, salt can be harmful to the environment in high concentrations. Excess salt can destroy the structure of soil, causing it to erode more easily. High concentrations of salt can kill species of plants and aquatic life that are not tolerant of high concentrations. Salt can also leech through the soil, contaminating groundwater that becomes drinking water.



There are several alternatives to reduce that amount of salt needed for deicing. Alternatives include potassium chloride, calcium chloride, magnesium chloride, corn processing by-products, and calcium magnesium acetate (CMA). These afore mentioned alternatives can be found under several brand names, so be sure to read the labels.

Any alternative can be harmful when over applied. All of the alternatives are most effective when used in combination with salt. CMA is the most environmentally friendly alternative to salt. However, it is the most expensive, and effectiveness decreases when temperatures drop below 26 degrees Fahrenheit.



### To reduce salting needs:

- Shovel sidewalks and driveways to reduce the ability of ice to build up.
- Take the temperature into consideration when determining which deicer will be most effective.
- Only apply deicers where necessary—on the most high traffic areas.
- Use sand for traction to reduce the amount of salt needed.

### Where To Get Help for winter de-icing information

- Melting Ice Safely; [http://extension.umd.edu/sites/default/files/\\_docs/programs/bay-wise/FS707-MeltingIceSafely.pdf](http://extension.umd.edu/sites/default/files/_docs/programs/bay-wise/FS707-MeltingIceSafely.pdf)
- Using Deicers Properly; [http://www.michigan.gov/documents/ch2-deice\\_51438\\_7.pdf](http://www.michigan.gov/documents/ch2-deice_51438_7.pdf)
- Winter Weather, Chemical Deicers, and the Chesapeake Bay; <https://code250.gsfc.nasa.gov/docs/Winter%20Weather,%20Chemical%20Deicers%20and%20the%20Chesapeake%20Bay.pdf>