



Choosing a Deicer:

Slick steps, walkways and driveways can be hazardous to your health. Removing compacted snow and ice with a shovel or blade is not always easy and we tend to depend on deicers to make the task easier. Although deicers are a necessary part of winter we should choose them carefully as not to harm plants planted near by and cause damage to concrete.

When choosing a deicer you should consider cost, effectiveness, and long term effects. Let's take the mystery out of choosing deicers for your walkways and roads. Deicers are available in pellets, flakes, irregularly-shaped particles, and liquid. Research shows that uniformly-shaped, spherical pellets of 1/16" to 3/16" diameter penetrate ice faster than other shapes. There are five chemicals commonly used as deicers. They may be used alone, combined together, or combined with other products to improve their effectiveness.

Calcium chloride (CaCl_2) is available in flake, pellet, or liquid form and often outperforms other deicing products. It will melt ice at temperatures down to -25 degrees. Plants can be harmed by over use of calcium chloride. Since it tends to wash away easily you may want to mix it with sawdust, ashes, or cat litter.

Sodium chloride (NaCl) also known as rock salt has been used since the 40's. It is relatively inexpensive, but can burn plants and corrode metal and concrete. It causes soil compaction and inhibits root growth of plants. It also loses most of its deicing effectiveness when temperatures are below 25 degrees.

Potassium chloride (KCl) is a naturally occurring material that is used as a fertilizer. Remember fertilizer is good for plants, but a high concentration can be deadly. This is the common problem with using this deicer. It is effective to 12 degrees.

Urea is made from ammonia and carbon dioxide and is used primarily as a nitrogen based fertilizer. At high concentrations, it has the potential to harm plants, but has a lower burn potential than potassium chloride. It is effective to 15 degrees.

Calcium magnesium acetate

(CMA) is a new, salt free melting agent made from dolomitic limestone and acetic acid. It causes little damage to concrete or plants and is used as an alternative to salts in environmentally sensitive areas. It is effective down to 5 degrees. Pelleted fertilizers containing ammonium nitrate or ammonium sulfate are sometimes used for melting snow and ice. Be aware that these tend to damage concrete more than sodium chloride or calcium chloride do and can cause plant injury. For locations where chemical deicers aren't appropriate, sand or cat litter can provide some traction. When selecting deicing products, consider both cost and effectiveness. Always read and follow label directions when applying deicing materials.

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