



Salt Tips for Your Home

Tis the season for wonderful snow, sleet and everything in between that makes it difficult to keep your sidewalks safe. We hope these salt tips come in handy!

What are you trying to accomplish? What surfaces are you salting? What is the air temperature? What is the pavement temperature? How frequent and what rate of salt will you need? Understand what kind of salt you need for your application and the temperatures that it works in. A few examples of types of salt:

Sodium Chloride | Calcium Chloride | Magnesium Chloride | Calcium Magnesium Acetate | Potassium Acetate

Pounds of Ice Melted Temperate Degrees F	Per Pound of Salt One Pound of Sodium Chloride (Salt)
30°	46.3 lb. of ice
20°	8.6 lb. of ice
15°	6.3 lb. of ice
10°	4.9 lb. of ice
5°	4.1 lb. of ice
0°	3.7 lb. of ice
-6°	3.2 lb. of ice

Environmental Impact CMA Versus Road Salt		
Environmental Impact	CMA	Salt (NaCl)
Soils	<ul style="list-style-type: none"> Biodegradable in soil No adverse effect on soil compaction and strength Increases soil permeability 	<ul style="list-style-type: none"> Sodium may accumulate in soil Breaks down soil structure, increases erosion Causes soil compaction which decreases permeability
Vegetation	<ul style="list-style-type: none"> Little or no adverse effect May stimulate roadside plant growth Acetate ion is the most abundant acid metabolite found in nature 	<ul style="list-style-type: none"> Osmotic stress and soil compaction harm root systems Spray causes foliage dehydration damage Many plant species are salt sensitive
Groundwater	<ul style="list-style-type: none"> Poor mobility in soil, unlikely to reach groundwater Ca, Mg increases water hardness 	<ul style="list-style-type: none"> Mobile Na and Cl ions readily reach groundwater Increases Na and Cl concentrations in well water along with alkalinity and hardness
Surface Water	<ul style="list-style-type: none"> Potential for oxygen depletion through biological oxygen demand (BOD) at concentration greater than 100 ppm in closed systems Decomposes in 5 days at 20°C, 10 days at 10°C, 100 days at 2°C Will not stimulate algae growth 	<ul style="list-style-type: none"> Causes density stratification in ponds and lakes which can prevent reoxygenation Increases runoff of heavy metals and nutrients through increased erosion
Aquatic Life	<ul style="list-style-type: none"> Less toxic to trout than salt Minimal effect on trout eggs up to 5 times expected maximum runoff concentration of 1000 ppm No effect on food chain (zooplankton, daphnia, bluegill, and fathead minnows) up to 1000 ppm 	<ul style="list-style-type: none"> Monovalent Na, Cl ions stress osmotic balance Toxic levels: Na 500 ppm, stickleback, Cl 400 ppm trout