

Salt and Drinking Water

Road salt storage, road salt application, and snow storage are three activities that pose potential threats to the quality and safety of our drinking water. Road salts contain both sodium and chloride which have been identified as substances that could contaminate surface and groundwater as a result of winter maintenance activities. At a concentration of 250 mg/L, chloride causes drinking water to taste extremely salty, sometimes to the point where it is not drinkable.

At typical concentrations in drinking water, sodium and chloride are not risks to human health. However, at concentrations greater than 20 milligrams per litre (mg/L), sodium intake can present a health issue for some people, particularly those who are restricted to a low-sodium diet due to hypertension (high blood pressure).



Salt Information

Smart About Salt
www.smartaboutsalt.com

Ontario Good Roads
www.ogra.org

Ministry of the Environment and
Climate Change
www.ontario.ca



Don't get salty over ice and snow!



Salt and Winter Maintenance

Each year in Canada, we use an average of 5 million tonnes of road salts as deicers and spend over \$1 billion on winter maintenance to keep roads, walkways and parking lots safe and passable.

Road salts are the preferred deicing chemicals for maintaining winter safety because of their cost, effectiveness, and ease of handling. In Ontario, the majority of road salt used is handled by road authorities, such as municipalities and the Ministry of Transportation, but businesses and homeowners also use and store salt. Most commonly, liquid salts are applied on their own or in combination with traditional rock salt in advance of snow accumulation.

Despite its help in keeping us safe during the winter, salt negatively impacts many aspects of our natural environment. Surface and groundwater, vegetation, aquatic life, wildlife, and soils are all impacted when salt enters the natural environment. According to a University of Michigan study in 2009, approximately 70 percent of the road salt spread on urban roads is retained in a watershed. Our clothes, shoes, lawns and vehicles can also be damaged by interactions with salt throughout the winter months.



What can I do at home to help keep salt out of the environment?

Salt can make winter safer, but it's only part of the solution. There are simple steps that homeowners can take to help prevent extra salt from entering the environment.

- Use salt alternatives like sand or cat litter for traction, or look for calcium chloride or magnesium chloride salt products.
- Follow weather conditions to determine when to shovel and salt. Do not apply salt if rain is expected, or if it is below -180°C , salt will not work below this temperature.
- Plan extra time in your day for shoveling. Shoveling is great exercise when done properly, and minimizes the need for salt.
- Shovel and pile snow away from sewers and waterways. These pathways carry snow melt and dissolved salts more directly into water ways.
- Avoid piling snow uphill of paved areas to prevent it from running across the pavement during the day and freezing at night.
- Wear sturdy footwear designed for snow and ice to help prevent slips and falls.
- Put snow tires on your car in addition to giving yourself extra time to arrive at your destination.
- Redirect downspouts away from walkways and driveways to prevent ice buildup in these areas.
- When using de-icing material, use on icy areas only and be sure to follow the manufacturer's instructions for application amounts.
- Store salt in a container with a lid to prevent it spilling and washing into water sources, and sweep up loose salt to prevent it from entering water courses.