CHEMICAL DE-ICING FACTS

Winter weather and cold temperatures roadways on Bainbridge Island can cause dangerous icy conditions. In the past sand has always been an effective tool to help improve traction but has its limitations. Sand gets tracked by tires and gathers on the sides of the roads, decreasing its effectiveness on high-volume roadways. Sand also clogs storm drains and can Impact aquatic life in streams. Maintenance costs for sand, both when applied, and removed after the storm are high and labor-intensive.

Chemical deicers are now being used in addition to sand. Chemical deicers lower the freezing point of water, allowing lower temperatures before ice forms on the roads. Like sand, the initial application is on hills, curves, major arterials, and heavily used routes. Chemical application does not guarantee ice-free roadways but is one more tool we can use to keep roads safer. Motorists have valid concerns regarding chemical brine used on the roadways. The following are the most commonly asked questions about the chemical deicers we use.

What kind of liquid chemicals does Banbridge Island use to treat roads?

Bainbridge Island uses a chloride (salt) brine diluted with water to 23.3% sodium chloride. Sodium chloride is the safest and most cost- effective anti-icing product available.

Is salt corrosive? Will it damage my vehicle?

All chloride products used for anti-icing can be corrosive. Western Washington experiences relatively mild and brief winter storms which reduces the amount of exposure over the course of winter. Our rainy winters wash corrosives off of the streets minimizing exposure, and newer vehicles are manufactured using plastic, fiberglass, stainless steel, and other non-corrosive materials. It is recommended that you wash your car periodically during winter season to wash chemical residue from your vehicle. Always stay at least 200 feet behind trucks when sand/brine is being applied to avoid heavy exposure.

Aren't there other anti-icing products less corrosive than salt?

There are some products that are known to be less corrosive in areas where salt Is used frequently and for long periods during winter weather. A Washington State Department of Transportation multi-year study showed that in Washington's wet climate there is little to no difference in corrosion caused by salt when compared to other ice-inhibiting products. Another consideration is cost. Chloride products that include corrosion inhibitors are two to three times more expensive than the salt brine mixture used by Bainbridge Island.

Will the salt/chemicals put on the roads hurt the environment?

The volume of antl-iclng products needed to manage road Ice in the Pacific Northwest is low. Because of this, environmental impact is considered minimal. The Washington State Transportation Center along with Washington State University conducted a thorough scientific study regarding the effects of chloride anti-icing products on the environment. The study looked at a stretch of State Route 97 near Leavenworth, located near Peshastin Creek, which is a known fish-bearing stream. High volumes of chloride products are used on that stretch of road to prevent ice on the road surface. The results of the study indicated that the application of chloride products had no measurable impact on Peshastln Creek. See details at: http://www.wsdot.gov/research/reports/fullreports/500.1.pdf.

Prepare your vehicle for winter driving!

Keeping your vehicle in top operating condition is important year-round for safety and fuel economy. It is especially important to be prepared in winter and to avoid unpleasant and dangerous situations that can happen on snowy and icy roads. Get your vehicle ready for winter by checking these items:

☐ Ignition system	☐ Fuel System
☐ Fluid levels	☐ Brakes
☐ Wiper Blades	☐ Windshield washer fluid
☐ Snow tires	☐ Tire tread & pressure
☐ Defroster	☐ Proper grade oil
☐ Cooling system	☐ Exhaust system
☐ Battery	☐ Lights
☐ Antifreeze	☐ Emergency kit

Here are some other important tips to prepare for winter driving. Keep these in mind while driving in inclement weather.

- Always fill your tank before heading to open country, even for a short distance. Fill the tank long before it begins to run low. Keep your tank as full as possible to minimize condensation or risking running out if in a trouble situation.
- A citizen's band radio and/or cell phone is useful in case of an emergency
- Keep headlights on even during the day.
- Keep a windshield scraper, small shovel, jumper cable, tow chain and bag of sand or cat litter for traction.
- Keep an emergency kit including road flares, blanket, heavy boots, warm clothing, first aid, flashlight, batteries, water, & snacks.

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