**Minnesota Now (MPR) | Minnesota Now Minnesota Now - More salt doesn't always mean less ice: how to prevent icy roads this week 01GM6D0QZBM2R470G8S52T21TN**

CATHY WURZER: Course you heard that we're in for some slick roads and sidewalks the next few days. MnDOT is out busy salting, sanding. You might want to dump a bunch of salt on your driveway hoping that will fix whatever slick spots are going to occur. Our next guest says more salt doesn't necessarily mean less ice. Brooke Asleson is the director of the chloride program at the Minnesota Pollution Control Agency. Brooke, welcome to Minnesota Now.

**BROOKE ASLESON:** Thank you. Happy to be here.

**CATHY WURZER:** Let's talk about the environmental impacts of salt, shall we? I'm sure you and I have talked over the past five years or so about how various municipalities are trying to cut back on the use of salt because of the environmental impacts. So just run them down for us.

**BROOKE ASLESON:** Yes. Salt contains chloride, which is a really big problem for Minnesota's freshwater fish and insects. They, of course, are freshwater and do not want to be living in lakes and streams and wetlands that have a bunch of chloride in them. And it's actually toxic to those freshwater organisms.

And so it can cause a wide range of problems and really the only way to prevent that is from not applying as much de-icer, or using as much salt as we are because chloride is a permanent pollutant. And so it really will stick closely to that water and does not get removed naturally and will not break down over time. And so while safety is, of course, always very important, we also want to make sure we're keeping our freshwater species in mind when we're using salt in the winter.

**CATHY WURZER:** So is less more if you decide to use salt?

**BROOKE ASLESON:** Yes. There are a lot of different tools, of course, that are out there for dealing with the snow and the ice, and one of the tools that a lot of folks reach for, of course, is salt. And there is a lot of science that goes into how salt actually works. And most of those de-icers that you will find at your hardware store might contain sodium chloride. That's the most common salt that we see.

And that particular salt is not going to melt ice when the pavement is colder than 15 degrees. So these colder temperatures that we were just hearing about from Sven, once we reach down to those temperatures, those salts are really not going to be effective, and that's where you want to switch to a sand or some other material for traction because those de-icers are just not going to be effective at those cold temps.

**CATHY WURZER:** I'm a big fan of grit. Do you use grit?

**BROOKE ASLESON:** I do not. We just had a lot of ice scraping and shoveling going on at our house. But I have heard a lot of folks that use chicken grit, and that seems to be pretty popular.

**CATHY WURZER:** Mm-hmm. So do you shovel and shovel and scrape and scrape until you get as close to the pavement as possible?

**BROOKE ASLESON:** Yeah, so really removing that snow and ice as the storm is coming through, especially when we're going to be getting these large amounts of snow over the next couple of days, getting out there frequently and shoveling as much as you can and often as you can to just prevent that compaction from happening. Because once the sidewalks, the driveways, have been driven over or you walk all over that snow, it really compacts it and it creates a bond with that pavement, which is really hard to break. And so that's when you might need to use that ice scraper.

But getting out there early and often to shovel is going to really be your best bet, especially with these mixed precipitation events because if we do see a mix of snow and freezing rain and sleet, those de-icers is that would get put down might just get washed right away before they even have time to do their job. So the shovel and ice scraper are going to be everyone's friends over the next couple of days hopefully.

**CATHY WURZER:** Say there are some de-icers that are safe for-- they say they're safe for pets and for kids and the environment. Are they truly as safe as they say they are?

**BROOKE ASLESON:** Well, that's a really good question, and I'm glad you brought that up because there are actually no labeling requirements for bags of de-icers. That's across the country, not just Minnesota. And so there really isn't anyone watching or monitoring what information gets put on the bags of de-icer.

They can list some of the ingredients, none of them, and they can put "environmentally-friendly," "pet-safe," all kinds of things, and there's really nobody monitoring that. And there is no standard testing procedure for confirming if a de-icer is, in fact, safe for pets. And so that's one of the downsides is that maybe it's less harmful than some other de-icers, but we don't have a good testing process to say, yep, these de-icers are, in fact, safe for pets. We just don't know that currently.

**CATHY WURZER:** Before you go here, what's the right amount of a de-icer that you should use, even if it's grit or something like that? Do you know? Do you have any research?

**BROOKE ASLESON:** Yeah, so we do have some guidance. So we have a smart salting training program where we actually train professional plow drivers and help them to learn all these different tools and the details of how salt works. And so we've taken that and said that about a 12 ounce coffee mug should be enough salt for about a 20 foot driveway, or 10 sidewalk squares. And so it really does not take a whole lot of salt to start to have that melting happen.

And adding more doesn't speed it up, and it doesn't melt more ice. There's just a fixed amount of snow and ice that that salt can actually melt. And so you just want to find that sweet spot, and that's about a 12 ounce mug over a 20 foot driveway.

**CATHY WURZER:** We have learned something today. Brooke, thank you so much.

**BROOKE ASLESON:** Thank you for having me. I really appreciate it.

**CATHY WURZER:** Brooke Asleson is the director of the chloride program at the state PCA.