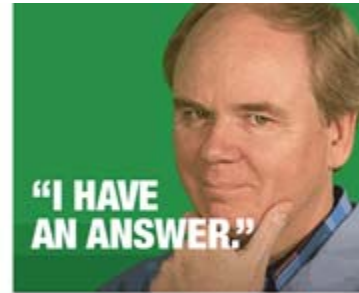


THANK YOU FOR SUBMITTING YOUR QUESTION...



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A Cargill Deicing Technology Product

Your question:

What is the gentlest deicer on dog paws?

My answer:

This is an excellent question that we have been hearing more frequently in recent years, and we have recently been doing some investigation of our own to understand better how deicers affect pets. I have found little published research on the comparative irritation potential of different deicing chemicals. Most of the information available about the effects of deicers on pets is anecdotal. However, people do sometimes report that their pets experience irritation in their paws after walking on a pavement treated with deicer. We have discussed this with a wide range of veterinarians in the snow belt whose experience was generally that reports of paw irritation from deicers were relatively rare but do occur on occasion and there is at present not a good understanding of exactly what causes it. Salt (sodium chloride) is the most commonly used deicing chemical and it is the chemical most often mentioned as being irritating to pet paws. Deicers are formulated from a relatively small number of different chemicals and in principle it seems like it would be straightforward to look up the irritation testing results of these chemicals and compare them, but it turns out to not be so easy. Irritation is often measured in different ways, making it difficult to compare the values reported in different studies and one often finds conflicting reports for the same chemical. Therefore, in order to make an "apples to apples" comparison, we tested a number of common deicing chemicals using the same test method. In order to avoid harming any animals, we ran non-animal tests using an in vitro technique which is being used more commonly to evaluate chemical irritation. This is a "petri-dish test" in which specially grown cultures of skin cells are exposed to the chemicals and analyzed for cell damage which can be related to irritation. Urea and CMA are used in some pet safe deicer products. Urea in particular has been used in several pet safe deicers for a number of years now, and the anecdotal reports appear to indicate that customers do find it to be non-irritating to their pets. In our in-vitro tests we found that both CMA and urea were less irritating than the common chloride deicers (sodium, calcium, and magnesium chloride). However, one of the disadvantages to urea and CMA is that they are less effective ice melters than the chloride salts. We found that a chemical which is similar to CMA, called sodium formate, can be blended with urea to provide higher ice melting capacity at colder temperatures and still retain the low irritation potential of urea (this is the formulation we use for our Sno-Paws™ pet friendly ice melter). So based on the tests we have run, it appears that deicer formulas based on urea, CMA, and sodium formate are gentler to dog paws than the common chloride deicers.

Providing customers with deicing solutions that save lives, enhance commerce and reduce environmental impact.