

THE EFFECT OF SNOW AND ICE MELTERS ON TREES, SHRUBS AND LAWNS

Occasionally customers will question the effect snow and ice melters have on trees, shrubs and lawns that adjoin sidewalks and driveways where the product is being used. Nearly all snow and ice melting products sold in the United States will cause damage when applied in extreme quantities. The chemical responsible for this problem is the chloride found in Potassium Chloride, Calcium Chloride and Sodium Chloride based ice melters. The condition that results from the over application of chloride-containing snow and ice melters is known as Chloride Toxicity.

Chloride Toxicity in trees, shrubs and lawns is ordinarily a minor problem. Chloride is very soluble and leaches rapidly from the soil. If Chloride Toxicity should occur, the application of water will normally wash the chlorides from the soil and reverse the toxic condition.

Listed below is a comparison of the amount of chlorides that would be contained in the brine solution when melting 100 lbs. of ice at 12 degrees F.

<u>CHEMICAL*</u>	<u>LBS.REQUIRED TO MELT 100# ICE</u>	<u>TOTAL CHLORIDES LBS. USED</u>
CALCIUM CHLORIDE	15.6	9.95
POTASSIUM CHLORODE	19.8	9.40
SODIUM CHLORIDE	15.0	9.10

As you can see from the chart there is a small but significant difference in the amount of Chlorides released when using any of the above deicers. When used as directed with the possible exception of Calcium Chloride based deicers the probability of tree, shrub and lawn damage is highly unlikely.

*Melting point data taken from LANGE'S HANDBOOK OF CHEMISTRY.