

Chemicals Used to Melt Ice

Name	Formula	Lowest Practical Temp	Pros	Cons
Ammonium sulfate	$(\text{NH}_4)_2\text{SO}_4$	-7°C (20°F)	Fertilizer	Damages concrete
Calcium chloride	CaCl_2	-29°C (-20°F)	Melts ice faster than sodium chloride	Attracts moisture, surfaces slippery below -18°C (0°F)
Calcium magnesium acetate (CMA)	Calcium carbonate CaCO_3 , magnesium carbonate MgCO_3 , and acetic acid CH_3COOH	-9°C (15°F)	Safest for concrete & vegetation	Works better to prevent re-icing than as ice remover
Magnesium chloride	MgCl_2	-15°C (5°F)	Melts ice faster than sodium chloride	Attracts moisture
Potassium acetate	CH_3COOK	-9°C (15°F)	Biodegradable	Corrosive
Potassium chloride	KCl	-7°C (20°F)	Fertilizer	Damages concrete
Sodium chloride (rock salt, halite)	NaCl	-9°C (15°F)	Keeps sidewalks dry	Corrosive, damages concrete & vegetation
Urea	NH_2CONH_2	-7°C (20°F)	Fertilizer	Agricultural grade is corrosive