

Deicing Chemicals

Lowest Practical Melting Temperatures

Chemical	Lowest Practical Melting Temperature
CaCl₂ (Calcium Chloride)	-20° F
KAc (Potassium Acetate)	-15° F
MgCl₂ (Magnesium Chloride)	5° F
NaCl (Sodium Chloride)	15° F
Urea & KCl (Potassium Chloride)	20° F
CMA (Calcium Magnesium Acetate)	20° F
Sand/Abrasives	Never melts – provides traction only

General Characteristics

CaCl₂ (Calcium Chloride)

Draws water from the air to speed melting. Can be liquid or solid. Powerful deicer, but very corrosive & higher cost. If applied incorrectly, can cause slippery conditions.

KAc (Potassium Acetate)

Liquid. Contains no chlorides. Biodegradable and less corrosive. High cost. If applied incorrectly, can cause slippery conditions.

MgCl₂ (Magnesium Chloride)

Draws water from the air to speed melting. Can be liquid or solid. Good deicer, but higher cost. If applied incorrectly, can cause slippery conditions.

NaCl (Sodium Chloride)

Most commonly used deicer due to low cost. Very corrosive. Delivered as solid rock salt or made into brine.

KCl (Potassium Chloride- Potash)

Fertilizer. Needs to be used at higher rates of application. Can be liquid or solid. Can burn foliage.

Urea

Fertilizer. Needs to be used at higher rates of application. Contributes nitrogen to receiving waters.

CMA (Calcium Magnesium Acetate)

Can be solid or liquid. Contains no chlorides and less corrosive. Can be used as a corrosion inhibitor when added to other deicers. Very costly. May be best choice for environmentally sensitive areas.