

Description

Acetate-based deicers including potassium acetate (KAc), calcium magnesium acetate (CMA), and sodium acetate (NaAc), can be an alternative to chloride-based deicers as they provide a low effective temperature, are less corrosive to metals, and have generally lower environmental impacts. Due to their higher cost, acetate-based deicers tend to be used as airport deicers and in areas where corrosion of metal is a concern.

Pros



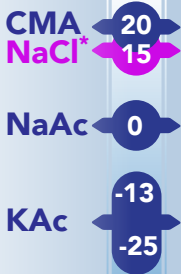
- Low effective temperature
- Non-corrosive to mild steel

Cons

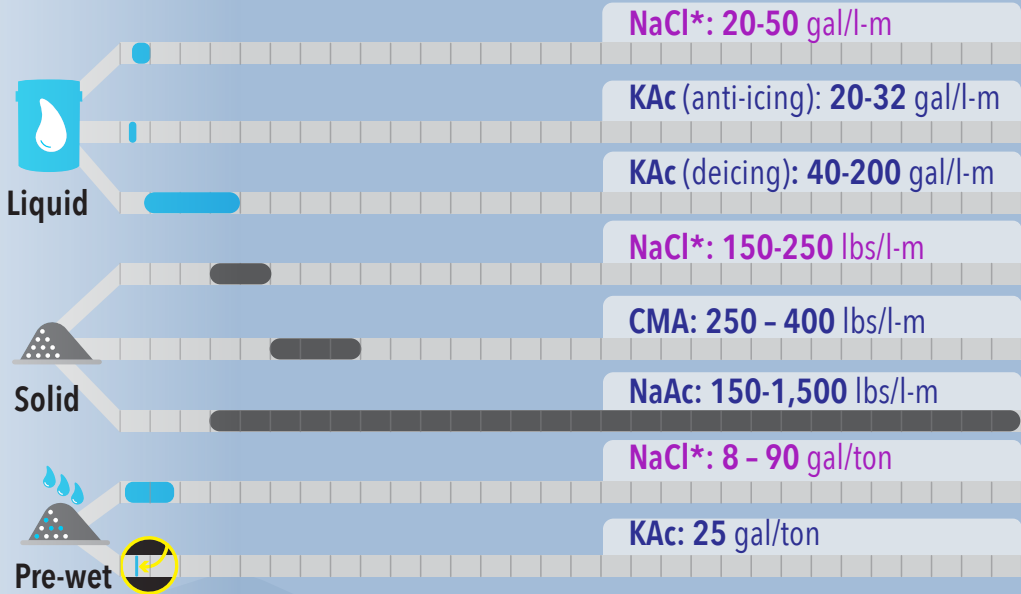


- Expensive
- Damaging impacts to pavements (concrete and asphalt)

Effective temperature °F



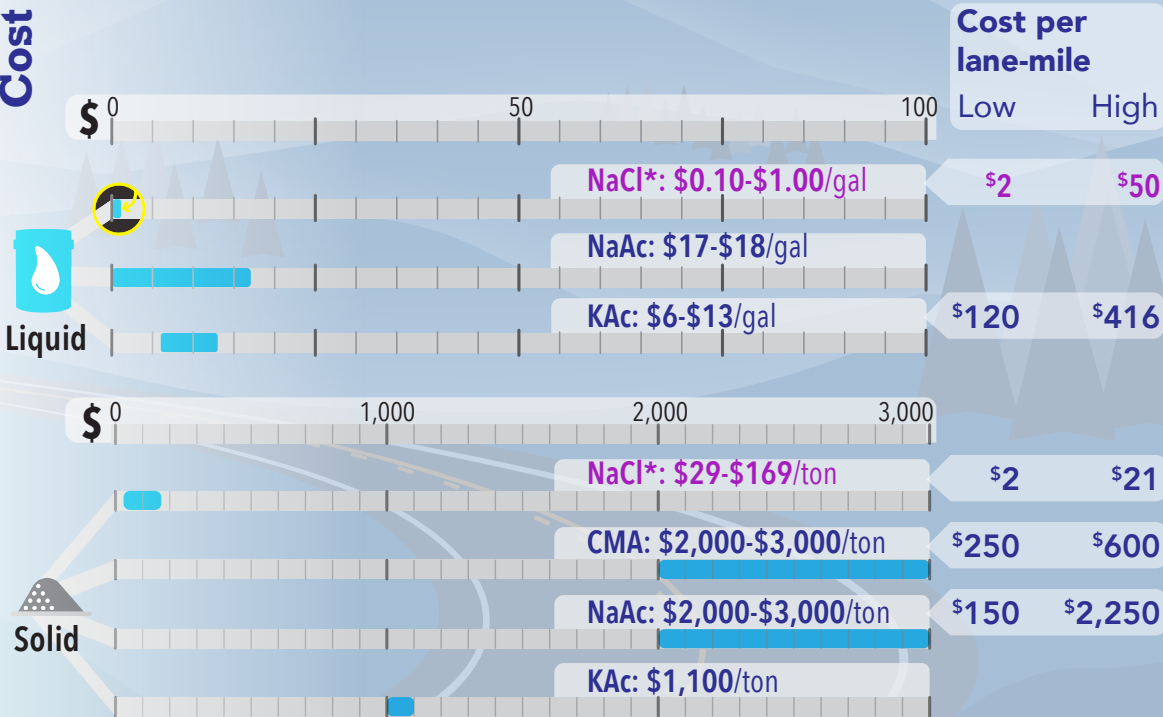
Application Rate

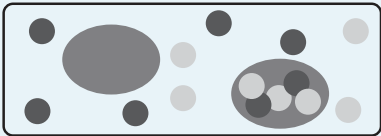

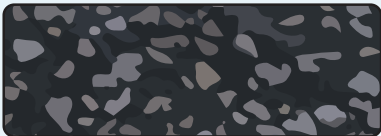
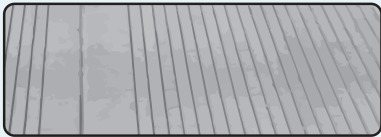
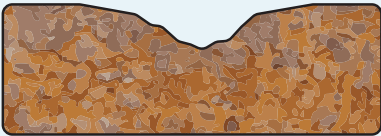
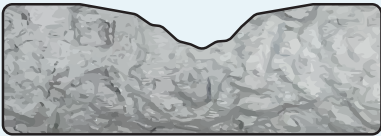


Eutectic temperature °F



Cost



	Impacts	NaCl*	CMA	NaAc	KAc
	BOD COD	Low	Moderate to High	Moderate to High	Moderate to High
	Ecological Toxicity	Low to Moderate	Low to Moderate	Low	Low to Moderate
	Asphalt Pavements	Low to Moderate	Moderate	Moderate	Moderate
	Concrete Pavements	High	Low	Moderate to High	High
	Mild Steel Corrosion	High	Low	Low	Low
	Galvanized Steel Corrosion	High	High	High	High

Storage and Handling

- All equipment surfaces that are frequently exposed to deicing products should be routinely rinsed with warm water to prevent accumulation.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- All liquids should be stored with secondary containment.
- All solids should be stored on non-permeable surfaces and covered from the elements.



* NaCl is included as a reference for comparison to the non-chloride deicers in this data sheet.