

Chloride Free Ice Control Products For Homeowner Use

Prepared January 2023 by LSPA - not all inclusive

Chemical Used to Lower Freezing Point	Format	Product Name	Claimed/recommended by manufacturer			Website	Cost	Environmental Impacts Based on Past Research	Where To Buy (not all inclusive)
			Freeze Point (F)	Shelf Life	Application				
Potassium Formate ¹	Liquid - need sprayer to apply	Entry Chloride Free	-10	Unlimited	1500 ft ² per gallon	Entry Chloride Free	\$45 per gallon	① Biodegradation of formate consumes small amounts of oxygen in water harming fish and other organisms. ② Formate may weaken the binders in asphalt and cause damage to concrete and mortars via a alkali-silica reaction. ③ Excess potassium may affect populations of certain crustaceans.	Amazon, Ace, True Value
		Bare Ground Clear Way	-63		1000 ft ² per gallon	Bare Ground Clear Way	\$20 per gallon		Bare Ground, Home Depot, Amazon, eBay, Northern Tool, Quill, Gardeners Edge, Zoro
Potassium Acetate ²	Liquid - need sprayer to apply	Bare Ground Clear Way	-4			Bare Ground Clear Way	\$25 per gallon	① Biodegradation of acetate consumes oxygen in water harming fish and other organisms. ② Acetate is corrosive to galvanized steel. ③ Excess potassium may affect populations of certain crustaceans.	Bare Ground, Home Depot, Amazon, eBay, Northern Tool, Quill, Gardeners Edge, Zoro
		The Andersons Ice Vise (not stated but likely consists of potassium acetate)	-4			Ice Vise	\$40 per gallon		The Andersons, Amazon, hardware stores
Sodium Formate	Solid granular	Bare Ground Jet Way	-15		1.5 oz per square yard	Bare Ground Jet Way	\$100 per 50lb box	① Biodegradation of formate consumes small amounts of oxygen in water harming fish and other organisms. ② Formate may weaken the binders in asphalt and cause damage to concrete and mortars via a alkali-silica reaction. ③ Can lead to elevated levels of sodium in drinking water wells.	Bare Ground, Home Depot, Amazon, eBay, Northern Tool, Quill, Gardeners Edge, Zoro
Proprietary - propylene glycol ³ mix with urea ⁴	Solid granular	Safe Paw by Gaia	-2	Unlimited	100ft ² per pound	Safe Paw	\$25 per 8lb box	① Biodegradation of urea and glycol consumes large amounts of oxygen in water harming fish and other organisms. ② Excess nitrogen can pollute ground & surface waters and stimulate plant growth	Amazon, Home Depot, Petco, Chewy, hardware stores
		Safe Thaw by Gaia	-2	Unlimited	100ft ² per pound	Safe Thaw	\$30 per 10lb box		Amazon, Home Depot, Petco, Chewy, hardware stores
		Ready Go with Traction Agent	-2	Years in dry location		Ready Go	\$30 per 8lb box		Ready Go, Amazon, hardware stores

LSPA Recommended

¹Formic acid is a colorless organic acid found in certain ants. It is produced and used in a wide range of applications including a preservative in animal feed, a processing additive for textiles, a cleaning product additive, and a chemical additive in pharma and oil/gas industries. It is also used to suppress bee mites.

²Acetate is the salt or ester form of acetic acid (vinegar).

³Propylene glycol is a colorless, nearly odorless thick liquid added to many products including food to help maintain consistency, moisture and texture. Because of its low melting point, it's also used as an antifreeze.

⁴Urea is a colorless crystalline solid containing high amounts of nitrogen. It is used as a fertilizer, animal feed supplement, and in the formation of many products.