



# provifrost

a proviron brand



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## Cryotech **NAAC**<sup>®</sup>

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### High performance solid de-icer

Cryotech **NAAC**<sup>®</sup> is a high performance solid de-icer for airport runways, taxiways and aprons.

It is a 97% anhydrous sodium acetate with less than 1% inhibitors by weight.

Cryotech **NAAC**<sup>®</sup> contains no chlorides, has excellent melting properties, works faster than urea and sodium chloride, is active at low temperatures (-18C°) and requires less material to achieve similar effectiveness.



Cryotech NAAC <sup>®</sup> specifications		
	Value	Unit
Bulk Density	0,80 – 0,86	g/cm <sup>3</sup>
pH, in a 15% solution	8 to 10,5	
Shape	Spherical pellet	

## Storage and Handling

NAAC<sup>®</sup> works fast because it quickly absorbs water. Packaged product should be kept indoors in a dry environment, in its original packaging until use. Foresee adequate ventilation. NAAC<sup>®</sup> may be applied with existing solid de-icer spreading equipment. Spreaders should be calibrated for accurate application. It is strongly recommended to routinely rinse the exterior of the application equipment with warm water to prevent by-products of the acetates biodegrading process causing staining/corrosion. Do not store loaded spreading equipment outside. Like any solid de-icer, excessive handling may cause dustiness. Wear suitable protective clothing (safety glasses with side shields and rubber gloves).

## Environmental and toxicology information

Tests have been performed according to the AMS1431 standard by Scientific Material International (SMI).

	Value	Unit
BOD5	0,39	kg O <sub>2</sub> /kg
COD	0,87	kg O <sub>2</sub> /kg
Acute Toxicity to Daphnia Magna – 48 hours LC50	3500	mg/L
Acute Toxicity to Fish – 96h/LC50	3750	mg/L

Pavement temperature (°C)	Dry Pavement Anti-icing	Wet Pavement	Frost/Ice (Up to 1 mm)	Ice (1 to 2,5 mm)	Ice (> 2,5 mm)*	Freezing Rain** Active Wet Snow** Heavy snow pack
	g/m <sup>2</sup>	g/m <sup>2</sup>	g/m <sup>2</sup>	g/m <sup>2</sup>	g/m <sup>2</sup>	g/m <sup>2</sup>
0 to -5	20-25	25-35	25-35	30-40	45-65	45-65
-5 to -10	30-40	35-45	40-50	40-50	50-75	50-75
Lower than -10	35-40	45-50	45-55	45-55	50-100	50-100

\* To remove heavy ice, it is usually recommended to apply de-icer, allow it time to work (15-25 min.), then plow and broom to remove slush before it refreezes. If precipitation remains on the pavement surface, re-apply de-icer and repeat this process.

\*\* Application rates are higher due to dilution during active precipitation.

## Application

NAAC<sup>®</sup> can be used as both anti-icer and de-icer. Suggested application rates can be found in the below table. One must however consider factors like surface material, surface structure, ambient temperature and the quantity and quality of the ice pack. Careful monitoring of the weather conditions as well as consulting records of past events will provide you with a lead on upcoming bad weather and guide you in preventive application of the product.

## Pre-wetting

NAAC<sup>®</sup> is most effective as a de-icer when pre-wet at the spreader spinner with a liquid de-icer (Cryotech E36<sup>®</sup>, Provifrost<sup>®</sup> KA ECO or Provifrost<sup>®</sup> KF ECO). Begin at 10% liquid de-icer by weight NAAC<sup>®</sup> and adjust for local conditions.

## Anti-icing

Apply just as the storm event begins. With a small amount of precipitation on the surface – freezing rain, ice or snow - NAAC<sup>®</sup> will activate and keep ice bonds from forming at the surface. This anti-icing strategy is an effective addition to liquid anti-icing during freezing rain conditions.

## De-icing

Our advice is to treat the surface mechanically before applying NAAC<sup>®</sup>. NAAC<sup>®</sup> may be used in conjunction with a liquid de-icer to solve serious pack conditions. First apply NAAC<sup>®</sup> to the pack. After holes are punched in the pack, apply the liquid de-icer. The liquid then has a path to the surface and quickly breaks the pack prior to further mechanical removal.

The table below must be looked at as a guideline and not as a recommended dosage. Proviron Industries will gladly further advise you on the use and application of this de-icer.