Technical Data Sheet - Clearway® 6s Runway Deicer

Product description

Clearway® 6s is an environmentally friendly solid acetate based runway deicer. Due to it's irregular shape, it has excellent de-icing properties , either it is used by itself or in combination with liquid Clearway products. The product meets the requirements in the AMS1431B specification.

When applied with the mechanical facilities of airport maintenance departments , Clearway® 6s allows snow and ice to be removed quickly and economically

Clearway® 6s melts the ice by depressing the freezing point of water, and will be active at temperatures down to – 15°C.

Appearance	White, irregular granule
Bulk density	600 – 800 kg/m^3
Particle size	0.5 – 4 mm
PH (10% solution)	8.0 – 10.0

Environmental and toxicology information

Tests have been performed according to German standards by the Hygiene Institute des Ruhrgebiets , and according to the AMS 1431B standard by Scientific Material International (SMI) in USA.

BOD_5		320	mg O_2/g
COD		561	mg O_2/g
Acute toxicity to Daphnia Magna	EC_{50} (48 h)	11.670	mg/l
Acute toxicity to Fish	LC_{50} (48 h)	8.900	mg/l
Acute toxicity to Bacteria	EC_{50} (16 h)	72.600	mg/l
Acute toxicity to Algae	EC_{50} (72 h)	85.600	mg/l
Acute oral toxicity	LD_{50} (rat)	> 3.500	mg/kg

Storage and handling

Clearway® 6s is delivered ready to use .In dry conditions Clearway® 6s can be used pre-wetted with one of the liquid Clearway products. Clearway® 6s is available in 500 kg big-bags and 25 kg bags. Clearway® 6s has been specially formulated to prevent caking in the bags. We advise to store Clearway® 6s in its original bags.

Clearway® 6s is compatible with most known materials used at airports, both related to equipment for storage and equipment for applying the product.

The table below list materials that have been shown to be compatible with Clearway® 6s

METALS	**POLYMERS**
Stainless Steel	Polyethylene Plastics
Carbon Steel	Glass fibre reinforced polyester (high pH resistant resin)
Aluminium alloys (bare & anodized)	Polymethacrylate
Magnesium alloys (wrought, dichromate	Acrylic plastic
Treated and epoxy coated	Polychloroprene
Titanium	Silicone
Cadmium plated steel	Vulcanized butadiene-acrylonitrite
Copper (acid pickled)	Vulcanized butadiene-propylene
Bronze (copper/tin)	Painted surfaces
	Bitumen

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Material non-compatability

Clearway® 6s shows moderate corrosive effect on zinc, galvanised material, solder and silver , and these materials should therefore be avoided.

Application

Suggested application rates can be found in the table below. It is however important to take into consideration factors like surface material, surface structure, application-method and current weather situation when using the product. The figure below is therefore only a guide for application and must not be regarded as recommended dosage. Kemira will upon request give advise on application for the respective airport.

In the event of freezing rain, a preventive treatment of runways, ramps and taxiways is highly recommended. Applying Clearway® 6s before the start of a light snow or ice event prevents frozen precipitation from accumulating. Since Clearway® 6s is both an anti-icing agent as well as a deicer, timely application of Clearway® 6s is essential to the continued use of operative surfaces.

Careful monitoring of meteorological conditions will keep you ahead of storm events, and guide you in preventive application of the product.

Clearway® 6s can be used with all known existing spraying equipment for solid deicers.

To achieve maximum performance, Clearway® 6s can be pre-wetted with 25-50% w/w liquid Clearway deicer.

Mechanical removal of ice and snow in front of the de-icing operation will reduce the amount of Clearway® 6s needed for an efficient operation.

Suggested application rates

	No mechanical snow clearing			After / During mechanical snow clearing	
	Frost or Freezing rain	Frost / Thin Ice	Frost/Snow	Wet conditions	Heavy wet conditions
	Anti-Icing	De-Icing	De-Icing	De-Icing	De-Icing
0 to – 15°C	30 gr/m^2	30 gr/m^2	60 gr/m^2	45 gr/m^2	60 gr/m^2

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