



THE NATURAL CHOICE FOR DE ICING



During the winter season CC road is the natural choice for de icing. Just as with dust binding, CC road can be used as both flakes and liquid to make the winter road safe. CC road have successfully been used for de icing in Russia, Canada and northern USA, as well as in many European countries for decades.



De icing with flakes

De icing with flakes is a very efficient method to get rid of snow and ice on pavements, parking lots, entrances and driveways. CC Road can also be used on sensitive roads where quick de icing is important to maintain traffic safety. Dosage for CC road for this type of de icing is 5-30 grams/m².

Features for CC road in flakes for de icing:

- Quick de icing method
- Low freezing point
- Absorbs humidity
- Exothermic (gives off heat)
- Efficient to -25°C
- Efficient on pavements, parking lots, etc

De icing with pre wetted salt

Normal dosage at pre wetting salt with CC road is 250-300 litres of CC road at a concentration of 32% per metric ton salt.

- More salt will stay on the road
- Lower effective temperature than just salt
- Quicker effect than only dry salt
- Cost efficient compared to dry salt

De icing with liquid

Treatment with liquid CC road gives a speedy effect, especially as preventive de icing. Liquid CC road has a low freezing point and can be used down to -25°C. The content of active substance in CC road is higher compared to sodium chloride. CC road is easy to use and the same equipment, that is used for spreading liquid sodium chloride can be used for calcium chloride without any alteration. CC road in liquid form for de icing have a number of advantages compared to the other de icing agents.

- Low freezing point
- Active substance is 40% higher compared to sodium chloride.

- High density
- Is efficient to -25°C
- Lower dosage than for sodium chloride (salt)
- CC road is manufactured in a carefully controlled industrial process which gives a clean product with accurate concentration.
- No heating in storage tanks for CC road is necessary.

Sand

In some situation it is desirable to use sand to increase friction. Also here CC road has its given purpose. During winter time, untreated sand will freeze which cause problems in handling and distribution, (for example clogging of sand spreader and other equipment). These problems can easily be avoided by treating the sand with a CC road liquid which, dramatically, lowers the freezing of the water in the sand and makes the sand free flowing down to -10°C. Suitable dosage is 5-10 kg of 32% CC road per MT sand, of course dependable on the humidity in the sand.

CC road and the environment

Road salts do not contain any organic substances and is not considered dangerous to the environment. When the concentration becomes too high the environment can be negatively affected. Use CC road with a well adjusted minimum dosage.

Safe deliveries from the Nordic countries

CC road is produced in Sweden, Finland and the Netherlands. CC road is always close to the market which makes it possible to fulfil the customers need. To ensure quick and safe deliveries of CC road, we have built a network of transporters and distributors and we have local terminals in Europe.

Dosage

Dosage is dependant on a number of factors. Generally the table below can be used to give an idea about how to dose.

Temperature °C	Snow None	Snow Light*	Snow Medium**	Snow Heavy***
Over 0	2g/m ²	2g/m ²	5g/m ²	5g/m ²
=0	2g/m ²	5g/m ²	7g/m ²	10g/m ²
0 to -3	2g/m ²	5g/m ²	7g/m ²	15g/m ²
-3 to -15	5g/m ²	10g/m ²	15g/m ²	20g/m ²
-10 to -15	10g/m ²	10g/m ²	20g/m ²	25g/m ²

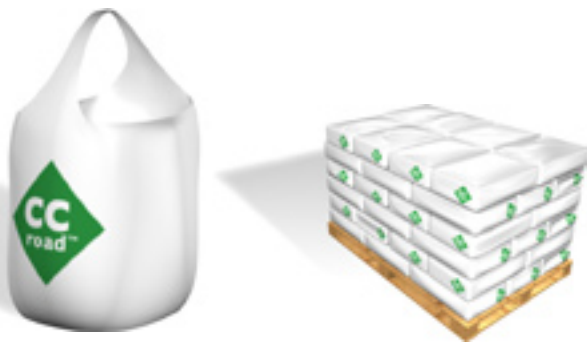
* Up to 0.5 cm snow/hour. ** Between 0.5 cm – 4 cm snow/hour. *** More than 4 cm snow/hour.

TETRA Chemicals Europe takes responsibility

Within TETRA Chemicals Europe we have an environmental policy which states that our operations should not have any disturbing impact on the environment. Our company and products will be regarded as an important and beneficial part of society. Production of CC road is certified according to ISO 9001 and ISO 14001.

Packaging and recycling

CC road is available in 25 kg and 1000 kg plastic bags of high quality and can be stored for approximately two years under the right conditions. Liquid CC road is delivered as bulk in tank trucks.



CC road can be delivered in plastic bags of 25 kg or 1000 kg.



CC road in liquid form is delivered as bulk in tank trucks.



TETRA is the largest producer of Calcium Chloride in the world. Beside several plants in US we have production in Sweden, Finland and in the Netherlands. We can offer both liquid and solid Calcium Chloride in Road, Food and Technical grades. In order to guarantee quick and safe deliveries we have built up an efficient network of transporters and distributors in Europe.

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