

Highway Application and Product Handling Guidelines

Cryotech CMA® is a solid calcium magnesium acetate - a low corrosion, environmental alternative to ordinary deicers like road salt, calcium chloride, magnesium chloride and urea. CMA is selected when concrete damage, corrosion, or the environment are issues for winter operations. CMA works differently than ordinary deicers. However, when used according to these guidelines, it is just as if not more effective.

PLEASE READ THE PRODUCT MSDS PRIOR TO HANDLING

**CMA
Works
Differently**

CMA pellets are exothermic; they release heat and burrow to the surface:

- ❖ Early application of CMA (as the snow begins to fall and prior to ice formation) will significantly improve its performance.
- ❖ CMA does not create a flowing brine.
- ❖ CMA takes longer than salt to deice (about 10-20 minutes).
- ❖ Manually remove snow after surface bonding is broken.

CMA sticks to the surface, giving residual, anti-icing action:

- ❖ Better than salt at preventing pack.
- ❖ Spreads evenly across the entire lane.
- ❖ Continues working and requires fewer applications.

CMA weighs 44 lbs/ft³:

- ❖ CMA gives denser, more uniform coverage - more particles per square foot.
- ❖ Proper equipment calibration is important to compensate for density.

At Equal Application Rates:

CMA Coverage = 44 lbs/ft³

Salt Coverage = 70 lbs/ft³

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CMA comes in two packaging options:

- ❖ 2205 lb (1000 kg) Super Sacks (1 per pallet, minimum 1 pallet).
- ❖ 55 lb (25 kg) poly bags (40 per pallet, minimum 1 pallet).

Procedures for handling and emptying packages:

- ❖ CMA pellets have a natural tendency to loosely stick to one another during storage. If the package exterior feels stiff to the touch, the product may have compacted in storage. If compaction does occur, the following procedures for emptying the packages are recommended.
- ❖ 2205 lb (1000 kg) Super Sack - use forklift to lift by straps, drop bag a short distance onto the floor (2-3 times) to loosen any compacted product. Then use the drawstring chute at the bottom of the bag, or use a knife to slit the bottom, and allow product to flow.
- ❖ 55 lb (25 kg) poly bag - drop bag onto hard surface 2-3 times (similar to the way you loosen a bag of ice).

**CMA Has
Improved
Coverage**

**CMA
Packaging/
Handling**

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CMA Application

CMA Application:

- ❖ Start applying 25-50% more CMA than salt per application by weight (typically 300-400 lbs/lane mile). After operators gain experience, CMA application rates may be reduced to optimal levels for local climate.
- ❖ Apply just as surface turns white, snow begins to stick, or ice begins to form. Premature application may result in product loss from traffic or wind. Late application reduces effectiveness.
- ❖ After application allow enough time to plow; expect good plow runs.
- ❖ Spread CMA across the entire lane.
- ❖ Re-apply when new snow accumulation shows first tendency to pack or when roadway starts to refreeze.
- ❖ Like road salt, product effectiveness diminishes below 20°F (-7°C).

CMA Can be Prewet

Prewetting CMA:

- ❖ CMA's effectiveness is enhanced when prewetting it with Cryotech CF7® at the spreader spinner.
- ❖ Prewetting causes CMA to stick and begin melting almost immediately after application.
- ❖ The freezing point of the combined products is lower than that of pure CMA.

Keep CMA in Dry Storage

CMA Storage:

- ❖ CMA may cake in equipment if it gets wet. Don't park loaded spreading equipment outside in the weather.
- ❖ Keep equipment exterior surfaces clean.
- ❖ If overhandling causes dust, wear a paper dust mask and goggles.

CMA Treated Snow Looks Different

CMA treated surfaces are drier:

- ❖ Lighter, fluffier snow is easier to shovel or plow.
- ❖ Oatmeal appearance means good traction - not likely to pack with traffic.
- ❖ After the storm, CMA treated surfaces are dark and markings are clearly visible.

CMA and Sand

CMA/Sand Mixtures:

- ❖ Applications of straight CMA followed by plowing and sanding give the best results.
- ❖ If mixing CMA with sand, blend it like salt/sand mixtures. Six parts CMA by weight to four parts sand is a common practice.
- ❖ Use 5% CMA by weight to keep sand piles free flowing in freezing weather.

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