SALT WARNING

MICHIGAN CONCRETE ASSOCIATION

ICE MELTERS CAN DAMAGE NEW CONCRETE

Ice melters, even those advertised as “safe for concrete”, can cause damage to concrete, particularly new concrete. When ice and snow melt, the water soaks into concrete, then can refreeze when the temperature drops. When water inside the concrete freezes, it expands which exerts internal pressure throughout the concrete, which can cause tiny cracks to form. When this is repeated through multiple cycles of snowfall and melting, the cracking can cause small pieces of the sidewalk surface to flake off, leaving unsightly marks on the sidewalk.

When concrete is first poured it becomes strong enough to walk on within a day, and can handle car traffic within 7 days, even though it continues to develop strength gradually over time (even up to 90 days). It can take up to one year for concrete to fully “dry out.” Therefore, concrete in its first year is more susceptible to the pressures of freeze/thaw cycles. Salt products do provide ice control, but many of the products on today’s market attract water to the surface long after the ice has been removed. This extends the “drying out” period of new concrete and increases the potential for damage.

WHAT ABOUT SLIP AND FALL HAZARDS?

Using sand for traction on new concrete is the best for the concrete, but may be undesirable for tracking. While the best thing for the concrete would be to use no ice melters at all, the need to eliminate slip and fall hazards is clearly more important than aesthetics, which is why ordinary rock salt (sodium chloride) is recommended.

WHY THIS PRODUCT?

Sodium Chloride is ordinary rock salt. Sodium chloride itself is not corrosive to concrete, but can still damage new concrete as described above. Many ice melt products include a blend of sodium chloride, magnesium chloride, calcium chloride, or other compounds. Some of these compounds can actually be corrosive to the portland cement in the concrete, which can cause pits to form in the surface of the sidewalk. This is in addition to the flaking which can occur from the freeze/thaw cycles.

The following deicer products can be found at local hardware/home improvement stores and contain only sodium chloride (NaCl) and should be safe for properly cured and sealed concrete.

1. Morton Safe-T-Salt
2. Safe Step Rock Salt, Standard 3300 Ice Melter
3. Merit Hall bulk road salt, 98% NaCl
4. Compass Minerals / North American Salt bulk road salt
5. Cargill bulk road salt, 96% NaCl

HOW MUCH SHOULD I USE?

Please use only enough to provide traction over slippery areas, after snow removal has been completed. Please remove any accumulated slush after the salt has started working. Please do not blanket the sidewalk with salt in advance of an anticipated snowfall.

FOR MORE DETAILED INFORMATION: Call your local concrete contractor, ready-mixed concrete producer or **www.miconcrete.org**

CONCRETE CARE AND MAINTENANCE

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CONGRATULATIONS!

You are a new concrete owner. You have made an investment that will add value and aesthetics to your project for years to come. Like any building material, concrete requires some maintenance to maximize its service life. MCA recommends the following practices:

TIME FRAME: IMMEDIATELY

Cure the Concrete: Curing is a process that provides a moist environment that prevents newly placed concrete from drying out. In cold weather, additional protection is required to prevent the newly placed concrete from freezing.

Curing is a critical step in any concrete project as proper curing maximizes the strength and durability of concrete. As soon as texturing is completed, the curing process must begin within 30 minutes.

You and your concrete contractor should use one of the following methods to cure your concrete: Curing Compounds, Saturated Covering (Wet Burlap), Plastic Sheets or Soaker Hoses (the key is to not allow the concrete to dry out).

In cold weather, concrete should be covered with insulated blankets to prevent the concrete temperature from falling below freezing until it has reached open to traffic strength. The minimum protection period is 3 days.

Visit **www.miconcrete.org** for additional details on concrete curing.

TIME FRAME : 30 DAYS+

Seal the Concrete: Concrete sealers are chemical compounds that are applied to the concrete surface. These products work by water proofing the concrete surface and preventing the penetration of water and harmful substances. Sealers are clear liquids that soak into the concrete and dry providing a protective coating to the surface. These are typically sprayed on or applied with a paint roller at a rate specified by the supplier.

MCA recommends a high quality silane and/or siloxane sealer be applied. Your contractor or concrete supplier can provide recommendations on what products to use. The sealer manufacturer's instructions on surface preparation and application rates should be strictly adhered to.

Be sure to ask your concrete contractor what products they used to cure your concrete. Special steps may be needed to prepare the concrete surface for sealing if certain products were used.

TIME FRAME: BEYOND 30 DAYS

Regular Maintenance: Follow your sealer manufacturer's recommended reapplication schedule. Typically, sealers will need to be reapplied every three to five years. You can spot check portions of your concrete to determine when sealers need to be reapplied. When water no longer beads on the surface of the concrete, it is time to reapply a sealer.

Protecting Your Investment: Heavy loads, landscaping/drainage/downspouts.

Cold Weather: AVOID using deicing chemicals on the concrete for the first winter. Instead, sand can be used for traction. (see reverse side for details)

After the first winter, always be sure to check the labels on deicers. Never use products which contain magnesium chloride or calcium chloride. Sodium chloride (commonly known as rock salt or table salt) is the safest deicer for use on concrete. Fertilizer should never be used as a deicer.