



Mr Iceman's Dry Ice "Other Uses" Information

Camping & Travelling With Dry Ice

Plan on using 5 to 10 Kg of dry ice for every 24-hour period depending upon the size of the ice chest. Dry Ice will keep everything frozen in this ice chest, including extra ice, so keep non-frozen goods to be refrigerated with regular ice in a separate ice chest. Dry Ice typical block size is 5kg with approximate dimensions of: 160mm x 80mm x 250mm. Plan to put 2.5cm² each 40cm of ice chest length. This will work out to 2 blocks (10kg) for an average 45Ltr cooler. For larger containers & longer camping or travelling times, multiply dry ice quantities by these rates. Dry Ice, at -109.0°F or -78.5°C, will freeze & keep frozen everything in its container until it is completely sublimated. These frozen items will take some extra time to thaw because they have been so cold.

Cold Grinding / Metalwork

Dry ice keeps hard to grind materials such as Plexiglas, PVC Resins, Vinyl, & Epoxy Brittle for fast & easy flash removal. Dry ice is ideal for shrink fitting metal. Metal parts are immersed in dry ice prior to fitting. After the parts are fitted, they are warmed to room temperature & a strong fit is achieved.

De-flashing

Rubber parts are tumbled in a barrel with dry ice, making them brittle to facilitate flash removal.

Events & Celebrations

Dry ice creates a spectacular smoke & fog effect that is perfect for birthdays, weddings, theatre, & Halloween. It can also be used in class experiments in order to raise students' interest in science.

Lab Use

Dry ice is used for low temperature testing & is often used for transporting specimen samples.

Medical

Doctors, to freeze skin for wart removal, use Dry Ice or liquid nitrogen. Many medical offices ship biological specimens in Dry Ice for laboratory testing or further processing. Dry Ice is also used to keep bone marrow frozen when it is shipped.

Perishables

Wild game & fish can be packed in dry ice for transport.

Transporting Plants

Dry Ice will keep flowers cool & delay blooming. Maintaining ready to flower plants at 1.5°C will retard blooming. Do not allow Dry Ice to get too close & freeze plants.

Disposal

When finished with the Dry Ice, unwrap & leave it at room temperature in a well-ventilated area. It will sublime from a solid to a gas. DO NOT leave Dry Ice unattended around children. If you would like a fantastic simulated volcano, run hot water & put the remainder Dry Ice in your garbage disposal. Use safety goggles & stand back. This will make a marvellous eruption.

Plant Growth

A small additional amount of Carbon Dioxide will increase the rate of plant growth.

Chemical Retardant

Its low temperature slows or stops some chemical reactions. It is used to store & ship special adhesives. It is also a neutralizing agent for alkalis.

Pressurizing Agent

When Dry Ice changes from a solid to a gas it absorbs heat & expands to over 800 times its original volume.

Inerting Medium

Dry Ice will replace oxygen in a container preventing or putting out fires. It is used to safely remove underground gas storage tanks.

Shrink Fittings

Dry Ice will shrink metal to slide on sleeves, bushings or bearings. Add Dry Ice to a 90% pure alcohol bath to create a cold liquid near -78°C that can be used like liquid nitrogen.

Deflashing Moulded Plastics & Rubber

Dry Ice will cool & shrink whatever it touches. Rubber parts are tumbled in a barrel with Dry Ice, making them brittle for easy flash removal. It is used in cold grinding of Plexiglas, PVC resins & vinyl's.

Fresh Meat Processing

Dry Ice will keep the temperature cold & reduce spoilage while processing meat. This is used in industrial processing of ground meats & sausages.

Mosquitoes

CO₂ **may** attract mosquitoes away from animals & people. Place pieces of Dry Ice away from areas where people are congregating. The theory is that mosquitoes find animals & people by their CO₂ exhaled during breathing.

Baking Industry

Dry Ice is used in mixing ingredients & retarding yeast growth until the proper time.

Freeze Fresh Strawberries Perfectly

Wash fresh strawberries

Place directly on top of dry ice in cooler for about 20-30 minutes, Close cooler

Remove when solid

Place in freezer safe plastic bag, mark with date

Place in freezer - to thaw take out & set on plate at room temp (use within a year to be sure freshness)

They will thaw almost like fresh - without being soggy like usual frozen strawberries are.

I suppose this might work for other fruits & veggies because of the quick freeze time, not allowing them to get soggy..."