# What is dry ice?

Dry ice is solidified carbon dioxide. When dry ice melts, it turns into carbon dioxide gas. Carbon dioxide gas is always present in the environment, but in low concentrations. It is colorless and odorless.

## Are there any special precautions I should take when using dry ice?

There are a number of important precautions to take when handling dry ice:

- Dry ice is much colder than regular ice, and can burn the skin similar to frostbite. You should wear insulated gloves when handling it. Wear safety glasses and a face shield if you are cutting or chipping it.
- Keep dry ice out of the reach of children.
- Never eat or swallow dry ice.
- Avoid inhaling carbon dioxide gas.

## Can I actually suffocate from dry ice?

Dry ice can be a very serious hazard in a small space that isn't well-ventilated. As dry ice melts, it turns into carbon dioxide gas. In a small space, this gas can build up. If enough carbon dioxide gas is present, a person can become unconscious, and in some cases, die.

## Can I use dry ice in a walk-in cooler or freezer?

It is very dangerous to use dry ice in a walk-in freezer, cooler, closed truck bed, or other small space with poor ventilation. A large amount of dry ice in a walk-in cooler or freezer can produce a great deal of carbon dioxide, which can possibly be fatal to someone entering that space.

## What are signs of being exposed to too much carbon dioxide?

Symptoms of overexposure to carbon dioxide include headache and difficulty breathing, and with greater exposure, nausea and vomiting.

## What are some tips for using dry ice to keep foods cool?

- Order dry ice in the form and size in which it will be used. It can be difficult and dangerous to cut.
- Store dry ice in a container that allows some leakage. If unvented, carbon dioxide gas can build up pressure inside a jar or container as dry ice melts.

### Use Dry Ice Safely

Carbon dioxide gas is heavier than air, and therefore, it can pool in basements or other low areas.

When transporting dry ice, always keep vehicle windows open to bring in fresh air.

The quantity of dry ice used in a regular freezer or refrigerator is unlikely to produce carbon dioxide gas in sufficient quantity to cause a health problem. Dry ice can readily be used to keep foods cool in those types of containers.

## How much dry ice will I need?

The quantity of dry ice you will need to maintain temperature in a freezer or refrigerator will vary. Some basic tips for using dry ice to cool foods are:

**In a refrigerator:**

- A home-style refrigerator may use about 10 pounds of dry ice per day.
- Dry ice may freeze items, so place foods that may become damaged by freezing as far from dry ice as possible.
- Place ice on the bottom of a household type unit. Place newspaper or other materials as insulation on glass shelves to prevent the shelves from cracking.
- Keep liquids tightly covered so they do not become carbonated as the refrigerator fills with carbon dioxide.

**In a freezer:**

- A chest freezer may use 40 to 50 pounds of dry ice per day, placed on top of the food.

**A home-style refrigerator/freezer combination unit:**

- A unit with the freezer on bottom may use 15 to 25 pounds per day, placed on top of food.
- A unit with the freezer on top may use 20 to 30 pounds per day, placed on top of and surrounding food.
- A unit with a side-by-side freezer may use 30 to 40 pounds per day, placed on top of and surrounding food.

## How do I dispose of dry ice?

- Because dry ice can cause carbon dioxide gas to accumulate and build up pressure, do not dispose of dry ice in a sewer, garbage disposal, garbage chute, etc.
- Allow leftover dry ice to melt and turn into gas in a well-ventilated area.

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