



SAFETY FIRST – DRY ICE

**CAUTION:
KEEP OUT
OF
REACH OF
CHILDREN**

Dry Ice Safety Rules:

- 1. Always handle dry ice with care.** Dry Ice is extremely cold. The temperature is around -109° F or -78.5° C. Contact with skin for more than a second will freeze cells and cause an injury like a burn. Dry ice is frozen carbon dioxide. It does not melt into a liquid, but changes into a gas (sublimation).
- 2. Hand protection should always be worn whenever handling dry ice.** Highly insulated gloves offer the best protection, but an oven mitt or thick folded towel *may* provide enough protection.
- 3. DO NOT CONSUME DRY ICE!**
4. Don't enter closed storage areas that have stored dry ice or are presently storing dry ice before airing the space out completely. The sublimated CO₂ gas will sink to low areas and replace oxygenated air.
5. **Never** store dry ice in a completely airtight container. The sublimation of dry ice to carbon dioxide gas will cause any airtight container to expand or possibly explode.
6. Do NOT store dry ice in a refrigerator or freezer. The extremely cold temperature will cause your thermostat to turn off. However, dry ice is useful for emergency cooling during a power outage. When using it for this purpose, use ½ lb. per cubic foot of interior space.
7. Dry ice should NOT be placed directly on glass or plastic shelves. Also, do not place dry ice on Formica™, plastic or tiled countertops as the extreme cold could crack the surface.
8. **Store dry ice** in a thermally insulated container. The thicker the insulation, the slower it will sublimate and disappear.

TIPS:

1. Pick up dry ice as close as possible to the time needed.
2. Dry ice sublimates at 5-10%, or 5-10 pounds every 24 hours. Carry it in a well-insulated container such as an ice chest.
3. To keep foods frozen, place dry ice on top of food in a cooler. To prevent freezer burn, separate the food from the dry ice with newspaper.
4. To keep foods cold instead of frozen, place dry ice in the bottom of the cooler, cover with regular ice and place food on top.
5. To dispose of dry ice, place in a well-ventilated container and take outside where pets or small children can not reach. It will sublimate away.

ASPHYXIATION HAZARD

IF dry ice is transported in a closed vehicle, be sure to have proper ventilation. If the concentration of CO₂ gas in the air rises above 6%, it can be toxic. Leave area containing dry ice immediately if you start to pant or breathe rapidly.

IF dry ice has been stored in a closed room, vehicle or walk-in, open the doors and allow adequate ventilation before entering.

FIRST AID

IF you do get a burn from dry ice, the affected tissue should be flooded/soaked with tepid water. Do not use hot water! See a doctor if the skin blisters or comes off.

09-17-20

Approximate Amounts of Dry Ice Necessary to Keep Food Frozen

Amount of Food	Desired Time to Keep Food Frozen			
	4 Hours	12 Hours	24 Hours	2 Days
1 lb.	1 lbs.	3 lbs.	6 lbs.	10 lbs.
5 lb.	2 lbs.	4 lbs.	7 lbs.	12 lbs.
10 lb.	3 lbs.	5 lbs.	10 lbs.	15 lbs.
20 lb.	5 lbs.	8 lbs.	15 lbs.	25 lbs.
50 lb.	10 lbs.	15 lbs.	30 lbs.	45 lbs.

Important: Use crumpled newspaper to fill up any extra space that is not occupied by the dry ice or food within the container. This will help the dry ice to last longer.