



450 Grantham Street, Tarentum

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# SAFETY FIRST

## DRY ICE

**Caution:**

**KEEP OUT OF REACH OF CHILDREN**

**Always handle dry ice with care.** Dry Ice is extremely cold at -109.3 degrees F or -78.5 degrees C. Contact with skin for more than a second will freeze cells and can cause injury similar to a burn. **Hand protection should always be worn whenever handling dry ice.** Gloves offer the best protection, but an oven mitt or thick folded towel **may** provide sufficient protection.

### 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 5%, 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, van or walk-in, open the doors and allow adequate ventilation before entering.

**First Aid:** If you do get a burn from dry ice, frozen tissues should be flooded/soaked with tepid water. **Do not use hot water.** See a doctor if the skin blisters or comes off. If the burn is only red, it will heal in time as any other burn would.

### DON'T

**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.

**Don't** 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.

**Don't** store dry ice in a refrigerator/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 1/2 lb. per cubic feet of interior space. Don't place dry ice directly on glass or plastic shelves. dry ice on a Formica™, plastic or tiled countertop as the extreme cold could crack the surface.

### DO

Store dry ice in a thermally insulated container. The thicker the insulation, the slower it will sublimate (turn into carbon dioxide gas) and disappear.

### Important Information

- Pick up dry ice as close as possible to the time needed.
- 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.
- To keep foods frozen, place dry ice on top of food in a cooler.
- To prevent freezer burn, separate the food from dry ice with newspaper
- To keep foods cold instead of frozen, place dry ice in bottom of cooler, cover with

regular

### 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	2 lbs dry ice	4 lbs dry ice	6 lbs dry ice	12 lbs dry ice
5 lb	3 lbs dry ice	5 lbs dry ice	8 lbs dry ice	15 lbs dry ice
10 lb	4 lbs dry ice	6 lbs dry ice	10 lbs dry ice	18 lbs dry ice
20 lb	5 lbs dry ice	8 lbs dry ice	15 lbs dry ice	30 lbs dry ice
50 lb	10 lbs dry ice	20 lbs dry ice	40 lbs dry ice	75 lbs dry ice

**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.