

# SAFE HANDLING GUIDELINES



## DRY ICE

NOT FOOD GRADE - DO NOT USE IN FOOD PROCESSING APPLICATIONS

### Description

Dry ice is carbon dioxide in solid form. It has an extremely low temperature of  $-109.3^{\circ}\text{F}$  ( $-78.5^{\circ}\text{C}$ ). This low temperature means dry ice can be useful for keeping a variety of things cold, but also should not be handled without proper safety protocols and protection. Unlike water ice which melts into a liquid, dry ice transforms directly into a gas (sublimates). During sublimation carbon dioxide gas can displace oxygen and has the potential to cause suffocation. It can also expand and create an explosion hazard if stored in an air tight container. Use the information provided below for safe transportation, storage, and handling protocols.

### Potential Hazards

Asphyxiation



Changes rapidly from solid to gas form and can displace oxygen. Store and use in a well ventilated area.

Cold Burns / Frostbite



Contact with bare skin can result in injury. Wear cold insulating gloves and eye protection. Cover any exposed skin.

Pressure Explosion



Dry ice expands as it sublimates. Do not store in air tight containers.

### Pickup & Transport

Pick up the dry ice close to the time you plan to use it. Bring your own cooler or other well-insulated storage container. Please ensure the container is not air tight. Make sure the vehicle used for transport is well ventilated, or transport outside of the main cabin if possible (e.g., truck bed).

### Ventilation

Dry ice turns into carbon dioxide gas as its temperature reaches  $-109^{\circ}\text{F}$  or higher. Carbon dioxide can accumulate in low and/or poorly ventilated areas. Large amounts of carbon dioxide can be hazardous to your health. Ensure you are handling dry ice in a well ventilated space. If you start to experience dizziness, shortness of breath, or headaches leave the area immediately and get some fresh air. In the event of a spill, or if carbon dioxide accumulation is suspected in your space make sure everyone is evacuated, then open windows, doors, vents, etc., to clear out the carbon dioxide gas.

### Proper Handling

Never handle dry ice with your bare hands. Wear cold insulating gloves and use metal tongs to move pieces of dry ice. Wear a face shield or eye protection and cover any exposed skin as an additional safety precaution. If dry ice comes into contact with skin it may result in frostbite or cold burns. In cases of frostbite do not rub the affected area. Thaw frosted skin with lukewarm water and seek medical attention. Avoid dry heat. Avoid contact with surfaces that may be damaged by extreme cold.

### Disposal

To dispose of unused dry ice simply leave it in a well-ventilated area and allow it to sublimate at room temperature. Do not place in an enclosed area without ventilation or an air tight container. Make sure the area is properly secured to avoid accidental exposure. Do not dispose of in sink, drain, or sewer as damage to pipes may occur and frozen pipes could create an explosion risk.