

# Safe Handling Guidelines for Dry Ice

## FACTS ABOUT DRY ICE

Dry ice is the frozen form of carbon dioxide. When heated, most frozen solids melt to a liquid form, but dry ice transforms directly into a gas (sublimation). Dry ice sublimates at temperatures at or above  $-109^{\circ}\text{F}$  ( $-78^{\circ}\text{C}$ ).

The main hazards of dry ice include **asphyxiation** and **burns**. Use of dry ice in confined spaces (small rooms or walk-in coolers) and/or poorly ventilated areas can result in depletion of oxygen, causing asphyxiation. Exposed skin should be protected from contact with dry ice. To ensure appropriate controls are in place, **review the Dry Ice Safety Data Sheet BEFORE accessing the contents from the thermal shipping container and consult with your Occupational Health Department.**

## GENERAL SAFETY GUIDANCE FOR DRY ICE 'CAUTION'



### DO NOT TOUCH—AVOID EYE CONTACT

Use waterproof insulated gloves when removing or adding dry ice to prevent cold burns and frostbite. Avoid contact with face and eyes. Wear safety glasses with side shields or safety goggles.



### DO NOT EAT

Dry ice is harmful if eaten or swallowed. If ingested, seek immediate medical care.



### DO NOT STORE IN CONFINED SPACES

Dry ice changes to a gas very rapidly at room temperature, displacing oxygen. Only use dry ice in open or well-ventilated areas.



### DO NOT PLACE IN AIRTIGHT CONTAINERS

Airtight containers may explode as dry ice rapidly expands to a gas when exposed to temperatures above  $-109^{\circ}\text{F}$  ( $-78^{\circ}\text{C}$ ).

## VENTILATION

At room temperature (including most cold storage temperatures), dry ice becomes carbon dioxide gas, which may cause difficulty breathing or suffocation. If dry ice has been in a closed area, trailer, or container, open doors and allow adequate ventilation before entering. **If you feel short of breath or develop a headache, these may be signs that you have inhaled too much carbon dioxide. Leave the area immediately.** Carbon dioxide is heavier than air and accumulates in low, poorly ventilated spaces.

Operational practices for accessing a closed area where dry ice is present should be reviewed and agreed upon with your Occupational Health and Safety officer.

## BURN TREATMENT

Dry ice may cause cold burns to the skin. Use waterproof insulated gloves when handling dry ice. Seek medical care as directed by the Dry Ice Safety Data Sheet.

## DISPOSAL

Once dry ice is no longer needed, open the container and leave it at room temperature in a well-ventilated area. It will readily sublime from a solid to a gas. **DO NOT** leave dry ice in an unsecured area. **DO NOT** place in drain or flush in toilet. **DO NOT** dispose in trash. **DO NOT** place in a closed area, such as an airtight container or walk-in cooler.



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