→ Datasheet

Safe Handling and Storage of Dry Ice (CO_2)

Solidified Carbon Dioxide
UN1845
SDS: P-4575

Safe Handling and Storage of Dry Ice

When handled properly, dry ice is safe and easy to use. Please make sure that all users read and understand the information before using dry ice.

About Dry Ice

Dry ice is solidified carbon dioxide (CO_2). Distinct from regular ice, which exists at temperatures of 32 °F (0 °C) and below, dry ice is extremely cold, -109 °F (-79 °C). And unlike water ice, dry ice does not melt. Instead, it sublimates (goes directly from a solid to a gas), releasing CO_2 vapour. CO_2 vapour is substantially heavier than air. In confined, poorly ventilated spaces, it can displace air, causing asphyxiation. It is even possible for CO_2 vapour to accumulate in low-lying areas out-of-doors under zero or very light wind conditions.

Safe Handling

- **Avoid contact with skin and eyes!** Dry ice is extremely cold, -109 °F (-79 °C), and can cause severe frostbite within seconds of direct contact. (Frostbite is a freezing injury resembling a burn.)
- **Never handle dry ice with your bare hands.** Always wear insulated gloves. Safety glasses, a long-sleeved shirt, long pants, and shoes are also recommended. Use tongs to handle blocks of dry ice.
- **Do not put dry ice in your mouth or otherwise ingest it.** If dry ice is accidentally ingested, it can cause severe internal injury. Never put dry ice in beverages to cool them.
- **Keep out of reach of children.** Dry ice should be handled only by adults.
- **Obtain dry ice in the form and size in which it will be used.** Never saw a block of dry ice; never use a hammer to break a block of dry ice into smaller pieces.
- **Transport dry ice in your vehicle trunk or truck bed.** Leave windows open for fresh air circulation. Never leave dry ice in a parked passenger vehicle. Sublimation of dry ice in a closed passenger vehicle can result in the accumulation of dangerous concentrations of asphyxiating carbon dioxide vapour. Dry ice can be safely transported without special ventilation in the closed cargo area of a truck if all occupants are restricted to the cab. When opening a closed cargo area containing dry ice, allow the closed space to ventilate for 5 minutes before entering.

Safe Handling (continued)

- **Never store dry ice in glass or other sealed (air-tight) containers or coolers.** Storage in a sealed container can result in rupture or explosion of the container from over-pressurization.
- **Do not use dry ice in confined areas.** Dry ice releases heavy carbon dioxide vapour that can cause rapid suffocation.
- **Do not place dry ice on a tile or laminated counter top.** Instead, use a solid surface like a wooden board or piece of plywood is best. Dry ice, which is sometimes used in tile removal, may destroy the bonding agent holding the tile or laminated material in place.
- **Do not place dry ice in direct contact with perishable foods or bottled/canned beverages.** Some foods may sustain severe freezer burns and bottled/canned beverages may split or explode.

Disposal of Unused Dry Ice

- **Do not attempt to dump unused dry ice.** Allow the dry ice to sublimate to the atmosphere in a well-ventilated area where no buildup of carbon dioxide vapour can occur.
- **Do not dispose of dry ice in sewers, sinks, or toilets.** The extreme cold will harm sink disposals, toilet parts, and pipes.
- **Do not dispose of dry ice in garbage receptacles or garbage chutes.**
- **Do not dispose of dry ice in areas accessible to the general public.**

For more information contact your closest branch at **1-800-225-8247** or visit our website at **lindecanada.ca**.

Linde Canada Inc.
1 City Centre Drive, Suite 1200, Mississauga, Ontario, L5B 1M2
Phone 1-800-225-8247, www.lindecanada.ca