

# All About Ice Limited

## GUIDELINES FOR THE SAFE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF DRY ICE PRODUCTS

### Product Description

Solid Carbon Dioxide - CO<sub>2</sub> (dry ice) is very cold: -78°C. It sublimates (turns from a solid) to an asphyxiant gas that is heavier than air. It is important to note that a little bit of dry ice will sublime to a large volume of gas.

Dry ice is manufactured in the form of pellets, slices or blocks and may be supplied loose or in insulated containers.

The risks associated with dry ice in a customer caller-collect situation come from:

- The product (pellets, slices, blocks)
- Types of packaging and insulation used
- The way it is secured whilst in transit
- The type of vehicle being used; and
- The length of time the journey takes

Areas having an impact on the size of the risk include product packaging and insulation. Your supplier will have listed the hazards associated with the product on the wrapper or container in which the dry ice is supplied.

The Material Safety Data Sheet given to you by your supplier will inform you of the action to be taken in the event of an incident or emergency involving dry ice and the health hazards of the product. You should read this carefully before transporting, handling or using dry ice.

### TRANSPORTATION



The most significant risks incurred when transporting dry ice are:

- The creation of an unsafe atmosphere due to sublimation of the product (change of state from a solid to a gas – the product will not "melt" into a liquid).
- Spillage from an insecure load would lead to a higher rate of sublimation as the surface area of the product type increases – pellets being worse than slices that, in turn, are worse than blocks.
- Impact damage / injury - As with any heavy load, dry ice loads **MUST BE SECURED**.

The following is intended as a guide to help you determine if the vehicle you are collecting the ice in is suitable:

AVOID transporting dry ice in the cab of a truck or the passenger compartment of a car. If this is not possible, the load should be well insulated and adequate ventilation must be maintained.

Preferably transport dry ice in vehicles where the driver's cab is isolated from the load compartment.

**ALWAYS** secure the load compartment doors in the open position before entering. For large "walk-in" load compartments, the doors should be capable of being opened from the inside.

**ALWAYS** ensure that there is adequate ventilation during transportation and before entering load compartment to unload product.

**ALWAYS** carry a carbon dioxide (solid) Material Safety Data Sheet in the cab or driver's compartment of any vehicle that is carrying dry ice.

**REMEMBER:** There are not hard and fast rules, however, drivers of vehicles carrying dry ice should be aware that the level of risk of an unsafe atmosphere occurring in the vehicle will depend on the following conditions:

- Quantity of dry ice being transported
- Type of packaging and insulation used
- The length of time the product is held in an enclosed space
- The temperature of the load compartment
- Vehicle ventilation – **ALWAYS** ensure that the heating / air supply is switched to draw in 'fresh air' from outside the vehicle.

**ALWAYS** unload product as soon as possible at the end of the journey and move to a suitable storage location.