



ALMA STREET,
PEASLEY CROSS,
ST HELENS, MERSEYSIDE.
WA9 3AR

Dry Ice



Norgas currently offer dry ice in block form only. The block is approximately the same size as a house brick, and weighs approximately 1 Kg. This is an ideal size for lectures, small scale pipe freezing, shrink fitting etc.

Price varies dependant on the number of blocks ordered per shipment.

The product is manufactured at our St. Helens plant, specifically to order, and may be either collected in person, or delivered within our delivery area via our own delivery vehicles.

Ideally, we require 24 hours notice, but we endeavor to assist with urgent requests.



ALMA STREET,
PEASLEY CROSS,
ST HELENS, MERSEYSIDE.
WA9 3AR

Typical areas of applications

Chilling and freezing of food using Catering trolleys
Transportation of frozen or chilled food
Freezing and chilling of food
Blast Cleaning
Emergency cooling in case of mechanical breakdown
Cold grinding
Shrink fitting of engineering parts
Freeze branding
Fast chilling and freezing in laboratories
Transportation of medical and pharmaceuticals products
Special effects in theatres and nightclubs
Localised freezing of pipes

Health and Safety

Dry Ice is Solid Carbon Dioxide with a temperature of -78.6°C and sublimates to Carbon Dioxide gas, which can cause severe burns and suffocation. Please contact us for a 'Safe Handling' Guide and Health and Safety details.

Dry Ice must NOT be put into drinks.

Before handling and using dry ice ensure you understand its properties, potential hazards and actions to take in an emergency.

Properties

- Dry ice is a solid carbon dioxide. Chemical formula CO_2
- Dry ice appears as a translucent white solid which at normal temperatures sublimates from the solid state directly into a gas without passing through a liquid phase.
- Non flammable, asphyxiant
- Colourless gas with a slightly pungent odor which is only detectable in high concentrations



ALMA STREET,
PEASLEY CROSS,
ST HELENS, MERSEYSIDE.
WA9 3AR

Hazards

- Asphyxiation - In high concentrations sublimed vapor may cause asphyxiation. 10kg of dry ice sublimates into about 5.4 m³ of carbon dioxide gas.
- Extreme Cold - Contact with product can cause cold burns or frostbite. The temperature of dry ice is -78°C.

Tips

- Do not handle dry ice with bare hands. It can cause severe cold burns and frostbite
- Before using dry ice in any area, establish the risks involved. Ensure you consider the potential for the creation of atmospheres with a high concentration of carbon dioxide near the ground
- Only experienced and properly instructed people should handle dry ice
- Do not remove or deface any product labels
- Know and understand the properties of dry ice
- Establish plans of emergency
- Always seek professional advice on suitable ventilation systems. Use carbon dioxide monitors to warn of problems
- Never play games with dry ice
- Always keep dry ice away from children
- Water on solid CO₂ increases sublimation with a corresponding higher risk of asphyxiation
- Always wear eye protection and heavy insulated gloves suitable for the extreme cold temperature of dry ice. Never handle dry ice with your bare hands - it can cause frostbite.
- Dispose of dry ice in a well ventilated area away from the public. Do not discharge into any place where its accumulation could be dangerous
- Take care when carrying packages of dry ice

Special care should be taken when storing and transporting dry ice.



ALMA STREET,
PEASLEY CROSS,
ST HELENS, MERSEYSIDE.
WA9 3AR

Storage

Many factors can affect the rate at which dry ice sublimates from the solid state into gaseous carbon dioxide. These include ambient temperature and humidity, the quality of the storage container, the number of times the container is opened and closed. The better the insulation, the slower the sublimation rate and the longer the quality of the product will be maintained.

The list below offers suggestions for the proper storage of dry ice:

- Always store dry ice in a properly designed container
- Keep the container lid closed when not in use
- Always secure the container lid open before reaching in to unload the product. Avoid leaning into the container for longer than necessary
- Do not store dry ice in any gas tight container. Within large containers, gas atmospheres will have built up
- Do not expose dry ice to high ambient temperatures unnecessarily as this increases the sublimation rate and thereby the risk of carbon dioxide atmospheres
- Do not store dry ice in cellars or unventilated rooms
- Ensure adequate low level ventilation wherever dry ice is stored

Transport

The list below offers suggestions for the safe transportation of dry ice:

- 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
- It is preferable to 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 the load compartment to unload the product
- Always carry Carbon Dioxide (solid) Safety Data Sheet in the cab or driver's compartment of any vehicle carrying dry ice
- Always unload the product as soon as possible at the end of the journey and move it to a suitable storage location