

DIOXICE

Safe Handling of Dioxide

Caution: Keep Dioxide away from children & animals and never leave the material unattended.

HANDLING

Dioxide is extremely cold (-78.6°C). Always handle it with care and wear protective insulated gloves whenever touching it. If touched briefly it is harmless, but prolonged contact with the skin will freeze cells and cause a cold burn.

STORAGE

Store Dioxide in an insulated container. The better the insulation, the slower it will sublime. Sublimation is a physical change from the solid to gas phase without an intermediate liquid phase, so if Dioxide is placed in a completely airtight container the sublimation into carbon dioxide gas will cause the container to expand and possibly violently explode. Do not store Dioxide in a refrigerator or freezer, as the extremely cold temperature generated by the Dioxide will turn off the freezer thermostat. This makes it the perfect material to use if your refrigerator or freezer breaks down, as it will keep everything in good condition for many hours. Please ask for details.

Keep proper air ventilation wherever Dioxide is stored. Do not store Dioxide in unventilated rooms, cellars, cars, driving cabs or boat holds. The sublimed gas will sink to low areas and replace oxygenated air, which could cause suffocation if breathed exclusively.

VENTILATION

Normal air is 78% Nitrogen, 21% Oxygen and only 0.035% Carbon Dioxide. If the concentration of carbon dioxide in the air rises above 0.5%, carbon dioxide can become dangerous. Smaller concentrations can cause quicker breathing but is otherwise not harmful. If Dioxide has been left in a closed area for more than 10 minutes, open all doors and windows and allow adequate ventilation before entering. Leave the area containing Dioxide if you start to pant and breath quickly or your fingernails or lips start to turn blue. This is the sign that you have breathed in too much CO₂ and not enough oxygen. CO₂ is heavier than air and will accumulate at low levels. Never enter closed Dioxide storage areas before ventilating.

PICK-UP TIME AND TRANSPORTING

Plan to pick up the Dioxide as close to the time it is needed as possible. It sublimates at 15 – 20 % by weight every 24 hours, depending on the amount, the storage conditions and ambient conditions. Carry it in a well-insulated container such as an ice chest. A camping container will provide only limited insulation. If it is transported inside a car or van for more than 15 minutes make sure there is a continuous supply of fresh air.

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BURN TREATMENT

Treat Dioxide burns the same as regular heat burns. See a doctor if the skin blisters. Otherwise, if only red it will heal in time as any other burn. Apply antibiotic ointment to prevent infection and bandage only if the burned skin area needs to be protected.

DISPOSAL

Unwrap carefully and leave it at room temperature in a well-ventilated secure area. It will sublime from the solid state to a gas. **Never mix Dioxide with water or any other liquid** as this will rapidly generate CO₂ gas and possibly explode the remaining ice into your face.



Do not touch Dioxide.

Dioxide is a skin and eye irritant. Avoid contact with skin, mouth, eyes, and clothing. May cause severe frostbite or burns.



Do not eat Dioxide.

Dioxide is harmful if eaten or swallowed. If eaten, seek medical help immediately.



Do not store in a confined space.

Dioxide changes to CO₂ gas as it sublimates (melts). Do not use or store in small rooms or unventilated areas.



Do not place Dioxide in airtight containers.

Airtight containers may explode as Dioxide converts to CO₂ gas.



Do not store Dioxide where people sleep.

Only use Dioxide in open or well ventilated areas. Otherwise, a lack of oxygen (suffocation) can occur, causing serious injury or death.