

Guidelines for the Use of Dry Ice

Solid carbon dioxide or **dry ice** often found in research labs, converts directly to carbon dioxide gas at -78°C (-109°F). Dry ice can be hazardous to workers if not handled properly. The main hazards of dry ice are burns and asphyxiation. Use of dry ice in poorly ventilated areas can result in depletion of the oxygen level resulting in asphyxiation. In addition, dry ice can cause damage to equipment and materials if the surface is not designed for the extreme cold.

There are some important points to consider and follow when working with dry ice:

- When storing dry ice always make sure it is kept in a well ventilated area inside an insulated container.
- Never place dry ice on tile or laminated counter tops. The adhesive will be destroyed costing precious research dollars to repair.
- Never handle dry ice with bare hands. By using cryogenic gloves designed for the purpose, which are loose fitting, not only protects your hands but will allow you to remove the gloves in case some of the dry ice gets inside the gloves.
- Always wear safety goggles (not glasses). Goggles protect the eyes better by completely encapsulating the eyes and protecting them from pieces of dry ice.
- The correct way to dispose of dry ice is to let it sublime in a well-ventilated area.
- NEVER dispose of dry ice in sinks or toilets. The sudden change in temperature cause severe damage to pipes and sinks which often times have to be replaced.
- In case of an exposure, immediately remove any clothing that is not frozen to the skin.
- Rubbing skin after it has been in contact with dry ice can cause tissue damage.
- Place any affected parts of the body in a warm water bath. The water should not exceed 40 degrees C or 104 F.
- After you have taken care of your immediate medical needs, obtain medical assistance and complete an on-the-job injury form as soon as possible.