

snowlike solid called dry ice that sublimates (passes directly into vapour without melting) at $-78.5\text{ }^{\circ}\text{C}$ ($-109.3\text{ }^{\circ}\text{F}$) at the pressure of the normal atmosphere.

* At ordinary temperatures, carbon dioxide is quite unreactive; above $1,700\text{ }^{\circ}\text{C}$ ($3,100\text{ }^{\circ}\text{F}$) it partially decomposes into carbon monoxide and oxygen. Hydrogen or carbon also convert it to carbon monoxide at high temperatures. Ammonia reacts with carbon dioxide under pressure to form ammonium carbamate, then urea, an important component of fertilizers and plastics. Carbon dioxide is slightly soluble in water (1.79 volumes per volume at $0\text{ }^{\circ}\text{C}$ and atmospheric pressure, larger amounts at higher pressures), forming a weakly acidic solution. This solution contains the dibasic acid called carbonic acid (H_2CO_3).

* Carbon dioxide is used as a refrigerant, in fire extinguishers, for inflating life rafts and life jackets, blasting coal, foaming rubber and plastics, promoting the growth of plants in greenhouses, immobilizing animals before slaughter, and in carbonated beverages.

* Ignited magnesium continues to burn in carbon dioxide, but the gas does not support the combustion of most materials. Prolonged exposure of humans to concentrations of 5 percent carbon dioxide may cause unconsciousness and death.

preview from Notesale.co.uk
Page 2 of 2