Liquid CO2

Carbon dioxide cannot exist as a liquid under normal atmospheric conditions. At a pressure above 5.11 bar(a) and at a temperature between -56.6°C and 31.1°C, it turns into liquid state and its density increases with temperature to 1 180 kg/m3 . The liquid or gas equivalent, at 1,013 bar and 15 °C per Kg. of solid is 845 vol. /vol.

Prime Gases with our indigenous house bound technology produce Liquid CO2 which can be stored at both high and low pressure. We are committed to produce odorless Liquid CO2 with a food quality grade of 99.99%. CO2 made liquid can be easily transported to any place without disturbing its properties and much of wastage. Thorough and continuous checking is done in order to ensure that the desired quality is maintained throughout the time. We make sure that our Liquid CO2 can be used across all industries and for various purposes. We are having our own tankers in order to distribute the liquid CO2 from our facility to the customer premises. We have a total installed capacity of 215 Tons/ day in South India in order to produce liquid CO2 making us one of the largest manufacturers in the south Indian market. We also have 5 satellite filling stations in order to cater the local markets and ensure prompt delivery to all our customers . We have 11 our own tankers to transport CO2 to the customer premise. All are tankers are checked periodically and equipped with safety instruments to ensure safety during the transportation.

Uses: Metal Industry

Carbon dioxide is extensively used in the hardening of molding mixture of sand and liquid silicate binder, leading to reduction in production throughput and realization of cost savings through decreased fuel consumption.

Manufacturing

Carbon dioxide is used in the process of Metal Inert Gas (MIG) or Metal Active Gas (MAG) welding, to shield the weld surface from getting affected by atmospheric gases such as Oxygen and Nitrogen. The inertness of Carbon dioxide helps in preventing porosity and eliminating substantial defects in the weld.

Chemical and Petroleum Industry

Carbon Dioxide gas plays a significant role in the chemical industry for its use during the production of chemicals such as Urea, Ethanol etc. Carbon dioxide is known to enhance production of oil from older wells i.e. oil recovery. Carbon dioxide is recognized as an effective re-pressurizing agent and viscosity reduction catalyst in facilitating smooth flow of oil from reservoir to the removal well.

Water treatment

Carbon dioxide is put to use in the purification of drinking water by acting as a neutralizing agent to treat alkaline water. It is also used in the treatment of water in the swimming pools. Carbon dioxide proves to be an effective alternative to mineral acids due to its ease of use, operational safety and in ensuring an ecologically safe environment.

Fire Protection and Fire fighting

Carbon Dioxide, owing to its heavier density compared to air, is typically used in fire-extinguishers while blanketing a fire. Extinguishers typically contain pressurized liquid Carbon Dioxide which can be used to put out low flammable liquid and electric fires

Beverage Industry

Carbon dioxide is the key ingredient in the carbonation of fizzing beverages such as soft drinks, beer and soda water etc.

Pest Control

Carbon Dioxide, due to its property of not leaving any harmful residues, is extensively used in controlling atmosphere systems in silos and fumigation of aircrafts.