

Inside of CNG Type IV cylinder is made of plastic, so it doesn't do bomb effect in case of an explosion. Plastic inside shell just bursts and the gas just flies away in a few seconds, because CNG is lighter than air.

Other CNG cylinders (Type 1-2-3) themselves or insides are metal, so they do bomb effect in case of an explosion, spreads away like shrapnel. This causes life and goods loss.

There are two important structure as safety factors at natural gas systems.

- Special design of natural gas systems
- Physical and chemical features of natural gas

Using industry and home natural gas is safer than diesel and coal. Because unlike liquid and solid fuels, natural gas is mixed into atmosphere in case of leaking. However liquid fuels have a huge risk of spoiling on ceiling and causing to fire.

Natural gas cylinders are more resistant to physical and chemical effects than other fuel storages of systems because of composite materials.

Ratio of evaporation is close to zero, so there is no risk of leakage. Even in case of puncturing of cylinder, natural gas which is lighter gas than air, mixes into air directly without causing any hazzard.

Natural gas whose ignition heat is 6500C, is safer than benzine whose ignition heat is 3500C. Besides, there is no risk of explosion of natural gas unless ratio of mixage with air is between %5 and %15. Natural gas is the most reliable gas in terms of safety according to other liquid fuels in case of an accident because of its high igiton heat and low range of burning.