

# Fire Emergency Measures for High Purity Nitrogen

Nitrogen purification methods mainly include adsorption, variable pressure adsorption and membrane separation. In the production, black cylinder is usually used to hold nitrogen.

Uses of nitrogen: It is used as protective gas and carrier gas in the manufacture of integrated circuits, semiconductors and electro-vacuum devices, carrier gas in chemical vapour phase precipitation, carrier gas in liquid diffusion sources, and protective gas in high temperature diffusion furnaces for devices. High-purity nitrogen is used as replacement, drying, storage and transport gas in epitaxy, lithography, cleaning and evaporation processes. Nitrogen purity of 99.99% or more is required in the manufacture of picture tubes. In aerospace technology, the liquid hydrogen refuelling system must be replaced by high-purity nitrogen first, and then replaced by high-purity helium.

Nitrogen fire emergency measures: quickly evacuate the leaking contaminated area personnel to the upwind place, and isolation, strict restrictions on access. It is recommended that emergency personnel wear self-contained positive pressure respirators. Do not come into direct contact with the leak. Cut off the source of leakage as far as possible. Prevent the gas from accumulating in low recesses and catching fire and exploding when

it meets an ignition source. Use an exhaust fan to send the leaking gas to an open area. Dispose of leaking containers properly and repair and inspect before reuse. Use mist water to keep the container cool in the fire. Mist water spray can be used to accelerate the evaporation of liquid nitrogen, but do not use a water gun to shoot to liquid nitrogen. If inhalation of high purity nitrogen, feel respiratory difficulties, give oxygen. If breathing stops, give artificial respiration immediately. Seek medical attention.

