NITROGEN   N$_2$

MARKING

CAS-Number   7727-37-9

Characterization   NITROGEN, compressed, 2.2

                        Class 2, 1A

Cylinder Marking   Grey / Black Shoulder

ESSENTIAL PROPERTIES

Colourless, odorless, asphyxiating gas, compressed, slightly heavier than air

Symbol of Risks:

Non-flammable, non-toxic   **Gas, compressed**

Major Hazards: High Pressure, Suffocation

UN Number: UN1066 (gas)

                    UN1977 (liquid refrigerated)

Physical Properties

Molecular weight: 28, 0134 kg/kmol

Density ratio to air: 0, 9671

MATERIALS

CYLINDER SIZE	CYLINDER MATERIAL	PRESSURE	VALVE	PURITY
40 liter 50 liter	Steel	150 bar 200 bar	BS3 5/8"- Right hand Female connection	99.7%

CYLINDER RACK

8 CYLINDER RACK

12 CYLINDER RACK

16 CYLINDER RACK

NITROGEN REGULATOR

APPLICATIONS

Food and Beverage: Nitrogen is very commonly used in contact with foodstuffs to avoid oxidation or micro-organism. Modified Atmosphere Packaging (MAP) preserves and protects foods.

Electronics: Nitrogen is used as carrier gas for overall protection against impurities and oxidation in semiconductor and soldering processes. In its cold and liquid form, N2 is used as a cooling medium in the environmental testing of electronic devices.

Automotive: Gas Assisted Injection Moulding requires pressures between 10 bar and 200 bar and a nitrogen content of between 98.0 % and 99.9 %. Tires' filling with nitrogen

increase their lifetime and therefore decreases the recycling or treatment of this waste.

Oil and Gas: Quality protection of products and facilities (blanketing)

Chemicals: Nitrogen can be used for blanketing, Regeneration of purification beds, preparation of catalysts and transportation of polymer powders and temperature control in reactors.

Pharmaceuticals: Nitrogen is used for inerting, cryo-grinding, drying, liquid phase transfer of products or synthesis intermediates; cryo-condensation of waste gases and low temperature storage.