## **Pure Gases**

## Nitrogen (N<sub>2</sub>)

## **Overview:**

Makes up 78.03% of air. It is colorless, odorless and tasteless. Nitrogen is often used as an "inert" gas because of its non-reactive nature with many materials. In the chemical and petroleum industries, gaseous nitrogen is used for storage tank purging and vessel inerting applications. It is also used in the electronics and metals industries because of its inert properties. Liquid nitrogen is widely used in refrigerant applications such as food freezing.

| Purity Specification    | Min Purity | Impurities |
|-------------------------|------------|------------|
| Industrial Grade        | 99.997%    | <30ppm     |
| High Purity Grade       | 99.999%    | <10ppm     |
| Ultra High Purity Grade | 99.9998%   | <2ppm      |

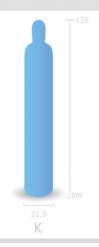
| NFPA Rating |   |   |  |  |  |
|-------------|---|---|--|--|--|
| 0           | 0 | 0 |  |  |  |

|                          | Products Specifications |                    |                    |                                      |                   | Cylinder Information |            |                   |                          |
|--------------------------|-------------------------|--------------------|--------------------|--------------------------------------|-------------------|----------------------|------------|-------------------|--------------------------|
| Product Details          | Cylinder<br>Size        | Cylinder<br>Volume | Valve/<br>Pressure | Standard<br>Valve<br>Outlet<br>(CGA) | Product<br>Number | Purity               | CAS Number | Cylinder<br>Color | Identification<br>Number |
| Industrial Grade         | K                       | 40 Ltr.            | 2,000 PSI          | 580                                  | DG002G            | 99.997%              | 7727-37-9  | Blue              | UN 1066                  |
| <b>High Purity Grade</b> | K                       | 40 Ltr.            | 2,000 PSI          | 580                                  | DG002G            | 99.999%              | 7727-37-9  | Blue              | UN 1066                  |
| Ultra High Purity Grade  | K                       | 40 Ltr.            | 2,000 PSI          | 580                                  | DG002G            | 99.9998%             | 7727-37-9  | Blue              | UN 1066                  |

<sup>\*</sup> Certificate of Conformance will be provided upon request.

| Technical | Data & T | ransnortir | ng Infor | mation |
|-----------|----------|------------|----------|--------|

| Appearance                    | Colorless gas.                   |
|-------------------------------|----------------------------------|
| Odor                          | Odorless.                        |
| <b>Physical State</b>         | Gas at temperature and pressure. |
| Melting Point at 1 atm        | -210°C (-346°F).                 |
| <b>Boiling Point at 1 atm</b> | -195.80°C (-320.44°F).           |
| Flammability                  | Nonflammable.                    |
| <b>DOT Name</b>               | Nitrogen, Compressed.            |
| <b>DOT Hazard Class</b>       | 2.2                              |
| DOT Label                     | Nonflammable Gas.                |
| Molecular Formula             | $N_2$                            |









**Cylinder Color** 

