



Gas Properties - Nitrogen

| Gas Name | Chemical Formula | Chemical Family |
|------------|------------------|-----------------|
| Nitrogen | N ₂ | Inert Gas |
| Synonym(s) | Nitrogen NF | |

| Molecular Weight | Critical Pressure (psia) | Critical Temperature (R) | Ratio of Specific Heats |
|--|--------------------------|--|-------------------------|
| 28.010 | 493 | 227 | 1.404 |
| Physical Characteristics | | Solubility | |
| Colorless, Odorless | | Slightly soluble in water and alcohol. | |
| Applications or Uses | | | |
| Fertilizer Production, Purge Gas, Injection | | | |
| Hazards | | | |
| Asphyxiant. Titanium will burn in the presence of pure nitrogen. | | | |
| Material Requirements | | | |
| Non-corrosive. Standard materials of construction. Piston rings, riders and packing rings need to be reviewed. | | | |
| Lubrication | | | |
| Standard guidelines for air apply. | | | |
| Comments | | | |
| Closely monitor discharge temperature. Bone dry nitrogen can cause problems with packing, rings, and wear bands. Ensure that materials are selected for the specific moisture content. | | | |