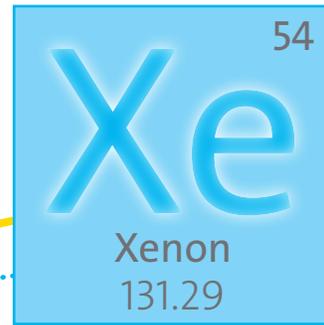
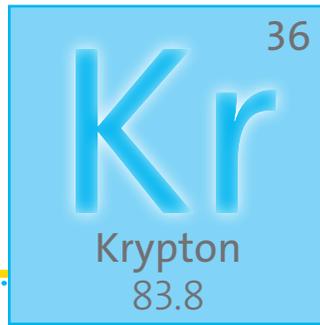
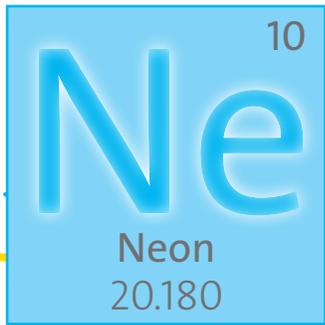


# Rare Gases



## Neon/Krypton/Xenon



As a leading global supplier of electronics and non-electronics specialty gases, Air Products has a long history of providing rare gases to a diverse customer base. We have also successfully demonstrated recovery technologies for these gases.

Air Products' rare gases customers can count on our global supply network, world-class service, expert technical assistance, commitment to quality and industry-recognized safety record.

### Neon/krypton/xenon major applications

#### Aerospace

Since the 1960s, Air Products continues to be a leading supplier of gases and solutions for aerospace industry. We offer xenon for the following aerospace applications: satellite programs, space travel, propulsion agent for spacecraft, satellite thruster and interplanetary probe.

#### Electronics

Air Products is a global industrial gases leader in electronics. Our rare gases, can be used in many electronics applications such as: excimer lasers, buffer gas used in lasers for semiconductor manufacturing, deep trench etching of DRAM integrated circuits, focused etch process, and plasma panel display. Our knowledgeable representatives can discuss these and other electronics applications with you.

#### Glass

Krypton is used as a filler in the production of double and triple-pane insulated windows. Major advantages of using krypton are reducing heat loss, increasing heat transfer resistance in the unit, and reducing levels of solar radiation. You can also increase the R-value or decrease the U-factor for window and door insulation with krypton, xenon and rare gas mixtures. Since Air Products has serviced many of the large glass manufacturers for decades, you can count on our expertise for your glass requirements.

### Distribution

Since xenon, krypton and neon are rare elements, efficient production, distribution and warehousing are critical to ensuring global supply. Air Products leverages a global network of sources, supply chain and inventory management to support and service its customers.



## Neon/krypton/xenon major applications

### Lasers

Neon-based excimer lasers are utilized for etching silicon wafers, LASIK eye surgery, micro-machining organic materials, UV lithography in integrated circuit fabrication, micro drilling, He/Ne mixes for optical readers, and wafer dicing. Krypton gas lasers are also used during scientific research, to create white-light lasers and light shows. These and other laser applications can be discussed with our experienced representatives.

### Lighting

Krypton is used for bright white light and long lasting incandescent bulbs, as well as photographic lighting applications. Neon is used for lighting in signs. Stadiums, automotive HID, head lights, IMAX theaters, photography and other concentrated, bright-light applications rely on xenon to for their lighting needs. Air Products has been a supplier to numerous large lighting companies for many years.

### Medical

Xenon is used to enhance imagining in X-rays and CAT scans, is effective as a neuroprotectant and is used in anesthesia for many types of surgery. Air Products is a fully integrated supplier in the medical industry.

For more information,  
please contact us at:

#### North America

Air Products and Chemicals, Inc.  
7201 Hamilton Boulevard  
Allentown, PA 18195-1501  
T 800-654-4567  
T 610-706-4730  
F 800-272-4449  
F 610-706-6890  
gigmrktg@airproducts.com

#### Europe/Middle East/Africa

Air Products, N.V./S.A.  
Waversesteeweg, 1789,  
1160 Brussel, Belgium  
T +32-2-255-28-11  
beinfo@airproducts.com

#### Asia

Air Products Asia Inc.  
1001, 10/F, Sunning Plaza  
10 Hysan Avenue, Causeway Bay  
Hong Kong  
T +852-2527-1922  
F +852-2527-1827  
infosale@airproducts.com

## Our people make the difference

Our highly trained and experienced specialists make sure you get the industrial gas supply you need safely, efficiently, and on time. From our highly skilled drivers, to our scheduling specialists, to our plant personnel — each is dedicated to flawless execution, 24 hours a day, 365 days a year. Our people are our most valuable asset because they deliver the difference that characterizes our gas products and services. And our exceptional level of service has earned us recognition — year after year — from customers of all sizes.



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