



MEDIA KIT

Air Liquide in the U.S.

News Media Hotline – 713-624-8594



*World leader in gases, technologies
and services for Industry and Health.*

AIR LIQUIDE IN THE US



Nearly 20,000
US employees



Americas
headquarters:
Houston, Texas



1,300+ company
locations, including
over 140+ industrial
gas plants



Approximately
2,000 miles
of pipeline



The Americas
account for 40%
of Air Liquide
sales worldwide

AIR LIQUIDE GLOBALLY



World leader in
gases, technologies
and services for
Industry and Health.



Present in
80 countries



Nearly 65,000
employees



Serves nearly
3 million customers
and patients



Revenue in 2016:
€ 18.135 billion

CAPABILITIES

Air Liquide is the world leader in gases, technologies and services for Industry and Health. The company relies on innovation, the competitiveness in its operations and the diversity of its people to deliver high-quality, sustainable solutions.

- Industrial and medical gas production – oxygen, nitrogen, hydrogen and rare gases
- On-site industrial gas production
- Specialty gases and advanced precursor materials
- Robust distribution network
- Equipment and delivery systems
- Gas and chemical management
- Analytical and laboratory services
- Cogeneration – steam and electricity
- Research and development – Delaware Research and Technology Center
- Engineering and construction management



A FEW APPLICATIONS OF OUR PRODUCTS

Renewable Energy:

- Hydrogen fuel cell vehicles
- Waste-to-biogas energy

Automotive & Manufacturing:

- Manufacturing processes for metals, plastics and glass require nitrogen, oxygen, hydrogen and other gases
- Gases are used in heat treatment, welding and cutting applications
- Pneumatics, lighting, windscreens and windows

Space & Aeronautics:

- Oxygen and hydrogen are used as propellants for rocket launches

Glass-making:

- Uses oxygen, nitrogen, hydrogen and argon
- Argon is used in the double glazing process

Food & Pharmaceuticals:

- Nitrogen and oxygen are used in preservation and packaging applications
- Nitrogen and carbon dioxide are used in chilling, freezing and mixing applications
- Oxygen, ozone and carbon dioxide are used in water treatment processes

Refining and Natural Gas:

- Nitrogen is used for blanketing, drying, purging, inerting, etc.
- Hydrogen is used in refineries to remove sulfur from fuels and to “crack” heavy hydrocarbons
- Oxygen is required to transform natural gas or coal in fuels or methanol

Chemical Industry:

- Consumes huge quantities of air gases, hydrogen and carbon monoxide
- Hydrogen is used in the chemical synthesis process and to produce plastics, polyester and nylon
- Carbon Monoxide is used to make polyurethanes (foam) and polycarbonates (CD, DVD)

Metals:

- Oxygen is used in the steel industry to improve productivity and energy performance and to reduce emissions
- Nitrogen enables the transport of pulverized coal for feeding blast furnaces.
- Argon is used to manufacture stainless steel

Healthcare

- Medical gases (oxygen, nitrous oxide) are medicines that relieve pain, anaesthetize, assist breathing and preserve cells

Technology & Research

- Gases are used to manufacture optical fibers, photovoltaic cells and luminescent diodes.
- The flat screen, semiconductor and photovoltaic industries rely on ultra-pure gases and fluids.
- 3D printing for both metals and plastics requires premium gases

Visit **Air Liquide's Gas Encyclopedia** to learn about applications for 64 gas molecules, as well as their physical and chemical properties, safety information and more.



Web: <http://encyclopedia.airliquide.com>

Download the mobile app from:



U.S. BUSINESSES

The diversity of Air Liquide's teams, businesses, markets and geographic presence provides a solid and sustainable base for growth in the U.S. Air Liquide touches many industries, enabling customers to make products that are essential to everyday life.



Large Industries

Air Liquide Large Industries U.S. supplies large quantities of industrial gases to its customers in the metals, chemicals, refining and energy industries. Due to their substantial gas consumption and their need for highly reliable continuous supply, delivery is typically supplied through a dedicated plant or via the Air Liquide pipeline network. It also offers technologies and solutions that enhance customer performance through improved energy efficiency and reduced environmental footprint.



Industrial Merchant & Specialty Gases

Airgas, an Air Liquide company, offers its customers - from multinational corporations to independent craftsmen - tailor-made solutions for their production process, from industrial and specialty gases to application equipment and related services. Depending on the quantity required, gases can be supplied to the customer's site in liquid form using dedicated cryogenic trailers, by means of onsite equipment or in gaseous form in high pressure cylinders.



Electronics

Leveraging its expertise, infrastructure and strategic proximity to its customers, Air Liquide Electronics U.S. serves major manufacturers of semiconductors, flat panel displays and solar cells. Its innovative materials respond to increasingly challenging customer demands for improved mobility, connectivity, computing power and energy consumption. Offerings include ultra-pure carrier gases, a wide range of specialty gases, customized advanced precursor molecules and related equipment for safe distribution, purification and online purity control.



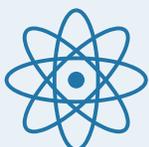
Engineering & Construction

Air Liquide Global E&C Solutions is a technology partner of choice for the design, engineering and construction of leading-edge production units and related infrastructure worldwide. Houston, Texas is home to one of Air Liquide's five engineering centers worldwide.



Healthcare

In the continuum of care from hospital to home, Airgas provides the quality products and services caregivers and patients need, backed by optimal support. The company supplies hospitals and health-care institutions with medical and therapeutic gases, specialty chemicals and related devices, and distribution equipment and services that contribute to improving quality of life for patients suffering from a wide variety of conditions and chronic illnesses that include COPD (chronic obstructive pulmonary disease), sleep apnea and diabetes.



Advanced Technologies

Air Liquide Advanced Technologies U.S. is a network with a strong expertise in cutting-edge technologies and inspired by disruptive mindsets that develop, shape and incubate significant new markets, sustainable for Air Liquide and for society. Air Liquide Advanced Technologies offers highly specialized technologies for many markets: space, aeronautics, marine, science and industry.

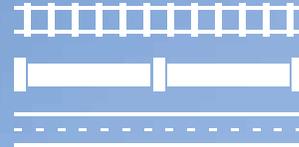
INDUSTRIAL GAS PRODUCTION AND DISTRIBUTION

Air Liquide's robust production and distribution networks are engineered to serve the needs of customers of all shapes and sizes.



Industrial Gas Production (oxygen, nitrogen, hydrogen and rare and specialty gases and chemicals)

- 140+ production facilities
 - Air Separation Unit (ASU) – oxygen, nitrogen and hydrogen
 - Steam Methane Reformer (SMR) – hydrogen and syngas
 - CO2 capture and liquefaction
- On-site production
 - Air Liquide builds and operates gas production units at more than 300 customer sites



Robust Distribution Network

- Bulk and cylinder distribution – 60+ depots, 6,000+ trucks and rail cars, 5,000+ professional drivers
- Extensive pipeline systems in Texas and Louisiana – 2000+ miles of pipeline supply mainly oxygen, nitrogen and hydrogen

INNOVATION

Oxygen, nitrogen, hydrogen and specialty gases have been at the core of Air Liquide's business since its founding in 1902. Air Liquide innovates constantly to develop new uses for its core products and to create new markets and opportunities in anticipation of future technological challenges.



Delaware Research & Technology Center in Newark, Del.

AIR LIQUIDE IN THE US

- Established the Delaware Research & Technology Center in Newark in 2007
- More than 100 researchers, representing more than 20 nationalities, are based at the DRTC.
- Major fields of research: bioresources, electronics, membranes, hydrogen energy, oxycombustion, process control and logistics, modeling.



Delaware Research & Technology Center in Newark, Del.

GLOBAL R&D ORGANIZATION

- Nine main R&D centers (USA, Europe and Japan)
- More than 1,000 researchers of 35 nationalities
- Innovation budget: €282 m in 2015
- More than 40 percent of the Group's revenue is generated by solutions that protect life and the environment
- Approximately 6,200 employees contribute to the Group's innovation
- 300 patents filed each year

A RESPONSIBLE COMPANY



LOST-TIME ACCIDENT
FREQUENCY RATE
**REDUCED BY
MORE THAN 2**
OVER 20 YEARS*

SAFETY FIRST

Safety is a core value at Air Liquide. With an accident frequency^(a) rate that has been reduced by nearly 2 percent over 20 years, Air Liquide continues to emphasize employee training on risks fundamental to its business.

*Number of lost-time accidents with at least one lost-day per million hours worked by Group employees (1.6 in 2015)



SUSTAINABLE DEVELOPMENT

Air Liquide puts long-term performance and sustainability at the heart of its ambition. Talking about sustainability, we see two main imperatives: safety on one hand and compliance with human rights and business ethics on the other hand.

For the period of 2016-2020, the Group will strengthen its efforts to improve air quality for better environment and health, and will continue to be engaged in an active dialogue with all its stakeholders to contribute to sustainability.

COMMUNITY PARTNERSHIPS

AIR LIQUIDE IN THE U.S.

At Air Liquide, we view community investment not as a choice, but as a responsibility we take seriously. Air Liquide and its employees are committed to supporting the communities in which we live and work both financially and through volunteering time and expertise. In the U.S., Air Liquide's community engagement program supports philanthropic initiatives dedicated to improving STEM education, youth education and wellbeing and other local community efforts. Air Liquide is also committed to supporting causes that are important to its employees through its matching gifts program, doubling financial gifts made to philanthropic organizations by its U.S. employees.

Air Liquide doesn't stop at financial contributions. Volunteering is part of life for many Air Liquide employees, as they constantly seek out opportunities to get out into the community to make a positive impact.

AIR LIQUIDE FOUNDATION

Founded in 2008, the Air Liquide Foundation supports philanthropic initiatives in the 80 countries in which Air Liquide operates. The Foundation is dedicated to projects that preserve life and the environment, as well micro-initiatives that support local development and economic progress. For more information visit www.fondationairliquide.com.





FOR MEDIA INQUIRIES, PLEASE CONTACT:

Emma V. Chambers

Corporate Communications Manager

emma.chambers@airliquide.com

713.624.8051

News Media Hotline – 713.624.8594

