



Industrial Gases

Essential Suppliers to the U.S. Economy

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The Industrial Gases Industry: Essential to U.S. Manufacturing, Health Care, Domestic Energy Production and Energy Efficiency

What is the industrial gases industry?

The American industrial gases industry provides essential products to manufacturers, innovators and services that help drive the U.S. economy. Industrial gases producers use advanced technologies to supply gases like oxygen, nitrogen and hydrogen. Many of these gases are used in manufacturing, health care, transportation and other essential industries. While the industrial gases industry uses natural gas, the industrial gases industry is not a producer or distributor of natural gas.

- The industrial gases industry produced approximately \$12.2 billion worth of products in 2014 and employed approximately 60,000 American workers.*
- The industrial gases industry supplies products to industries that account for 25% of America's Gross Domestic Product.*

Who comprises the U.S. industrial gas industry and where are they located?

Air Liquide, The Linde Group, Matheson Tri-Gas and Praxair, Inc. are the major domestic industrial gases manufacturers. Combined, these companies employ approximately 60,000 workers in the U.S. and are active in every state. In addition to manufacturing facilities, many companies also have active research and development facilities.

*Economic Contributions of Industrial Gases - American Chemistry Council Economics and Statistics



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How are industrial gases used?

For more than 100 years, the industrial gases industry has supplied sectors that are essential to the economy nationwide. The industrial gases industry:

- **Benefits patients in hospitals and at home:** Life-saving and enhancing oxygen; helium for MRIs; therapeutic gases; nitrous oxide; laboratory analytical gases.
- **Helps clean the air:** Oxygen and related technologies improve the efficiency of combustion processes used in steel, aluminum, glass, chemicals, fossil fuel-based power generation and other industries, helping to increase yields and reduce emissions.
- **Creates cleaner transportation fuels:** Hydrogen lowers the sulfur content of transportation fuels to help refiners meet environmental regulations; hydrogen also is used directly as an emissions-free fuel by forklift fleets, passenger vehicles and buses.
- **Helps purify water supplies:** Oxygen and carbon dioxide improve water treatment.
- **Enhances domestic energy production and efficiency:** Carbon dioxide and nitrogen increase oil and natural gas production; specialty gases help produce advanced lighting and insulation materials as well as photovoltaic cells used in solar energy panels.
- **Powers space exploration:** Hydrogen and oxygen fuel NASA's rockets.
- **Ensures the safe transport and preservation of food:** Carbon dioxide and nitrogen chill and freeze foods to capture freshness, enhance food safety and extend shelf life; Carbon dioxide adds the fizz to drinks.
- **Enables advanced electronics:** Gases and chemicals are integral to the manufacturing of semiconductor chips for computers, TVs and cell phones.

The American Chemistry Council Industrial Gases Panel

The Industrial Gases Panel at the American Chemistry Council (ACC) is comprised of the leading industrial gases companies in the U.S. The panel's primary activities include education, outreach and advocacy about the sector's products, their uses and potential economic impacts. For more information about the panel, please contact Kevin Moran at kevin_moran@americanchemistry.com or (202) 249-6731.