

# Rare Gas Applications

Specializing in EPA, Electronic,  
Medical, and NMR & MRI

GLOBAL REACH, LOCAL SERVICE



The logo consists of three overlapping circles with dots at their intersections, resembling an atomic model. **Middlesex Gases  
& Technologies Inc.**

## THE MIDDLESEX SPECIALTY GAS ADVANTAGE

Middlesex Gases & Technologies is a premier supplier of high quality specialty gases used for achieving precise, pure results across a broad range of life sciences, electronic and environmental applications. Family-owned, Middlesex Gases has developed an unprecedented level of quality service and technical innovation based upon our 60+ years of experience.

A total solution provider, Middlesex helps you design or fine-tune your gas system to streamline your business and make your operation safer and more efficient. We help you select the right gas for your application and provide high-performance gas handling equipment for expert analysis, process control and instrument calibration.

## ISO ACCREDITATION

Middlesex Gases & Technologies has been accredited with ISO/IEC 17025:2005, after being assessed by Perry Johnson Laboratory Accreditation (PJLA), an “accreditation body” (AB) meeting International Laboratory Accreditation Cooperation (ILAC) standards.



# ENVIRONMENTAL & ENERGY



Middlesex provides a comprehensive selection of specialty gases and equipment to meet complex and ever-changing regulatory requirements from the EPA and other agencies. Our knowledge and experience in environmental gases enable us to continuously develop innovative new gas mixtures to meet the expanding needs of stack testers, end users and others. You can count on compliance for daily testing, linearities and CGAs.

Middlesex Gases offers a complete line of Volatile Organic Compounds (VOC ) standards for Method TO-15 applications and other lab needs, such as ASTM standards and generators. These calibration products provide cost effective solutions for every ambient monitoring need.

- EPA Protocols
- Primary/NIST Traceable Standards
- Certified Standards
- Zero & UHP Gases
- Mercury Calibrator Gases
- Greenhouse Gas Standards
- BTU Calibration Mixes
- SF6 Recovery Services
- Disposable Cylinders for Industrial Hygiene & Lab
- Packs, Bulks, & Tube Trailers
- N2, Ozone & NO2 Generators
- TO-15 Calibration Mixes to < 10 ppb
- Full List of Hazardous Air Pollutant Analytes
- Custom VOC Mixes such as Mass APH & NJ LL
- Vapor Intrusion
- Forensic TO-15
- Landfill Gas Calibration Gases
- Indoor Air Quality
- Semi-Volatiles

## ELECTRONIC

From foundries to photonics and fabs, Middlesex offers a total solution for your electronic specialty gas, equipment and service needs. We work with a wide range of facilities—including universities, start-ups and full production facilities—to design and install state-of-the-art gas delivery systems. We help you determine the right purity of gas for your applications and ensure your gas handling systems are operating efficiently for quality process control and instrument calibration.



Middlesex provides this extensive portfolio of gases and manufacturing applications at the levels of the majors, including:

- Silane
- Etchants
- Dopants
- Fluorocarbons
- Forming Gases
- Ion Implant Gases
- Laser Mixes
- Phosphine
- Germanium
- VLSI/Sputtering Grade Pures
- CVD/PVD/ALD Applications
- Optoelectronics/Fiber Optic
- Photovoltaics
- Nano/Quantum Dot
- Photolithography
- Full Equipment Needs including Fully Automated Cabinets, Scales and Absolute Regulators

## NMR & MRI SERVICES

Middlesex Gases has partnered with industry leaders to become a leading resource for NMR/MRI application needs.

- Transfi II & Supply of Cryogenes
- Magnet Moves
- Magnet Refurbishment
- Magnet Installation
- Quench Recovery
- Run-down, Warm-up
- Mapping Program
- Ice Removal
- Helium Manifold Seal/Leak Check

## SERVICES & PRODUCT OFFERING

Middlesex is truly a “one-stop shop” when it comes to specialty gases and equipment. We offer a complete turnkey operation of your facility or lab’s gas system. Our comprehensive value-added services enhance the effectiveness and quality of our technology-driven products.

Our Purity Audits help you assess the efficiency of your gas use and equipment. We evaluate your current process and then recommend the best type and level of gas and equipment to use to ensure the purest gas, reduce any unnecessary waste and achieve optimal results.

Our services and products include:

- Purity Audits
- Free Safety Seminars
- On-line Usage Monitoring
- NMR and MRI Service Applications
- Total Customer ‘Hands Off’ Ordering, Delivery & Maintenance
- Microbulk Deliveries (N<sub>2</sub>/Ar/CO<sub>2</sub>)
- Custom Standards
- Cryogenic Installations
- Dry Ice
- Freezer Repair & Maintenance
- NMR Magnet Repair
- UHP & Research Grade Gases
- Custom Standards
- Fluorocarbons
- Rare Gases
- Disposable Cylinders

## LIFE SCIENCES

From anesthesia to medical device requirements, our extensive selection of quality specialty gases for the life sciences environment includes:

- Liquid Nitrogen
- Medical Air
- Liquid Helium
- Blood Gas Mixes
- Nitrogen
- Lung Diffusion Mixes
- Oxygen
- Carbon Dioxide
- Aerobic Gas Mixes
- Anaerobic Gas Mixes
- Nitrous Oxide, USP
- Ethylene Oxide
- Microbulk & Bulk



## EQUIPMENT

We offer one of the most comprehensive lines of equipment in the industry, including:

- Regulators
- Automatic Changeovers
- Semi-automatic Changeovers
- Gas Cabinets
- Manifolds
- Point-of-use Panels
- Molecular Sieves
- Gas Generators
- Mass Flow Controllers
- Gas Blenders

## ADDITIONAL AREAS OF EXPERTISE

- Defense Industry—Liquid Helium, Isotopes, Surrogate Mixes, Homeland Security Blends, Small Business Requirements, CAGE #OHDF8
- Food & Beverage: CO<sub>2</sub>, MAP, Dry Ice, Cryogenics



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