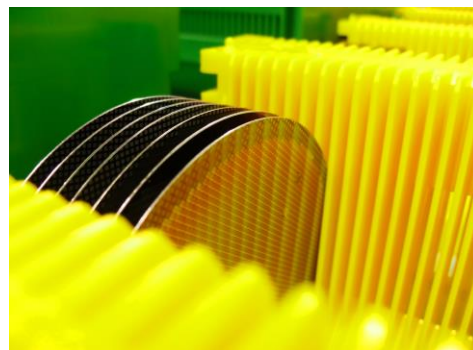


## FLUOROTECHNOLOGY FOR SEMICONDUCTOR APPLICATIONS

FluoroTechnology products enable the manufacture of semiconductors. This technology is used in tanks, valves, pumps and piping to create the ultra-pure manufacturing environments that are necessary for micro-electronics. FluoroTechnology also increases equipment longevity by providing corrosion resistance against harsh chemicals and improves safety by reducing the potential for leaks. Fluoropolymers and other fluorinated substances are also used for plasma machinery, etching materials, cleaning fluids and wetting surfactants for chemical etchants.



The use of FluoroTechnology in the semiconductor industry supports more than 95,000 jobs in the U.S. and more than 91,000 jobs in Europe. Globally, FluoroTechnology materials and products specific to the semiconductor industry generate a total of \$752.6 billion in economic output.<sup>1</sup>

### High-Performance Applications

- Etching and Resist Materials
- High-Purity Drying and Cleaning Fluids
- Polymers for Processing
- Wetting Surfactants for Chemical Etchants and other Processing
- Gaskets and “O” Rings for Severe Environments
  - Plasma and Vapor Deposition Machinery
  - Processing Equipment
- Tanks, Valves, Pumps and Piping

### FluoroCouncil’s Commitment to Sustainability

FluoroCouncil and its members are working with regulatory authorities and other stakeholders worldwide to innovate and drive increasingly sustainable FluoroTechnology solutions, including the global transition from long-chain PFAS<sup>2</sup> to alternatives such as short-chain fluorochemicals. Short-chain fluorochemicals are alternatives to the long-chain PFAS that provide the same valuable properties, but with improved environmental and human health profiles.

All FluoroCouncil companies are charter members of the [2010/2015 PFOA Stewardship Program](#), a global partnership with U.S. Environmental Protection Agency (EPA) based on goals to eliminate perfluorooctanoic acid (PFOA) and related chemicals from facility emissions and product content by the end of 2015. Similar programs are in place with Environment and Health Canada. A significant volume of data has been developed and rigorously evaluated by industry and regulators, supporting the conclusion that the short-chain alternative substances offer equivalent performance with improved environmental and human health profiles.

According to [the U.S. EPA](#), “data indicate that [shorter-chain chemicals] have substantially shorter half-lives in these animals than PFOA and are less toxic than long-chain PFAC chemicals.”

<sup>1</sup> Based on preliminary estimates of 2013 data by the American Chemistry Council.

<sup>2</sup> PFAS = per- and polyfluoroalkyl substances

#### THE FLUOROCOUNCIL MEMBERS ARE:

Archroma Management LLC, Arkema France, Asahi Glass Co., Ltd., Daikin Industries, Ltd., Solvay Specialty Polymers, and The Chemours Company LLC