

Chemistry Critical to National Priorities

U.S. chemical producers provide chemistry needed to achieve national priorities, including the manufacturing of computer chips and electric vehicles (EVs), producing clean energy, rebuilding the country's infrastructure, and supporting healthcare, biotechnology, agriculture and national defense. But a surge in new regulatory restrictions and misaligned priorities between the Biden Administration and its agencies is jeopardizing the ability to produce and develop many of these chemistries critical to America's future and U.S. competitiveness. For more information visit chemistrycreates.org

Case Study: Clean Energy

U.S. chemical manufacturers produce materials used in batteries; hydrogen fuel cells and electrolyzers; electric vehicles; EV charging equipment; wind energy and solar energy; small modular nuclear reactors; carbon capture, utilization and storage just to name a few.

PFAS:

Fluoropolymer coatings help solar panels and wind turbines withstand rain, hail and environmental contaminants.

Formaldehyde: Formaldehyde is used for the production of some epoxy resins which are then largely employed in composites and adhesives needed to produce wind turbine rotor blades and other structural elements.

Cyclic Aliphatic Bromide Cluster (HBCD): used as a potential flame retardant for EV chargers.

Methylene Chloride: used as a refrigerant in electric vehicle air conditioners.

Trichloroethylene (TCE): used to create PVDF, which is used as insulation on electrical wires.

PFAS: Fluoropolymers are used in films for photovoltaic solar cells to help protect against extreme heat and moisture, while also providing high-performance electrical insulation properties for the wiring inside the panels.

PFAS: Fluoropolymers support efficient electrolytic ionic migration, allowing for smaller, more efficient lithium batteries.

Methylene Chloride: Used to make polycarbonate, which is used in various applications such as photovoltaic (PV) panels, skylights, greenhouses, and canopies.

Ethylene Oxide: used to produce ethylene carbonate, which is used in lithium-ion batteries to allow the electricity generated to travel more easily through the battery.

Methylene Chloride: used as a refrigerant in electric vehicle air conditioners.

Formaldehyde: formaldehyde-based technologies are used to make interior molded and under-the-hood components that allow for higher fuel efficiency by reducing vehicle weight.

Ethylene Oxide: Used to create PET (polyethylene terephthalate) flexible photovoltaic systems. PET is a flexible polymer that can be used as the top layer of solar panels.