Electronics

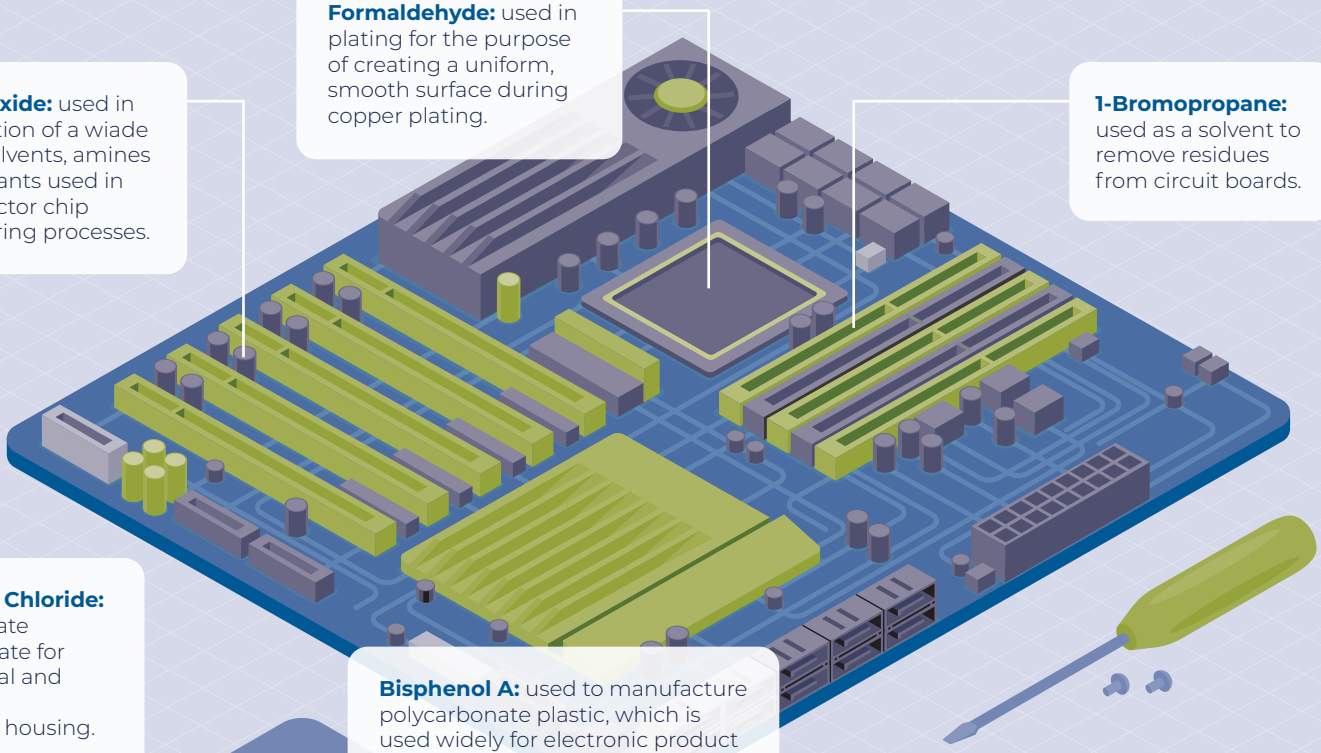
CHEMISTRY CREATES AMERICA COMPETES™

Chemistry Critical to National Priorities

U.S. chemical producers provide chemistry needed to achieve national priorities, including the manufacturing of computer chips and automobiles, energy development, rebuilding the country's infrastructure, and supporting healthcare and biotechnology. Pro-growth, science-based policies are needed to ensure we can produce more of these critical chemistries here at home and help make America the world's manufacturing superpower. For more information visit: **chemistrycreates.org**

Case Study: Electronics

U.S. chemical manufacturers produce materials used in batteries, electronics housing, wiring, screens, solar panels, telecommunications technology, and are constantly creating more cutting-edge technology with the help of chemistry.



Formaldehyde: used in plating for the purpose of creating a uniform, smooth surface during copper plating.

Ethylene Oxide: used in the production of a wiade variety of solvents, amines and surfactants used in semiconductor chip manufacturing processes.

1-Bromopropane: used as a solvent to remove residues from circuit boards.

Methylene Chloride: used to create polycarbonate for the electrical and electronic equipment housing.

Bisphenol A: used to manufacture polycarbonate plastic, which is used widely for electronic product casings, screens, components, and accessories.

N-Methyl pyrrolidone (NMP): essential element to manufacture solvent of most lithium-ion batteries necessary for electronic devices.

Plastics: plastics such as HDPE are used to create containers and parts to meet the industry's rigid demands for quality and performance.

PFAS: fluoropolymers are used in electronics casing to help protect against extreme heat and moisture, while also providing high-performance electrical insulation properties for the wiring inside.

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

1,3-Butadiene: used to make wire and cable jacketing and electrical coatings.