# **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: Infrastructure**

U.S. chemical manufacturers produce materials used in road construction, bridges, dams, water treatment and distribution, rail, energy-efficient buildings, electricity transmission, and EV charging stations.

#### N-Methyl-2-pyrrolidone (NMP):

used as a solvent in the production of paints and coatings, caulk and sealants. **Ethylene Oxide:** Used to develop polyester resins that are used in concrete to lengthen the life of bridges and roads.

**1,3-Butadiene:** used to make structural cements and bridge mounts.

#### Formaldehyde:

formaldehyde-based resins are used to manufacture composite and engineered wood products used in cabinetry, countertops, moldings, furniture, shelving, stair systems, flooring, wall sheathing, support beams and trusses and many other applications.

Phthalates: Used as a coating in electrical wiring due to their durability, low volatility, low temperature flexibility, low conductivity, heat resistance and electrical resistivity.

### 1-Bromapropane:

used as a solvent in asphalt production.

**PFAS:** Fluorotechnology is used in building facades and surfaces to help improve durability, UV resistance and corrosion resistance.

**Ethylene Oxide:** Used to develop polyester resins that are used in concrete to lengthen the life of roads.

#### **Methylene Chloride:**

used as a solvent for traffic paints and other coatings where fast solvent evaporation is important.

Ethylene Oxide: Ethylene oxide and its derivatives are used in commercial & residential roofing, among many other building applications.

Perchloroethylene (PCE): is used in paints and coatings.

#### 1,4-Dioxane:

used as a solvent in paints, varnishes and lacquers. **Plastic:** Plastic pipes made from products like polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC) and high-density polyethylene (HDPE) help conserve energy and water by creating virtually leak-free pipes that are not prone to corrosion and resist environmental stress.