

Sustainable Chemistry Principles

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Sustainable Chemistry is a significant topic in the global environmental conversation, among product manufacturers and users, brands and retailers, and with policy makers on Capitol Hill. While we recognize there are a variety of ways that stakeholders define sustainable chemistry, the members of the American Chemistry Council (ACC) embrace the core principles of Sustainable Chemistry outlined below to help protect human health, conserve natural resources, minimize waste, enhance our communities and society, and contribute to technical innovation and economic success.



HOLISTIC APPROACH

Balancing the three elements of sustainability: (1) environmental protection, (2) social development, and (3) economic development is critical to maximizing societal benefits and overall contributions to sustainable development. Sustainable chemistry considers a broad range of factors to advance more sustainable products and processes. These include managing resource needs and potential impacts of products and processes on human health and the environment.



LIFE CYCLE & SYSTEMS THINKING

Chemical manufacturers strive to optimize multiple sustainability aspects of chemicals through all stages of their life cycle and with consideration for the concept of circularity, including supply chain origin, raw material extraction, manufacturing, product packaging and distribution, use/reuse, and end of life management.



DESIGN FOR SAFE USE

Product safety assessments use the best available scientific knowledge and weight of the evidence methods for evaluating scientific studies. Information used to support chemical management decisions should be appropriate for the intended use and any associated potential exposure. Chemical manufacturers strive to continually reduce risk to human health and/or the environment.



FOSTER INNOVATION

Sustainable chemistry concepts stimulate innovation across sectors to design, discover and deploy new chemicals, production processes, and product stewardship practices that advance sustainability. ACC members seek opportunities to contribute to sustainable development goals at the highest possible environmental, social, and economic value. This means optimizing pathways to innovation, reducing barriers and uncertainties, investing to overcome technical and logistical challenges, and protecting intellectual property rights.