Alternatives Assessment is a process for identifying, comparing and selecting safer alternatives to chemicals of concern (including those in materials, processes or technologies) on the basis of their hazards, performance, and economic viability. A primary goal of Alternatives Assessment is to reduce risk to humans and the environment by identifying safer choices.

These Principles for Alternatives Assessment are designed to guide a process for well informed decision making that supports successful phase out of hazardous products, phase in of safer substitutes and elimination of hazardous chemicals where possible.

**REDUCE HAZARD** Reduce hazard by replacing a chemical of concern with a less hazardous alternative. This approach provides an effective means to reduce risk associated with a product or process if the potential for exposure remains the same or lower. Consider reformulation to avoid use of the chemical of concern altogether.

**MINIMIZE EXPOSURE** Assess use patterns and exposure pathways to limit exposure to alternatives that may also present risks.

**USE BEST AVAILABLE INFORMATION** Obtain access to and use information that assists in distinguishing between possible choices. Before selecting preferred options, characterize the product and process sufficiently to avoid choosing alternatives that may result in unintended adverse consequences.

**REQUIRE DISCLOSURE AND TRANSPARENCY** Require disclosure across the supply chain regarding key chemical and technical information. Engage stakeholders throughout the assessment process to promote transparency in regard to alternatives assessment methodologies employed, data used to characterize alternatives, assumptions made and decision making rules applied.

**RESOLVE TRADE-OFFS** Use information about the product’s life cycle to better understand potential benefits, impacts, and mitigation options associated with different alternatives. When substitution options do not provide a clearly preferable solution, consider organizational goals and values to determine appropriate weighting of decision criteria and identify acceptable trade-offs.

**TAKE ACTION** Take action to eliminate or substitute potentially hazardous chemicals. Choose safer alternatives that are commercially available, technically and economically feasible, and satisfy the performance requirements of the process/product. Collaborate with supply chain partners to drive innovation in the development and adoption of safer substitutes. Review new information to ensure that the option selected remains a safer choice.

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**THE COMMONS PRINCIPLES FOR ALTERNATIVES ASSESSMENT**

Addressing Chemicals of Concern to Human Health or the Environment

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In October 2012, a group of 26 environmental health scientists, advocates, funders and policy makers met in Boston, Massachusetts for two days of meetings entitled *Building a Chemical Commons: Data Sharing, Alternatives Assessment and Communities of Practice*. One of the key outcomes of this meeting was an agreement regarding the need for a common definition and set of principles for chemicals alternatives assessment. Following this meeting, a subcommittee met over four months in 2013 to refine a consensus set of principles. These principles were based on earlier foundational work by the Lowell Center for Sustainable Production, the Massachusetts Toxics Use Reduction Institute, the Environmental Defense Fund, and the BizNGO Working Group. These principles are now available to be shared and used in framing discussions about alternatives assessment and to guide decision making about safer chemical use.

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*“Safer Alternative: An option, including the option of not continuing an activity, that is healthier for humans and the environment than the existing means of meeting that need. For example, safer alternatives to a particular chemical may include a chemical substitute or a re-design that eliminates the need for any chemical addition.” From Tickner, J. and Eliason, P. Alternatives Assessment for Chemicals: From Problem-Evaluation to Solutions-Assessment and Implementation: A background paper created expressly for use in the March 31–April 1, 2011 Interagency Discussion on Alternatives Assessment, EPA Potomac Yards Conference Facility, Crystal City, VA. March 24, 2011*
SIGNATORIES OF THE COMMONS PRINCIPLES FOR ALTERNATIVES ASSESSMENT

Kate Anderson, MA, Director of Education, Beyond Benign
Anne-Sofie Andersson, Graduate Chemist, Director, ChemSec
Tammy L. Ayers, Manager, Materials Chemistry Strategy & Practice, Global Environmental Sustainability, Steelcase, Inc.
Jamie Bainbridge, Director, Textile Development & Sustainability, NAU
Kate Bailey, Program Developer, Eco-Cycle, Inc.
Susan Baker, EdM, President, Shareholder Advocacy & Corporate Engagement, Trillium Asset Management, LLC
Indira Balkissoon, MS, VP, Techlaw, Inc.
Davis Baltz, MS, Precautionary Principle Project Director, Commonweal
Patricia Beattie, PhD, DABT, VP, SciVera, LLC
Mike Belliveau, Executive Director, Environmental Health Strategy Center
Anthony Bernheim, FAIA, LEED Fellow, Principal, Bernheim + Dean, Inc.
Libby Bernick, PE, LEED AP BD+C, Sr VP, TruCost
Alan Best, MBA, FCIPD, Managing Director, Alan Best Sustainability Limited
Ann Blake, PhD, Environmental & Public Health Consulting
Gregory D. Blake, MBA, Director, Strategic Development, Biosynthetic Technologies
Charlotte Brody, RN, Director of Chemicals & Green Chemistry, BlueGreen Alliance
Janet Brown, EDAC, Director, Facility Engagement, Practice Greenhealth; Director, Content & Outreach, Healthier Hospitals Initiative
Michael S. Brown, PhD, Principal, Brown & Wilmanns Environmental, LLC
Eden Brukman, Technical Director, Health Product Declaration Collaborative
Amy Cannon, PhD, Executive Director, Beyond Benign
Lin Kaatz Chary, PhD, MPH, Consultant, Great Lakes Green Chemistry Network
Sue Chiang, MPH, MPR, Co-Director, Pollution Prevention, Center for Environmental Health
Barry A. Cik, Board Certified Environmental Engineer, Co-Founder, Naturepedic
James Clark, PhD, Professor of Chemistry, University of York
Stacia Clinton, RD, LDN, Healthy Food in Health Care Coordinator, Health Care Without Harm
Bradley Hugh Colton, MBA, Strategic Projects, Global Procurement, Global Operations Services, Marriott International, Inc.
Caroline Cox, MA, Research Director, Center for Environmental Health
Holly Davies, PhD, Sr Toxicologist, Washington State Department of Ecology
Mia Davis, MA, VP, Beautycounter
Joseph DiGangi, PhD, Sr Science & Technical Advisor, IPEN
Tracey Easthope, MPH, Director, Environmental Health Project, Ecology Center
Sally Edwards, ScD, Sr Research Associate, Lowell Center for Sustainable Production
Pam Elionias, MS, Industry Research Program Manager, Sr Associate Director, Massachusetts Toxics Use Reduction Institute
James Ewe1, MA, Director, Sustainable Materials, GreenBlue
Ken Geiser, PhD, Professor Emeritus, University of Massachusetts Lowell
Rachel Gibson, JD, MPP, Director, Safer Chemicals Program, Health Care Without Harm
Michael Green, MS, MPP, Center for Environmental Health
Tim Greiner, MBA, MA, Co-Founder, Managing Director, Pure Strategies
Joshua A. Grice, MPA, Research Analyst, Reducing Toxic Threats Initiative, Washington State Department of Ecology
Robin Guenther FAIA, LEED AP, Sustainable Healthcare Design Leader, Perkins+Will
Helen Gyger, Marketing & Research Development Specialist, DesignInteg
Sonja Haider, FA, Business & Investors Advisor, ChemSec
Ronald Hart, PhD, Former Director, National Center for Toxicological Research, US Food and Drug Administration
Erik Harrington, MS, Principal, Green Advantage Consultants
Michelle Mauthe Harvey, MBA, Sr Manager, Retail, Environmental Defense Fund
Magnus Hedenmark, MS, Chief Sustainability Officer, Coresource AB
Lauren Heine, PhD, Co-Director, Clean Production Action
Helen Holder, MS, Corporate Materials Selection Manager, Hewlett-Packard
Jeff Hughes, Manager, Sustainability & Environmental Stewardship, Seattle Children’s Hospital
Jessica Iclisoy, Founder, California Baby
Alastair Iles, PhD, Associate Director, Policy & Law, Berkeley Center for Green Chemistry; Assistant Professor, Environmental Science, Policy and Management, University of California Berkeley
Molly Jacobs, MBS, Senior Research Associate, Lowell Center for Sustainable Production
Bob Kerr, MA, Principal, Co-Founder, Pure Strategies
Susan Klosterhaus, PhD, MPH, Sr Scientist, Cradle to Cradle Products Innovation Institute
Frank Knapp Jr, President & CEO, South Carolina Small Business Chamber of Commerce
Steve Koo, LEED AP ID+C, Global Sustainability Manager, Haworth, Inc.
Ally LaTourelle, Esq, JD, Partner, BioEconomy Partners, LLC
Tom Lent, Policy Director, Healthy Building Network
David Levine, Co-Founder, CEO, American Sustainable Business Council
Nancy Linde, MS, Toxicologist, NSF International
Richard A. Lipoff, PhD, Executive Director, Investor Environmental Health Network
Raymond Lizotte, Director, IT Environmental Stewardship Office, Schneider Electric
Susan Lyons, President, Designtex
Timothy Malloy, JD, Professor of Law, Faculty Director, Sustainable Technology & Policy Program, University of California Los Angeles
Roger McFadden, VP, Sr Scientist, Staples, Inc.
Bryan McGann, Deputy Director, Policy & Engagement, American Sustainable Business Council
Teresa L. McGrath, Supervising Toxicologist, Green Chemistry Programs, NSF International
Ben Mee, Textile Sustainability Specialist, Textile Exchange
Elise Kann, MEd, Director, The Collaborative on Health & the Environment
Samuel B. Moore, PhD, Managing Director, Hohenstein Institute America, Inc.
Martin Mulvihill, PhD, Associate Director, Education & Outreach, Berkeley Center for Green Chemistry; Chemist, Center for Occupational & Environmental Health, University of California Berkeley
Mark Newton, VP, CSR & Sustainability, Timberland
Dara O’Rourke, PhD, Associate Professor, University of California Berkeley; Co-Founder, GoodGuide
Brian Penttila, PhD, Chemical Engineer, Pacific Northwest Pollution Prevention Resource Center
Jerry Poje, PhD, Founding Board Member, US Chemical Safety & Hazard Investigation Board
Colin Price, MA, Director, Research & Market Innovation, Oregon Environmental Council
Rui Resendes, PhD, President, GreenCenter USA
Paul Richard, Sustainability Director, Warner Babcock Institute for Green Chemistry
Joseph P. Rinko, MA, Founder, President, SciVera, LLC
Jonathan M. Rivin, PhD, Waste Management Specialist, Solid & Hazardous Waste Education Center, University of Wisconsin
Per Rosander, Director, EnviroAction
Christine Rosen, PhD, Associate Director, Business & Economics, Berkeley Center for Green Chemistry; Associate Professor, Haas Business and Public Policy Group, University of California Berkeley
Mark Rossi, PhD, Co-Director, Clean Production Action
Tatiana Santos, Sr Policy Officer, Chemicals & Nanotechnology, European Environmental Bureau
Jennifer Sass, PhD, Senior Scientist, Natural Resource Defence Council
Ted Scheltter, MD, MPH, Science Director, Science & Environmental Health Network
Julie Schoenung, PhD, Professor, Department of Chemical Engineering & Materials Science, University of California Davis
Megan Schwarzen, MD, MPH, Environmental Health Scientist, Center for Occupational & Environmental Health, University of California Berkeley
Greg Scott, Materials Development & Sourcing Manager, Mountain Equipment Co-op
Ted Smith, Coordinator, International Campaign for Responsible Technology
Jan D. Stensland, LEED AP BD+C ID+C, Inside Matters
Fran Teplitz, Director, Social Investing & Policy, Green America
Matthew Thurston, Manager, Product & Supply Chain Sustainability, Recreational Equipment, Inc.
Laurie Valeriano, Executive Director, Washington Toxics Coalition
Vesela Veleva, ScD, Associate Director, Center for Sustainable Enterprise & Regional Competitiveness, College of Management, University of Massachusetts Boston
Bill Walsh, JD, Founder & Executive Director, Healthy Building Network
Sarah Westervelt, MA, e-Stewardship Policy Director, Basel Action Network
Margaret Whittaker, PhD, MPH, Managing Director, Chief Toxicologist, ToxServices, LLC
Howard Williams, VP, General Manager, Construction Specialties
Ryan Williams, Director of Sustainability, Method Products, Inc.
Jeff Wilson, MBA, Steering Committee, Chemicals Management Working Group, Outdoor Industry Association
Michael Wilson, PhD, MPH, Director, Labor Occupational Health Program, School of Public Health, University of California Berkeley
Martin Wolf, MA, Director, Product Sustainability & Authenticity, Seventh Generation