



BizNGO Guide to Safer Chemicals

November 30, 2011

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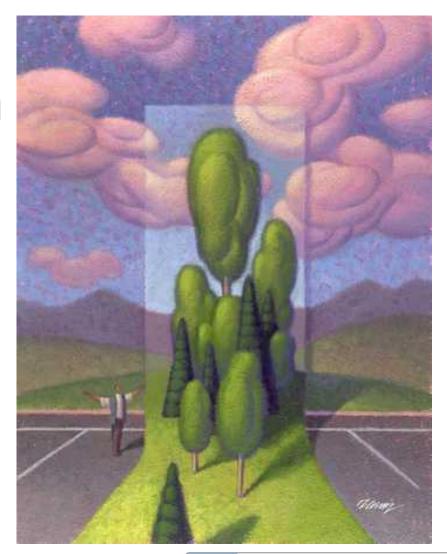


Our mission

To promote the creation and adoption of safer chemicals and sustainable materials in a way that supports market transitions to a healthy economy, healthy environment, and healthy people.

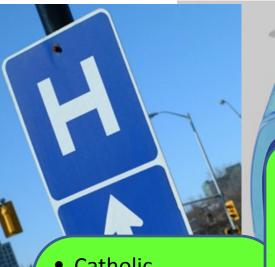
Our objectives include ...

- Model new type and degree of collaboration
- Develop tools and continuous improvement criteria
- Advance policy initiatives









Catholic Healthcare West

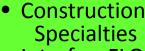
Kaiser Permanente

Health Care Without Harm

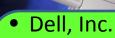
- Hospira, Inc.
- Practice Greenhealth
- Premier, Inc.



- Nike
- Seventh Generation
- Staples
- Whole Foods



- InterfaceFLOR
- Healthy Building Network
- Perkins+Will
- Shaw



- Electronics Take Back Coalition
- Google
- Hewlett-Packard
- Seagate



- Clean Water Action
- Ecology Center
- EDF
- Env'l Health Strategy Center
- Investor Env'l Health Network
- NRDC



BizNGO Projects

Chemicals

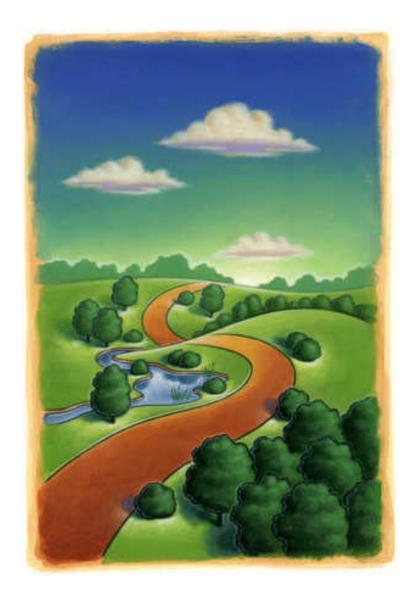
- Principles for Safer Chemicals
- Guide to Safer Chemicals

Materials

- Principles for Sustainable Plastics
- ➤ Plastics Scorecard tool for integrating green chemistry into material assessments

Policy

- ➤ Gov't Initiatives TSCA, CA Green Chemistry
- ➤ Industry Standards GRI, Sustainability Consortium, ULE





BizNGO Principles for Safer Chemicals

(formerly the "Guiding Principles for Chemicals Policy")

Endorsers include ...

- Brooks Sports
- Catholic Healthcare West
- Construction Specialties, Inc.
- Health Care Without Harm
- Hewlett-Packard Company
- Hospira, Inc.
- Kaiser Permanente
- Method
- Novation
- Perkins+Will
- Practice Greenhealth
- Premier, Inc.
- Seventh Generation
- Staples, Inc.
- Whole Foods Market, Inc.

1. Know and disclose product chemistry

2. Assess and avoid hazards

3. Commit to continuous improvement

4. Support public policies and industry standards



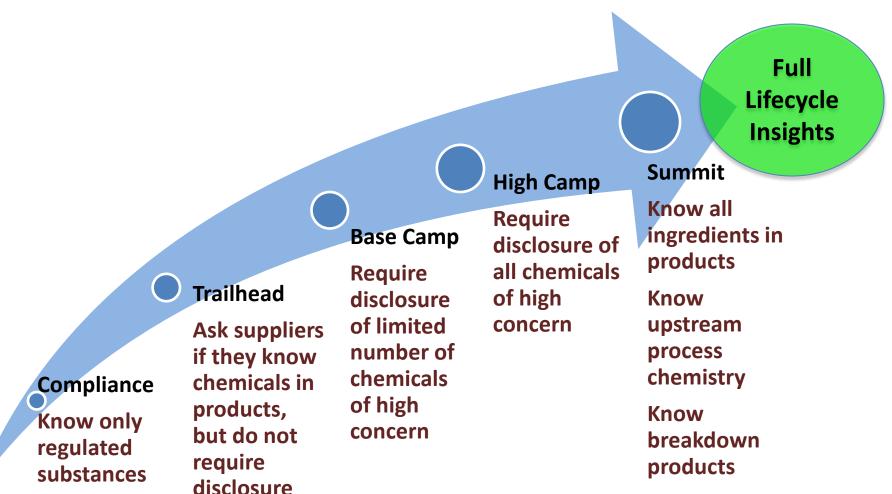
BizNGO Guide to Safer Chemicals





BizNGO Guide to Safer Chemicals - Benchmarks

Principle #1a - Knowing Ingredients





Highlights of Seagate's Product Stewardship System

Alignment to standards

- Seagate uses IPC 1752 as our materials reporting format
 - IPC 1752 is an open, industry data standard, not a Seagate-specific format

Full disclosure

- "FMD" (Full Materials Disclosure) is used to manage compliance to changing regulations and customer specifications
- Software automation is used to gather and manage data, grade compliance

Stability

Supplier reporting requirements and formats seldom change

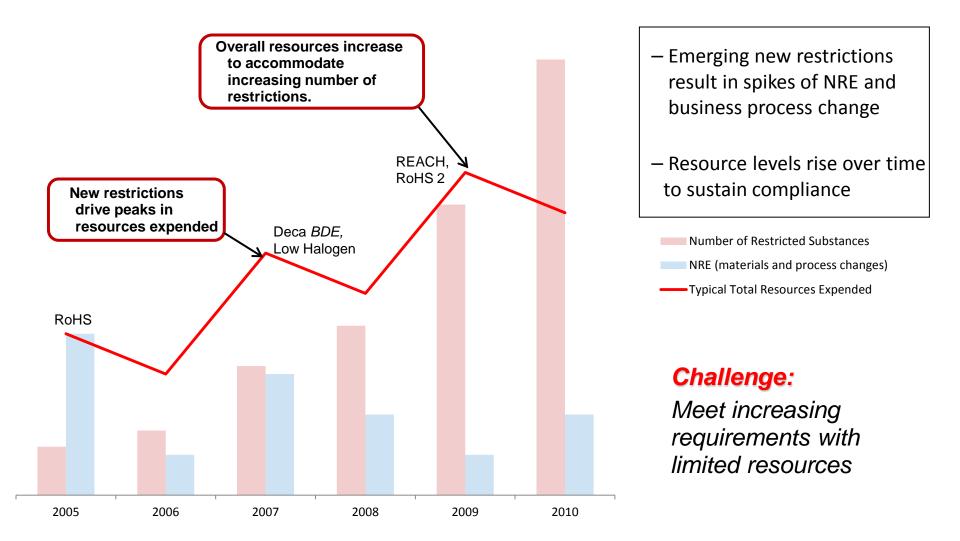
Security

 Seagate does use third party content collection services, but all data are maintained only in Seagate systems – and supplier data are kept confidential

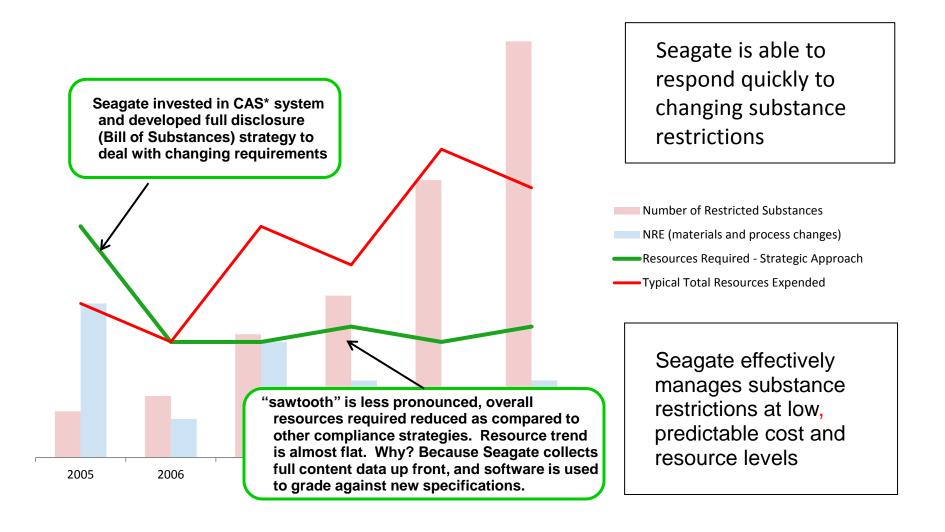
Supplier responsibility

- Suppliers must provide full-disclosure data
- Suppliers are responsible for engaging third party (WSP) services

Resources required to react to new substance restrictions typically follow a 'sawtooth' line, and increase over time

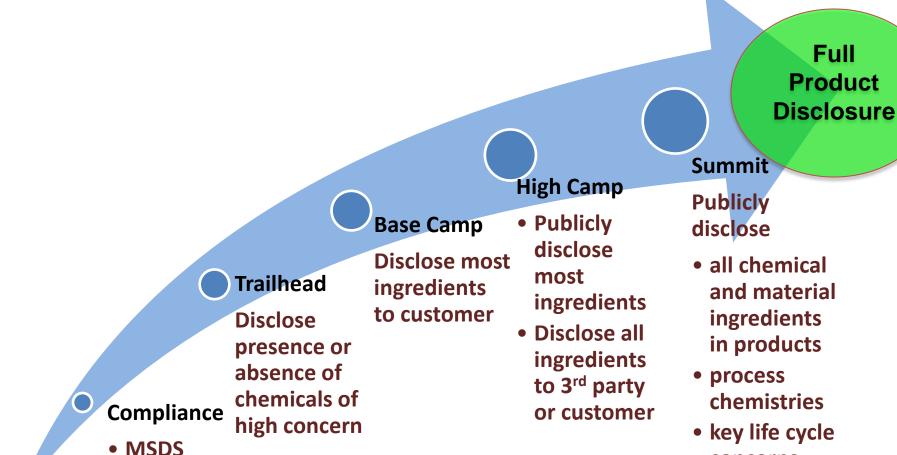


By investing early in full disclosure data, Seagate has been able to flatten the 'sawtooth' in resource requirements



BizNGO Guide to Safer Chemicals - Benchmarks

Principle #1b - Benchmarks for Disclosure



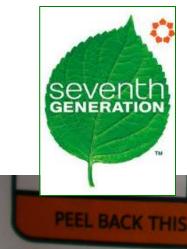


RoHS

Disclosing Ingredients in Products

BOMcheck .. net







PEEL BACK THIS LABEL TO VIEW OUR FULL INGREDIENTS LIST

/ Information: Please keep all cleaning products out of the reach of





GIVE NEW MEANING TO CLEANING

Our new standards for household cleaning products let you make the best choice for you.





- □ Full transparency, disclosure of ingredients on packaging by April 2012
- ☐ Independent 3rd party verified compliance to standards
- No ingredients with significant environmental or safety concerns
- ☐ No formaldehydedonors, preservatives which have the potential to release formaldehyde
- ☐ No phosphates, chlorine, or synthetic

□ 100% natural fragrances

□ No ingredients with

- moderate environmental or safety concerns
- ☐ No DEA, MEA or TEA—surfactants that have the potential to contain nitrosamines and other impurities
- No synthetic, petroleum-derived thickeners made from nonrenewable

sources

- Only 100% natural ingredients
- No petroleumderived ingredients

Health Product Declaration Form

Name & IDs	Tuff Stuff X42, product SKU SB4353		Mas	
Manufacturer	Ajax Manufacturing		Declar	
Description	High performance coating designed for painting bath stall walls and other wet surfaces.			

2) Product Contents Disclosure

Disclosure level 94 percent of intentionally added content's fully disclosed (100 percent is ideal).							
Name		CAS RN	%	Health Hazard Warnings			
1	Phenyl Glycidyl Ether		122-60-1	55%	Cancer and Male reproductive toxicity (CA Prop 65) R37 Irritating to respiratory system and R53 May cause long-term adverse eff environment (EC Risk)		
2 Alkyl (C12, C14) Glycidyl Ether		68609-97-2	21%	Irritating to skin and May cause sensitization by skin contact. (EC Risk) Full Green Screen assessed at Benchmark 2 by ChemService on 6/6/2011. F www.ChemService.com/GS54345			
3	Bis(2-(dimethylamino)ethyl)	no)ethyl) ether 3033-6		8%	No warnings found		
4	Polyethylene		9002-88-4	7%	No warnings found		
5	Trade secret		Not	3%	Category 1 Evidence of endocrine disruption activity (EC Endocrine)		
			disclosed		Very toxic to aquatic organisms and possible risk of impaired fertility (EC Risk		
6	Acme Zap-It Antimicrobial		Content not	3%	Not available		
	•		disclosed				
7	Silver		7440-22-4	2%	No warnings found		
8	Distillate Fuel Oils, Light		13463-41-7	1%	No warnings found		
AI	All known residuals disclosed to Lowest requirer		equirement	ts (ideal) X 100 ppm 1000 ppm As required on MSDS			
9	Formaldehyde		50-00-0	<1000	Group 1: Agent is carcinogenic to humans (IARC) and other cancer warnings		
	ppm		ppm	Generally accepted asthmagen (AOEC)			
		7			R23: Toxic by inhalation and R24: Toxic in contact with skin and R25: Toxic if		
		1		1	R34: Causes burns and R43: May cause sensitization by skin contact.(EC Ris		
	The manufacturer affirms that all known material contents were screened Pharos Chemical and Material Library from the Healthy Sc						
	for chemicals of concern and health warning listings using: Building Network						

BizNGO Guide to Safer Chemicals - Benchmarks

List)

Principle #2 - Assess & Avoid Hazards

Safer **Substitutes** Summit **High Camp** Select safer **Base Camp Benchmark** substitutes chemicals for both Assess using Green products hazards of **Trailhead** Screen and process chemicals in **Prioritize** chemistry products known and process Compliance chemicals chemistry **Avoid legally** of high restricted concern substances (e.g., SIN



The SIN List a tool for identifying high concern chemicals





Greening Consumer Electronics

moving away from bromine and chlorine

SONY ERICSSON

Bromine- and Chlorine-Free Mobile Phones

APPLE

Restriction of Elemental Bromine and Chlorine to Achieve Elimination of BFRs and PVC in Consumer Electronics Products

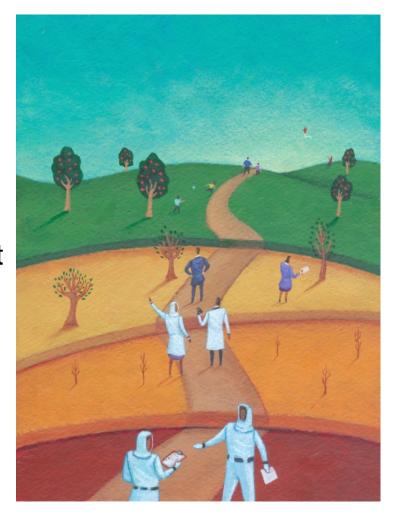
DSM ENGINEERING PLASTICS

Bromine- and Chlorine-Free Plastic Components





- Comparative Chemical Hazard Assessment Method
- Publicly accessible and transparent
- Data driven, systematic and scientifically robust
- Builds from:
 - Life cycle thinking
 - 12 Principles of Green Chemistry
 - US EPA DfE Chemical Alternatives Assessment method



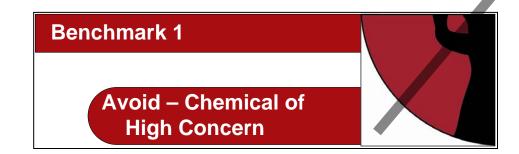




Prefer – Safer Chemical

Use but Still Opportunity for Improvement

Use but Search for Safer Substitutes





GREEN SCREEN

HP is the world's leading practitioner of the Green Screen tool.

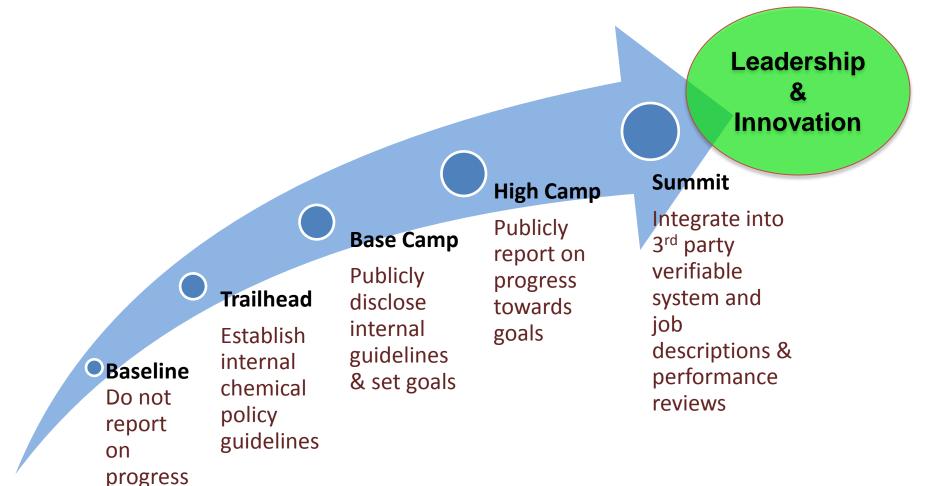
"HP has committed to replace restricted substances only with materials that are better for the environment and human health, and when there is sufficient assurance of required volumes and we have enough time to design and qualify the new material into the product. To assess alternative replacement materials we now use the Green Screen, a hazardbased assessment framework developed by the nongovernmental organization Clean Production Action."

HP's Global Citizens Report



BizNGO Guide to Safer Chemicals - Benchmarks

Principle #3 – Commit to Continuous Improvement







Using Safer Chemicals in Products Supports Preventive Health Care





Healthy Chemicals, Healthy Patients— Why Health Care Needs Federal Chemicals Reform Construction Specialties

> both to Poor in by the (EPA) a

tal risk





Green Buildings Need Safer Chemicals Policy Reform Taking a Precautionary Approach to Chemicals in Products





Comprehensive Chemicals Policy – Policy Statement

CHW Supply Chain Management will:

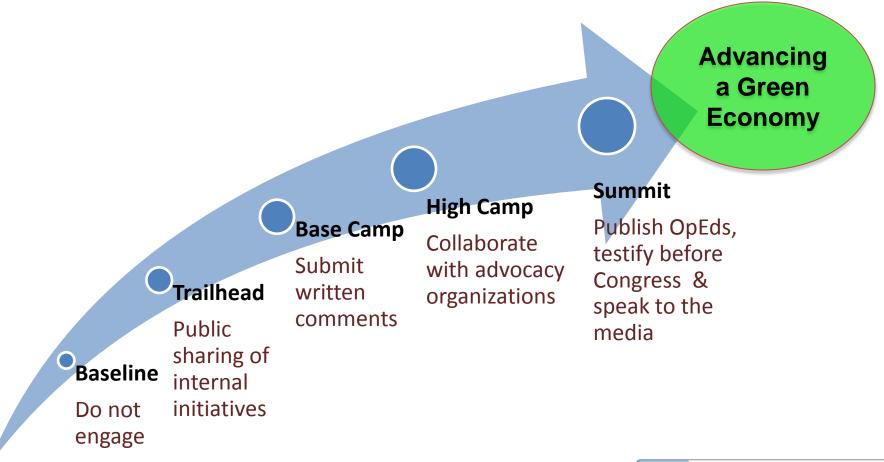
- Request product chemistry data from suppliers
- 2. Prioritize chemicals of high concern for elimination
- 3. Create contractual obligations w/suppliers to:
 - a. Avoid chemicals of concern
 - b. Substitute safer alternatives
- 4. Develop goals and metrics to measure progress and evaluate results





BizNGO Guide to Safer Chemicals – Benchmarks

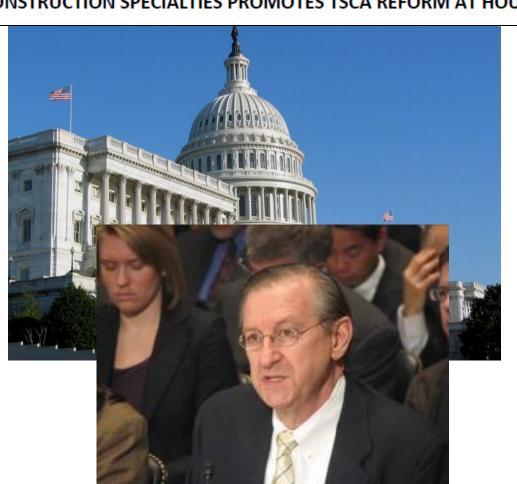
Principle #4 – Support Policies & Standards that Advance Principles #1 and #2





Support Public Policies & Industry Standards

CONSTRUCTION SPECIALTIES PROMOTES TSCA REFORM AT HOUSE HEARING



BUSINESS LEADERS
DISCUSS SAFER
CHEMICALS POLICIES

November 30, 2010
In this 7 min. video three business leaders discuss how their companies are implementing the BizNGO Principles



Engaging and Informing Policy

- Business and NGO collaboration
- Academia collaboration
- Public forums
- Media
- Inform and engage government agencies
- Engage and inform public policymakers
- Inform and engage at the organizational level
- Supply chain collaboration

Trends in Chemicals Management

- Transparency disclose chemicals in products
- Responsibility -- Supply Chain and Life Cycle, including feedstocks
- Demand for comprehensive hazard data on chemicals
- Demand for safer alternatives based on hazard assessment
- Leadership across many sectors, including: Health Care, Electronics, Buildings, Retail, Cleaning Products, Personal Care Products, Apparel & Footwear, Outdoor Industry





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