Safer Chemicals and Materials: Closing the Gap

8th Annual GC3 Innovators Roundtable
9 May 2013
Presentation Outline

• Seventh Generation
• Safer Consumer Products: Obstacles and Opportunities
• A Case Study: 1,4-Dioxane in Consumer Products
Seventh Generation Consumer Products

USDA CERTIFIED BIOBASED PRODUCT
93% - 100%

Household Cleaners
Recycled Paper Products
Personal Care Products
Baby Care Products
“In our every deliberation we must consider the impact of our decisions on the next seven generations.”

-- from the Great Law of the Iroquois Confederacy
Nurturing Nature

We care today for the next seven generations of tomorrows.

Our principles:
- Choose plants not petroleum
- Source sustainably
- Decrease carbon footprint
- Produce zero waste

Transforming Commerce

We champion honesty, responsibility, and radical transparency in commerce.

Our principles:
- Be radically transparent
- Exert influence beyond our size

Enhancing Health

We enhance health through education, activism, and innovation.

Our principle:
- Create healthy products for healthy homes

Building Communities

We advance social justice and equality to unleash human potential.

Our principles:
- Create a vibrant workplace
- Nurture thriving communities
Obstacles to Safer Consumer Products

- Science inadequate to assess chemical risks to health
- Legislation inadequate to manage chemical risks to health
- Corporations, legislators, and regulators unwilling to place chemical risks to health before risks to commerce
Opportunities for Safer Consumer Products

- **Advance Science**
  - Rapid screening for metabolic activity
  - Improved risk modeling
  - Green Chemistry

- **Evolve Legislation**
  - Grassroots organization
  - Legislative education

- **Transform Commerce**
  - Internalize costs
  - B-Corporations
1,4-Dioxane in Household Products

- By-product of alkyl ether sulfate (AES) surfactant manufacturing
- AES are used in many home and personal care products
  - Laundry detergents
  - Dish detergents
  - Shampoos
- Probable human carcinogen
1,4-Dioxane in Household Products

• 2002 – Industry average approximately 50 ppm 1,4-dioxane in AES
• 2002 – Seventh Generation specifies 5 ppm maximum 1,4-dioxane in AES
• Two vendors willing to meet SG specification
• 2008 – Organic Consumer Association Analyzes consumer products for 1,4-dioxane

<table>
<thead>
<tr>
<th>Product</th>
<th>ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle of Friends No Tearski Shampoo</td>
<td>2.1</td>
</tr>
<tr>
<td>Citrus Magic 100% Natural Dish Liquid</td>
<td>97.1</td>
</tr>
<tr>
<td>Dr. Hauschka Body Wash Fresh</td>
<td>ND</td>
</tr>
<tr>
<td>Earth Friendly Products Ultra Dishmate</td>
<td>19.0</td>
</tr>
<tr>
<td>Earth Friendly Products Ultra Dishmate (Natural Almond)</td>
<td>13.6</td>
</tr>
<tr>
<td>Jason Apricot Satin Soap</td>
<td>9.2</td>
</tr>
<tr>
<td>Jason Fragrance Free Satin Soap</td>
<td>11.9</td>
</tr>
<tr>
<td>Jason Tea Tree Scalp Normalizing Shampoo</td>
<td>7.9</td>
</tr>
<tr>
<td>Kiss My Face Early to Bed Shower Gel &amp; Foaming Bath</td>
<td>6.2</td>
</tr>
<tr>
<td>Method Creamy Hand Wash</td>
<td>7.0</td>
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<tr>
<td>Method Dish Naturally Derived Ultra Concentrate</td>
<td>27.5</td>
</tr>
<tr>
<td>Method Hand Wash</td>
<td>ND</td>
</tr>
<tr>
<td>Nature's Gate Awapuhi Volumizing Shampoo</td>
<td>3.5</td>
</tr>
<tr>
<td>Nature's Gate Baby Soothing Shampoo</td>
<td>1.6</td>
</tr>
<tr>
<td>Sea-Chi Organics Tasmanian Lavender Shampoo</td>
<td>7.5</td>
</tr>
<tr>
<td>Seventh Generation Lemongrass &amp; Clementine Zest Natural Dish Liquid</td>
<td>1.5</td>
</tr>
<tr>
<td>Seventh Generation Natural Dish Liquid</td>
<td>1.9</td>
</tr>
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1,4-Dioxane in Household Products

- Consumers did not take the news of 1,4-dioxane in their household products well
1,4-Dioxane in Household Products

- 2008 – SG eliminates 1,4-dioxane from all SG products
- 2010 – J&J and P&G agree to reformulate certain personal care products to less than 10 ppm 1,4-dioxane by 2015
- 2012 – P&G agrees to reformulate Tide to less than 35 ppm 1,4-dioxane