Overview of GC3 Project Group Activities
Facilitating Chemical Data Flow Along Supply Chains

Monica Becker
Monica Becker & Associates Sustainability Consultants
GC3 Chemical Data Project Group History

2007  Tools for chemical assessment

2008  Report on Restricted Substances Lists (RSL)

Documents available at:  http://www.greenchemistryandcommerce.org/publications.php
GC3 Chemical Data Project Group History

2009 - Present

**Focus:** Facilitating the flow of chemical data along supply chains (B-2-B)

**Types of Chemical data**
1. Chemical identification
2. Chemical function/use
3. Human/Ecological hazard
4. Exposure potential

**Data needed for:**
- Regulatory compliance
- Responding to customer requests
- Alternatives Assessment
- Green product design
- Green product certification
- Chemical transparency/disclosure initiatives
GC3 Chemical Data Project Group History

2009  In-depth case studies of Nike, HP and SC Johnson to illustrate challenges & best practices:

- Gathering chemical data from supply chains
- Use of chemical data to develop safer products

Documents available at: http://www.greenchemistryandcommerce.org/publications.php
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers
Project Year 2011/2012

GC3 Chemical Data Standardization Project
Barrier to Chemical Data Flow: Lack of Standardization in Data Transfer

Current methods for data requests:

- There are almost as many different types of forms as there are customers needing data
- Works against efforts to communicate chemical data in supply chains

*Adapted from Mark Frimann, TI*
Solution: Standardization

Data can reside in ANY format

Supplier (Sender) --> Standardized Dataset - Format --> Customer (Requestor)

Data can reside in ANY format

*Adapted from Mark Frimann, TI*
Potential benefits of standardization

• Increased data availability
• Reduced cost of data gathering/communication
• Improved quality of data
GC3 Data Standardization Project Objective:

To evaluate the feasibility & benefits of standardizing chemical data types & formats in supply chains
Approach Taken:

• Engage in dialogue with companies in an actual supply chain

• Chose the Electronics Sector
  – Significant experience with chemical data reporting in supply chains for RoHS, WEEE, REACH, etc.
  – Existing standard/data exchange protocol – IPC 1752 (U.S.)
  – New, improved international standard/data exchange protocol IEC 62474
Electronics Supply Chain Pilot

Suppliers → Texas Instruments → Seagate → HP → Staples

Pilot Team Members

Mark Frimann, Texas Instruments
Brian Martin & Bill Haas, Seagate
Lyndsey Ridgeway, HP
Roger McFadden, Staples
### Chemical Data “Superset” Modules - Universe of Data that Will Satisfy the Needs of the Companies in Our Supply Chain

#### 1. Requestor (Customer) Information
- Company Unique ID (DUNS or equivalent)
- Company Name
- Company Address
- Contact Name
- Contact Title
- Contact Email
- Contact Phone Number
- Division Name
- Business Unit

#### 2. Supplier (Sender) Information
- Company Unique ID (DUNS or equivalent)
- Company Name
- Company Address
- Contact Name
- Contact Title
- Contact Email
- Contact Phone Number
- Division Name
- Business Unit

#### 3. General Component Information
- Request Date
- Need Date
- Requestor Component Name
- Response Date
- Supplier Component Name
- Component Build Site
- Component Mass
- Unit of Measure (mg, gram)
- Unit Type (each)

#### 4. Component Compliance Declarations
- Component/Device Status - REACH
- Component/Device REACH Availability Date
- Component/Product Status - RoHS
- EU RoHS Exemption (if applies)
- Component/Product RoHS Availability Date

#### 5. Chemical Substance Information
- CAS Number or Other Unique Chemical ID No.
- Substance Name
- Amount in Component (mg, grams or kg)
- Substance Concentration in component – ppm and/or %
- Description of Chemical Use
- Function of Chemical

#### 6. Substance & Material Group Information*
- EU RoHS Substance Category
- From IPC 1752 Class B (when updated from IEC 62474)
  - Material Class ID (Number)
  - Material Class (Name)
- IPC 1752 Class C
  - JIG 101 threshold for substance [taken from JIG]
  - Below threshold?
- REACH
  - Substance on ECHA Substance List? (released and proposed Candidate List)
- JAMP**
  - Material Name
  - Material Group ID
  - Material Group
  - Use Category

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Staples is seeking additional information
Key Lessons Learned Include:

1. See strong benefit to standardizing. Standard is first step, then need software to enable automated data exchange - key for large companies with thousands of complex products. Third party software providers are jumping in to develop software.

2. Even with standard and software, still not easy for large companies to change over their IT systems to accommodate a new approach – time, cost, and organizational inertia.

3. Not interested in third party systems that “hold” their data. They don’t trust them.

4. Great value in talking within the supply chain about data needs, why things done the way they are, obstacles to change; etc. Dialogue has influenced data program design at some pilot companies.
Some Ideas for Continuing the work in 2012-2013
Idea:

Evaluating Tools for Data Exchange to Support Joint Roadmap Initiative in Apparel & Footwear Industry

NIKE, Inc. Commitment
NIKE, Inc. (Nike) has long been committed to a more sustainable supply chain. This commitment is reflected in the company's efforts to decouple environmental impacts from process changes, promoting renewable energy consumption and reducing environmental footprints.

This roadmap outlines specific actions to achieve the goal of zero discharge of hazardous chemicals. These actions are in addition to those outlined in the 2010 Nike Roadmap toward Zero Discharge of Hazardous Chemicals (Joint Roadmap).

We recognize collaboration and the need to share experiences to achieve common goals. Nike is committed to work with brands, suppliers, and other stakeholders to make progress towards zero discharge of hazardous chemicals.

Idea:

Project addressing confidential business information (CBI) as an obstacle to B-2-B chemical data communication