GC3 Chemical Data Working Group

Advancing Green Chemistry Practices in Business:
6th Annual Green Chemistry & Commerce Council Innovators Roundtable
HP Executive Briefing Center
Cupertino, CA
May 4 & 5, 2011

Presented by:
Monica Becker, Principal
Monica Becker & Associates Sustainability Consultants
GC3 Chemical Data Working Group History
(Former Working Group Name - Tools for Chemical Assessment and Safer Design)

2007  Report on tools for chemical assessment

2008  Report on Restricted Substances Lists (RSL)

2009  In-depth case studies of Nike, HP and SC Johnson on:
      ▪ Gathering chemical data from supply chains
      ▪ Use of chemical data to develop safer products

2010  Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

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

Motivations for developing the Guidance Document

B-2-B communication of chemical data along supply chains is critically important for:

• regulatory compliance
• safer product design
• green certification programs
• chemical disclosure initiatives, etc.

To be successful, product manufacturers and retailers need the active engagement of suppliers to provide relevant chemical information.
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

Motivations for developing the Guidance Document (cont.)

Many product manufacturers and retailers are spending significant resources to get the data, including educating their suppliers on:

- What constitutes “chemical data”
- Why companies need chemical data
- What benefits accrue to suppliers who provide data
- Where and how to get chemical data
- How to address CBI
- Why MSDS’ aren’t adequate
- How companies use chemical data to make safer products
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

Categories of Chemical Data Addressed

1. **Chemical identification:** Chemical name, trade name, and CAS number of chemical ingredients in an article or chemical mixture, which may include intentionally added chemicals and impurities.

2. **Chemical function:** Function of a chemical ingredient in an article or chemical mixture (e.g. preservative, anti-oxidant, fragrance).

3. **Human/Ecological hazard:** Human health and ecotoxicological characteristics of chemical ingredients and chemicals used in making that ingredient, as well as their physical safety properties such as flammability.

4. **Exposure potential:** Potential for human or environmental exposure to chemical ingredients in an article or chemical mixture.
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

Table of Contents

Section 1: Why do fabricators and formulators need chemical data?

Section 2: What are “chemical data”?

Section 3: How can suppliers benefit from collecting and providing chemical data to their customers?

Section 4: Why isn’t a Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) enough?

Section 5: How do companies address confidential business information?

Section 6: How are fabricators and formulators gathering chemical data from their supply chains?

Section 7: Where and how do suppliers get chemical data to provide to their customers?

Section 8: How fabricators and formulators use chemical data to make safer products

Section 9: Conclusions and future directions
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

**Resources in Appendices:**

- Examples of company data collection practices
- Key regulations that require chemical data collection
- Industry sector initiatives to standardize and streamline data collection
- Software for collecting and reporting chemical data to customers
- Information sources for chemical hazard and toxicity data
- Sources of information on safer chemicals
- Systems for evaluating the safety and design of chemicals, chemical products, and processes
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

APPENDIX C-1
Sample Customizable Letter to Suppliers Requesting Chemical Information

Date

Name
Company
Address

Dear :

I am writing to request information on the following chemicals/materials/components/products that you are supplying to us/we are interested in purchasing from you:

Product 1
Product 2

This information is needed by [Company] (choose one or more of the following):

- to help us comply with regulations that restrict the use of certain chemicals in our products
- to help us comply with regulations that require disclosure of chemical content in our products
- to support our company’s program that restricts the use of certain chemicals in our products
- to evaluate environmental, health and safety characteristics of chemicals prior to selection for use in our products
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

APPENDIX C-2
Sample Customizable Material Information Form

---

Chemical composition information—fill in information below

Please copy and complete the table for each product that we are requesting information on. Targets weights plus impurities should total to 100%

List all intentionally-added constituents in part 1 of the table below and impurities in part 2

| Constituent name (INCI or equivalent) | CAS number/EINECS or ELINCS/EC No. | Weight (%) (minimum/maximum/target) | Constituent function in product

Part 1. Intentionally-added constituents—if supplied material is the product of chemical synthesis, list feedstock materials and solvents

| Constituent name | CAS number/EINECS or ELINCS/EC No./C.I. | Weight % (minimum/maximum/target) | Constituent function in product

* Constituent function can be: raw material/feedstock, preservative/antioxidant, solvent, catalyst, coating, finishing chemical, fragrance, UV filter, or other categories.

Part 2. Impurities—list impurities regardless of amount, including residues, catalysts, reaction by-products, residual solvent carriers, unreacted raw materials (e.g., monomers).

| Constituent name | CAS number/EINECS or ELINCS/EC No./C.I. | Maximum level in weight %, ppm or ppb | Comments (including explanation of why impurity is in the product)

If composition is not completely listed, please indicate reason below

---
Meeting Customers’ Needs for Chemical Data: A guidance document for suppliers

“The GC3 Guidance provides some great advice, offers solid tools and case studies to drive the business case, and tools to effectively engage both upstream suppliers and downstream customers to green up the supply chain, support product stewardship, and make consumer products safer.”

Dave Meyer, April 28, 2011
Contributors to the Guidance Document

Cal Baier Anderson, Environmental Protection Agency
Pat Beattie, SciVera
Michael S. Brown, Brown & Wilmanns Environmental Consulting
Topher Buck, Green Blue Institute
Sharon Cooperstein, Green Seal
Mindy Costello, NSF International
Scott Echols, Nike
Eric Harrington, NSF International
Kathleen Hurley, Actio Corporation
Teresa McGrath, NSF International
Brian Martin, Seagate
Mary Ellen Mika, Steelcase
George Pavlovich, Bayer MaterialScience
Homer Swei, Johnson & Johnson
Gabe Wing, Herman Miller
Please:

• Read it
• Send it to your suppliers, vendors, purchasing agents, merchants, supply chain groups, etc.
• Give us your feedback
• Encourage those that you give it to to give us feedback
Thank You!

Monica Becker
Monica Becker & Associates Sustainability Consultants
www.monicabecker.com
585-748-9123