Chemical Inventory: Knowing Chemicals in Products & Supply Chains

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December 9, 2015
JFK Presidential Library and Museum, Boston, Massachusetts, USA
Global leader in the office furniture industry offering a comprehensive portfolio of workplace products, furnishings and services

Seating | Furniture | Storage | Tables | Technology | Worktools & Accessories
Product Hierarchy: Material Chemistry begins with Homogeneous Materials

Homogeneous material

Part and/or assembly

Product

Target Material(s):

- Product-specific
- Supplier-specific
- Strategic Materials

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Goal of Material Chemistry: **Chemical Data Set** for Homogeneous Materials

**Scope:**
- All constituents vs. COC
- Initial vs. Final
- Intentional
- Residual
- Impurities

**Identity:**
- CAS Registry Number(s)
- Chemical Class
- Functional Class
- Concern Rating

**Amount:**
- Concentration, % w/w
- Range
- Threshold
- Presence / Absence

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Drivers

- Regulations
- Certifications
- Internal Mandates
- Marketing Claims
- Customer Requests
- Bid Proposals
- Emerging Issues

Prioritization of Chemicals

- "List of Lists"
- Reportable Substances List(s)
- Priority Chemicals- and Materials-of-Concern

As a whole, set framework for prioritizing chemicals of concern

One or more, set goals and strategy for material selection, data set requirements and data gathering approach

Target Material(s)

Chemical Data Set(s)

Data Gathering

Informs scope of chemicals to be identified

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Data Gathering, Assessment and Verification

What

- Engineering drawings & specifications
- Safety Data Sheets
- Technical Data Sheets
- Mill certificates
- Disclosures*
  - Full Material Disclosures
  - List-based Disclosures
- Declarations*
  - Chemical-specific declarations
  - Category-based declarations
- Certifications
- Analytical Testing
  - XRF
  - Indoor Air Quality
  - Other
- Material databases & literature
- Subject Matter Expertise

*With or without non-disclosure agreements (NDA)

* NDAs may be 2-way or multi-party
Data Gathering, Assessment and Verification

Who

- Internal teams
- Supply Chain
  - Tier 1
  - Multiple Tiers
- Third-parties
  - Certifiers
  - Assessors
  - Other Services

When

- Materials Innovation & Exploration
- New Product Development
- Life Cycle Management
Rolling up to the Product-Level

Slides are for illustrative purposes only
Thank you.

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