

Enabling innovation in automotive supply chain products through a common chemical assessment and management strategy

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Suppliers Partnership for the Environment



Suppliers Partnership Overview

- 2002---Formation of the Suppliers Partnership for the Environment (SP)
 - Bring auto manufacturers (OEMs) and suppliers together, in partnership with the US EPA to focus on environmental opportunities
- 2007---SP launches the development of a Material Health and Environmental Risk Assessment Strategy (MAS)
 - Goal - to develop a common screening process for assessing and prioritizing potential health and environmental impacts of chemicals in parts

SP MAS Development Team



HONDA

CHRYSLER



Chemico  **Mays**



SUBARU

Johnson
Controls



 **Quaker**

Unmet Need

Companies have a growing need to make proactive decisions about the materials in their products based on better chemical assessment information.

Key Requirements

- (1) Address chemicals in vehicle materials
- (2) Reliable, understandable and actionable output
- (3) Cost-effective
- (4) Solid science using accepted methodologies
- (5) Protect proprietary business information

Drivers of the Need

Regulations

UNEP/CEPA/REACH/
RoHS/TSCA/States

Stakeholders

Advocacy groups, investor
groups, etc.

Globalization

Distributed supplier networks
Complex ingredient info

Customers

Concerns about chemicals in
products

Competition

Stewardship, innovation,
“green” product lines

- New pressures toward chemical risk assessment
- Ongoing trends that underscore business risk
- Urgent need for robust chemical tracking
- Clearer metrics and communication
- Unified framework for efficiency of review

Importance of MAS to GM

It is all about improving Product Stewardship and Sustainability of our vehicles, increasing customer satisfaction.

If the MAS process and SciVera Lens™ is expanded to all of our suppliers, it will:

- Level the playing field thru-out the supply base
- Allow for a more proactive and comprehensive assessment of chemicals
- Provide much more valuable assessment information to supplement basic lists of constituent chemicals

Current Chemical Assessment Options

Existing manual and automated services do not meet needs for affordability, scalability or flexibility.

MANUAL - In-house Staff or Consultants

- Skilled labor-intensive
- Inconsistent
- Expensive
- Inefficient

SOFTWARE - Compliance-based Applications

- List-driven
- Compliance derived
- Less-flexible
- Hazard-based (not in context of use)
- Worker safety orientation (vs. consumer orientation)

Current Status

- MAS Program Guidelines complete
 - Hazard & Dose Response Assessment Guidelines
 - Exposure Assessment Guidelines
 - Risk Assessment Guidelines
 - Business Process Management Guidelines
- Separate effort underway to automate process
 - Subset of companies working with Science Strategies, LLC & SciVera, Inc.
 - Piloting and optimization
- Implementation
 - Voluntary - company-specific approach
- www.supplierspartnership.org

Risk Assessment Automation

Automated product chemical risk assessment changes the landscape of how and when companies can review product chemical toxicology for prioritizing action.

Key Functions

- Web-based, cost-effective, actionable review of product ingredients
- Scaled access to expert judgment on chemical data
- Automated risk assessment prioritizes product action

The screenshot displays the SciVera Lens web application dashboard. The interface includes a navigation bar with 'ADD', 'CONNECT', and 'COLLABORATE' buttons, and a search bar. The main content area is divided into several sections:

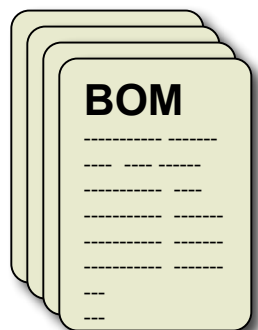
- PRODUCT LENS:** A table listing products with columns for 'F', 'R', 'H', and 'Item'. Products include StarClean Super, Everee Concentrate, Surface King Mega, Surface King Green, GoKleen Clear (highlighted), BetterShine Xtra, ZBlue Concentrate, Strongest Jumbo, WhoaNelly! Cleaner, AlwaysOn Scrub, BestBright HSC, MaximumPower, and DoubleTrouble X3.
- TASKS (14 tasks):** A table with columns for 'Status', 'Subject', 'Sender', and 'Date'. Tasks include 'Components Added - All set. We look forward to feedback.', 'Supplier Needs Info - Can you help? See below.', 'Assessment Sent - Await feedback from our supplier for rest.', 'Components Added - All components are entered. We look for...', and 'Substance Missing - Need your thoughts on how best to find.'.
- SUPPLIER LENS:** Two tables showing supplier information with columns for 'F', 'R', 'H', 'Item', and 'sort: Item'. Suppliers listed include EastPlus, 1WS-456-24X, J&B C, Inc, Sun Tech AG, 22-486-2C4, and 23-56-234.

The footer contains links for 'Terms of use', 'Privacy policy', and 'Contact', along with the SciVera logo and copyright information: 'Copyright © 2008 by SciVera, Inc. All rights reserved.'

SciVera Lens™ Information Flow

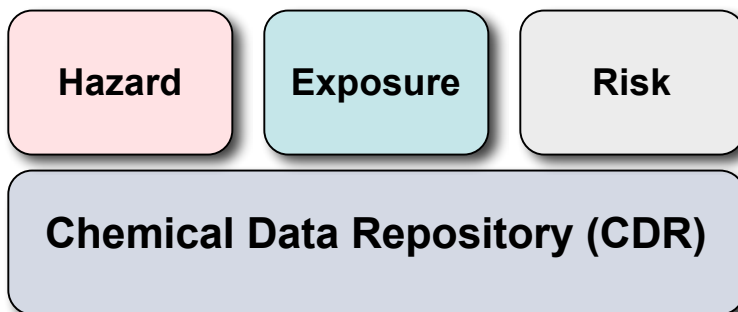
SciVera Lens™ processes an innovative combination of subscriber product data, aggregated chemical knowledge and assessment algorithms.

Subscriber Product Data



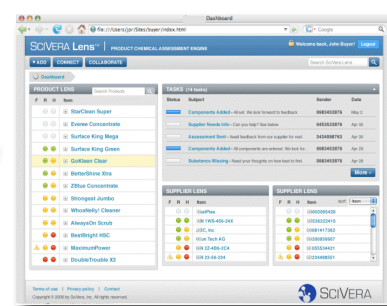
- Secure FTP import
- Supplier connectivity
- Proprietary info protection

SciVera Lens™ Data Integration and Algorithm Processing



- Product ingredients matched w/CDR data
- Risk assessment processed via SciVera exposure scenarios
- Unique and valuable product insight

SciVera Lens™ Dashboard



- Hazard score
- Risk score
- Supplier/Product Map
- “What if” planning

Importance of MAS Program to Lear

- **INNOVATION** -- We are interested in innovative ways to identify opportunity to improve the health, safety and ecological impact of our products.
- **INFORMATION PROTECTION** -- The MAS process and SciVera tool provides a means to engage our supply base more effectively in an assessment of chemicals in a format that is revealing yet protects formulation propriety.
- **COLLABORATION** -- The process creates an improved environment for collaborative efforts to minimize or eliminate potential hazards and contribute to market-driven competitive momentum toward environmentally friendly material implementation.

Summary & Proposal

- (1) Sector approach to Sound Management of Chemicals is possible and critical
- (2) North American auto industry is well-positioned for innovation in chemicals management
- (3) Work can build on existing achievement (SP MAS)
- (4) Support from CEC is critical to broad implementation of MAS



Thank you

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