### 5 Things You Can Do to Select Safer Chemicals for Your Company's Product Formulations

Co-Sponsored With

INTERSTATE CHEMICALS

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# What is the GC3?

The Green Chemistry & Commerce Council (GC3) is a multi-stakeholder collaborative that drives the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



# **Our Vision and Mission**

**Vision:** A world where green chemistry is standard practice throughout the value chain.

**Mission:** To drive the commercial adoption of green chemistry by catalyzing and guiding action across all industries, sectors and supply chains.



## More than 130 Members Across Sectors and the Value Chain



Interstate Chemicals Clearinghouse (IC2)

The IC2 is an association of state and local governments that promotes a clean environment, healthy communities, and a vital economy through the development and use of safer chemicals and products.

http://theic2.org



# IC2 Goals

- Avoid duplication and enhance efficiency and effectiveness of agency initiatives on chemicals through collaboration and coordination
- Build governmental capacity to identify and promote safer chemicals and products
- Ensure that agencies, businesses, and the public have ready access to high-quality and authoritative chemicals data, information, and assessment methods







#### **State Chemicals Policy**

The State Chemicals Policy Database is a searchable database of passed and pending state-level chemicals legislation. Users can search the ... Read more



#### **States' Chemicals of Concern**

Various IC2 members have developed and published lists of chemicals of concern as part of their efforts to implement new state ... Read more



#### **Chemical Hazard Assessments**

The Chemical Hazard Assessment Database enables users to search for GreenScreen® and Quick Chemical Assessment Tool (QCAT) assessments. The purpose ... Read more

# **Ground Rules**

- Due to the number of participants in the webinar, all lines will be muted
- If you have a question or comment, please type it in the "Questions" box located in the control panel
- Questions will be answered at the end of the presentation



# **Today's Speaker**



#### **Joe Rinkevich**

President Scivera



Green Chemistry & Commerce Council (GC3) Webinar Series

5 Things You Can Do to Select Safer Chemicals for Your Company's Product Formulations

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GREEN CHEMISTRY & COMMERCE COUNCIL



## Topics

Chemical screening is changing
5 Things
Q&A + Discussion

GOAL: Understand through examples ways you can identify and select safer chemicals for your products and processes.



Chemical and formulation decisions occur upstream, while brands and retailers incur quality and reputational costs downstream.



Chemicals management for consumer products has shifted dramatically.

Increased expectations from diverse stakeholders drives this change.

All retailers, brands, and their supplier networks need to update critical business processes in response.

Global brands and their suppliers need scalable, reliable, and cost-effective solutions to meet these new requirements.



## 20-year process transformation

M/RSL

Screening

Basic chemical compliance Risk-based Certification Qualitative hazard assessment Quantitative chemical screening and scoring



#### Problem: Conventional responses not working

Finished product testing is too late
Brands incur too much risk
Chemicals decisions occur upstream



Chemical Suppliers Raw Material Suppliers

Product Manufacturers

Brands Retailers

Consumers





### Solution: Upstream Chemicals Management

Clearly communicate expectations to suppliers
Enable preferred chemicals selection <u>upstream</u>
Save money and reduce risk
Protect supplier IP and meet new requirements





- ✓ Select safer alternatives
- Protect ingredient IP

- Reduce risk
- ✓ Score products
- Encourage achievement

Knowledge Confidence



### 5 Things You Can Do to Select Safer Chemicals for Your Company's Product Formulations



### **5 Things for Safer Chemicals Selection**

 Understand the different types of chemical screening
Full formulation + impurities
List screen
Comprehensive hazard assessment
Scoring (Qualitative + Quantitative)



## Different screens, different goals

M/RSL

Screening

Basic chemical compliance Risk-based Certification Qualitative hazard assessment Quantitative chemical screening and scoring



# Full formulation + impurities

All intentional ingredients
Impurities [ ≥100 ppm]
Protect supplier confidential information



# Lists as first step (but not the last) **Case Study: California Prop 65 List** ~600 Chemicals listed on Prop 65 as "Known to cause Cancer" >6,000 Chemicals assessed as carcinogens by Scivera Toxicologists >40,000 Chemicals in SciveraLENS Rapid Screen show evidence of high hazard for carcinogenicity



# **Comprehensive Hazard Assessment**

- 1. 23 Human and environmental health endpoints
- 2. Regulatory Lists + Authoritative Data
- 3. Experimental data
- 4. Modeled data + analogous data
- 5. Based on accepted frameworks: GHS, US EPA, ECHA, etc.



# Qualitative screening categorization

**Case Study: Solvent Alternatives [US EPA CP-CAT]** 



CONCERN OK GOOD

# "I just need a number."

## Quantitative chemical screening

 Complement qualitative frameworks
Result in a numeric score
Enable easier comparative review of chemicals and formulations



## Quantitative screening examples

Screened Chemistry
NIKE Priority Chemistry
Scivera Quantitative Chemistry Index



## Quantitative scoring categorization

**Case Study: Solvent Alternatives [US EPA CP-CAT]** 



CONCERN

OK

GOOD

## Summary

 Explore the 5 Things
Safer alternatives require deep assessment
Join us at the Alternatives Assessment Symposium next week in Sacramento





#### 2<sup>nd</sup> International Symposium on Alternatives Assessment: Building the Field

California Environmental Protection Agency (CalEPA) Sacramento, California | November 1-2, 2018



# **Question & Answer**

Please enter questions or comments in the "Questions" box located in the control panel.





14<sup>th</sup> Annual GC3 Innovators Roundtable May 7-9, 2019 | Cincinnati, OH

Sponsorship opportunities available!

For more information, please visit www.greenchemistryandcommerce.org



# Thank you for joining us!

For more information about the GC3: www.greenchemistryandcommerce.org

