

How Top Companies are Using GreenScreen

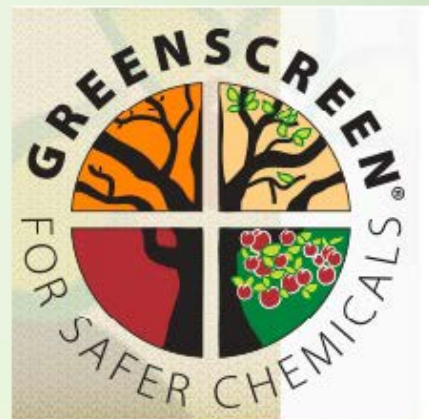


Valspar, Roxul, GOJO

Webinar 2 - February 28, 2017



Clean Production Action



Together, we're creating a safer
and healthier future

and healthier future
together, we're creating a safer



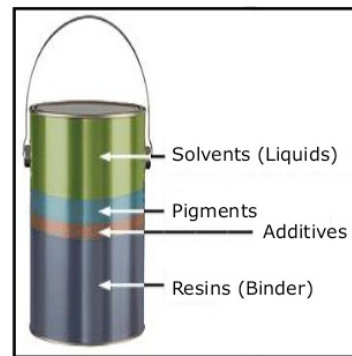
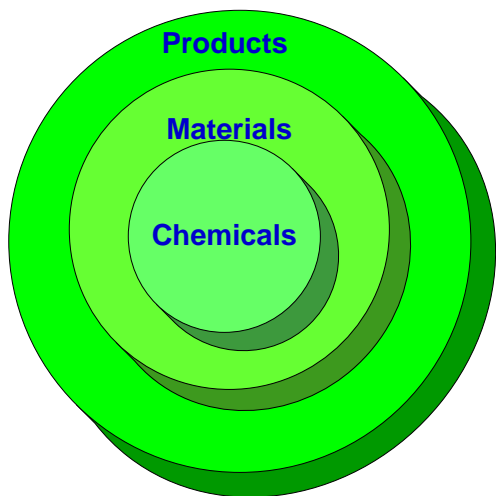
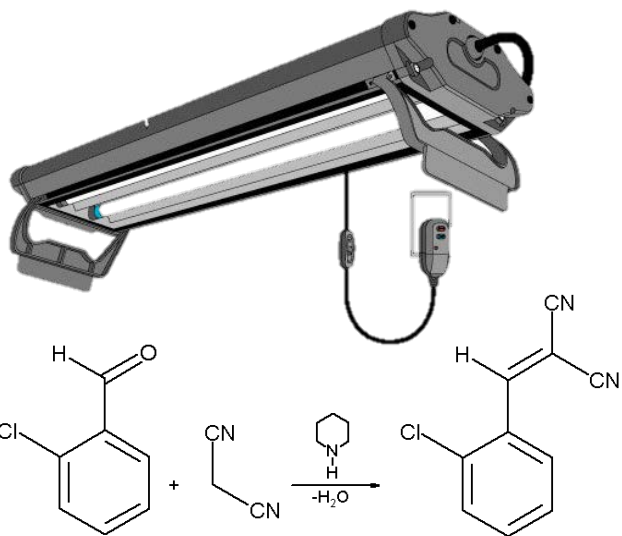
Webinar Objectives & Agenda

- Hear directly from leading businesses that use GreenScreen for Safer Chemicals about the value of GreenScreen to their business.
- Become familiar with GreenScreen training courses available to you, and the value of the training courses to attendees.
 1. Introduction to GreenScreen
 2. Industry Speakers
 - » Antonio Quinones-Rivera, GOJO
 - » Doug Eichler, Roxul
 - » Teresa McGrath, Valspar
 3. GreenScreen Training Offerings
 4. Questions & Answers



The Big Picture: Chemicals

- Chemicals are building blocks
- Chemical selection
 1. Direct
 2. Indirect





Why Consider Chemical Hazard when Choosing Chemicals?



Avoid business risks

- Regulatory
- Financial
- Reputational

Save money



Example: Business Risk



GOING DOWN IN FLAMES LUMBER LIQUIDATORS STOCK PRICE

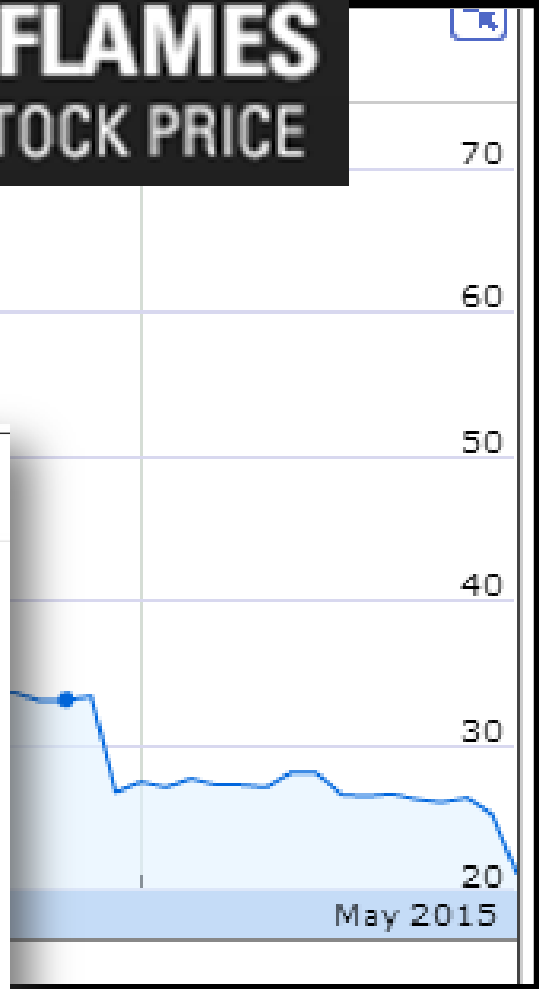


BUSINESS DAY

Lumber Liquidators Chief Robert Lynch Resigns

By RACHEL ABRAMS MAY 21, 2015

A Lumber Liquidators store in Philadelphia. The company is battling accusations that it sold laminate flooring, manufactured in China, with unacceptably high levels of formaldehyde. Matt Slocum/Associated Press





Chemical Hazard is Complex

1. How toxic?



-  **SOME** Concern for adverse effects
-  **MINIMAL** Concern for adverse effects
-  **NEGLIGIBLE** Concern for adverse effects



2. To humans? In what way(s)?



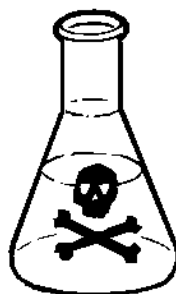
3. To the environment?





Value of Hazard First Approach

Risk is a function of hazard and exposure



Reduce Risk by Reducing Hazard as a Priority

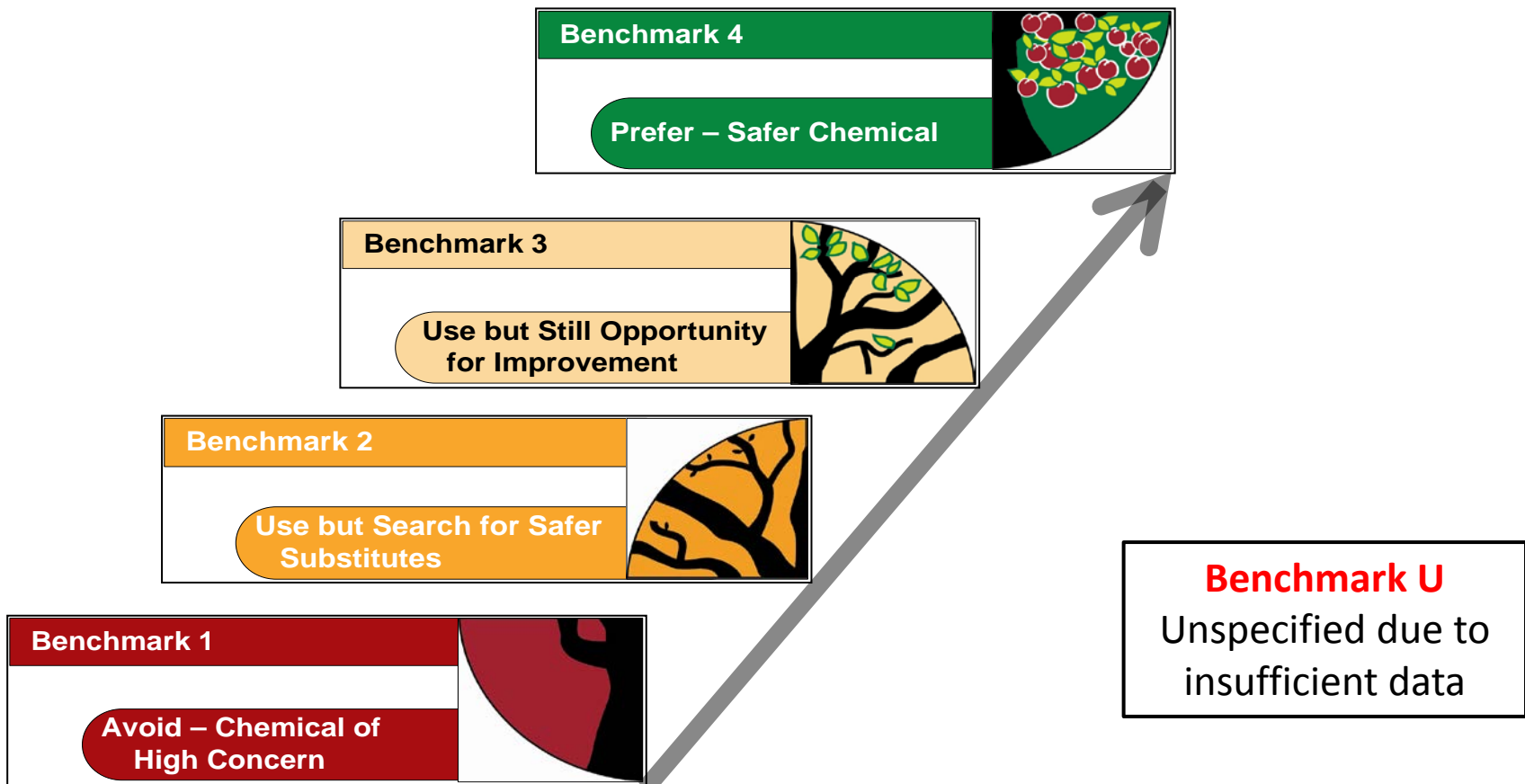
Hazard Assessment answers the question:
Which chemical is inherently safer/lower hazard?



Our Solution

GreenScreen: Simple Score

GreenScreen provides a simple and consistent way to talk about chemical hazard.





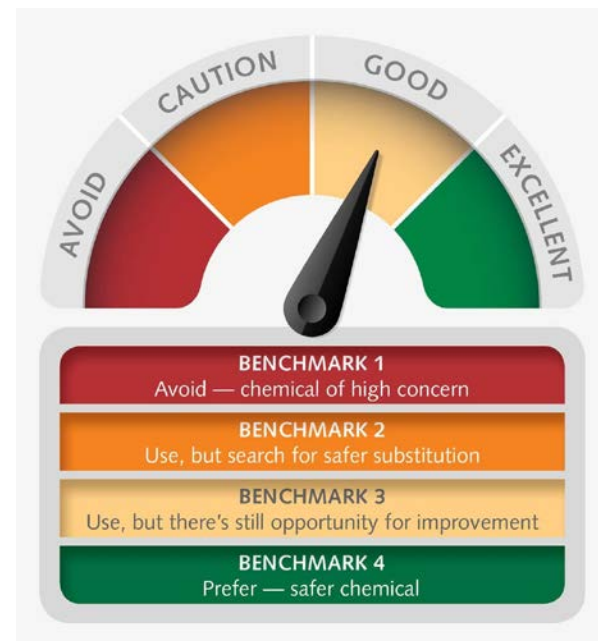
GreenScreen Tools for Chemical Hazard Assessment

1. [GreenScreen List Translator](#)

- Identifies many problematic chemicals
- Review of lists only
- Minimal time and expertise
- Automated databases available

2. [GreenScreen for Safer Chemicals](#)

- Identifies all problematic chemicals and safer alternatives
- Review of all data and information
- High level of time and expertise required to assess





Why GreenScreen?

- Simplifies complex information.
- Charts a path for assessing and decision making with respect to substituting safer chemicals and mitigating risk.
- Builds confidence and collaboration in the supply chain.



Using GreenScreen at GOJO

Antonio Quiñones-Rivera, Ph.D.
Product Safety and Sustainability Manager



GOJO Industries – Akron, Ohio



Purpose-driven

Family-owned

Private Company

About GOJO

- Headquartered in Akron, Ohio, GOJO is a 70 year-old, purpose- driven, private, family business. Our stakeholders include large public customers such as major retailers and away-from-home settings such as hospitals, schools, hotels and government agencies.
- Our Purpose, "Saving Lives and Making Life Better Through Well-Being Solutions," drives our commitment to sustainability and sustainable chemistry.
- The invention of PURELL Hand Sanitizer was a turning point for GOJO and for hand hygiene. GOJO launched PURELL Hand Sanitizer as a consumer product in the late 1990s. Hand hygiene was suddenly within reach wherever people happened to be. PURELL Hand Sanitizer soon became a household name.
- Our products include Dispensing Systems, Handwashes, Hand Sanitizers, Hand Sanitizing Wipes and Surface Sprays

Antonio Quinones-Rivera

- Product Safety and Sustainability Manager within Regulatory Affairs and Clinical Sciences Department
- Joined GOJO in January 2014
- Lead the Sustainable Chemistry Implementation team

GOJO – Drivers for GreenScreen

- The public is increasingly concerned with, and aware of, the human and environmental hazards and ecological impacts of some ingredients used in personal care products and cosmetics
- This has led to demands by consumers for increased transparency regarding the ingredients used to manufacture personal care products and cosmetics and increased understanding as to what manufacturers are doing to reduce and eliminate the use of what have become known as “Chemicals of Concern”
- GOJO uses an approach that evaluates chemical hazards early in the scoping of new ingredients
- Applying a GreenScreen Hazard Assessment approach facilitates communications internally and with our suppliers as we seek to continually improve the safety profile of our products
- We also apply a hazard assessment approach as we evaluate current ingredients and their possible replacements

How GOJO Selected GreenScreen

- The attributes of the GreenScreen method that are most important to GOJO include:
 - Scalable approach – we could conduct a relatively quick screening assessment of a chemical and devote additional time only on ingredients that were of interest to us
 - Relatively simple composite score – allows for ease of communication
 - Comprehensive list of hazards – it is important to GOJO to evaluate all relevant hazard endpoints
 - Transparent and recognized methodology

How GOJO Uses GreenScreen

- Using GreenScreen to evaluate new ingredients and compare their hazard profiles with that of current ingredients
- Integrating GreenScreen assessments into the raw material review process

Value of GreenScreen to GOJO

- Transparent communication tool – Useful for internal communication and alignment and for external communication with suppliers
- Broadly-used tool allows conversation to proceed using a common language
- Clear way to communicate our requirements and/or future direction to suppliers
- Evolving database (List Translator) that will be enriched within time

Value of GreenScreen Training

- The current structure of GreenScreen training brings together participants from a variety of industries
- The course structure encourages real-time interaction with students with different professional backgrounds
- Completing the course introduced us to a growing community of GreenScreen Assessors
- Fellow GreenScreen Assessors are a resource to continue developing our hazard assessment skills
- Completing the GreenScreen is evidence of commitment, both by the individual and the organization that supports him/her, to develop a better understanding of the hazards of chemicals used to manufacture products



ROXUL Inc. use of GreenScreen®

Doug Eichler, P.Eng (ON)
Project Portfolio Manager

About ROXUL Inc.

- ROXUL Inc. is the North American operations of ROCKWOOL International.
- The ROCKWOOL Group is the world leader in stone wool solutions, with over 10,000 employees in 37 countries.
- The Group produces insulation for buildings, industry and marine applications
- The Group also produces stone wool based systems for
 - acoustic ceilings and walls
 - high precision growing substrate
 - engineered fibers
 - noise & vibration control
- In North America ~30% of our products are sold thru Building Supply stores

My Role at ROXUL Inc.

■ Project Portfolio Manager

- Oversee the Technical Innovations Projects from an economic & technical advisor role

■ Types of Projects

■ Product Applications

- Building Science and weathering properties, fire rated assemblies, & acoustic rated assemblies

■ Product Certifications

- Material conformance to standards, codes, & low emissions

■ Product & Process development

- Changing product formulation for better compliance
- Reducing environmental footprint of operations
- More supply chain transparency

Drivers for GreenScreen®

- When designing around listed chemicals, there is a need to ensure regrettable substitutions are not made.
 - Typically the lists have a narrow focus on inclusion criteria
- Historically when making supply chain decisions the focus has been on avoiding listed items, i.e. Red List, REACH SVHC, etc.
 - We need a methodology to rank chemicals so it is easier for decision makers to evaluate the best currently available options
- We need a methodology to deal with data gaps and environmental transformation products when ranking alternatives
 - Lack of information does not make a chemical a better alternative

Why GreenScreen®

- Many of the material transparency certifications and standards look for either a GreenScreen® Benchmark score or a GreenScreen List Translator score.
- After attending a webinar last year, I decided it was important to get a better understanding of how to conduct a GreenScreen® assessment.
- GreenScreen® considers multiple hazards and provides an assessment system based on those hazards. The assessment takes into account the available scientific data or lack thereof. It also considers environmental transformation products in the hazard assessment.

Value of GreenScreen®

- GreenScreen® Benchmark scores are being used by various databases and rating systems that we use. It is important to us to understand how the scores are determined.
- GreenScreen® and GreenScreen® List Translator™ consider multiple lists and identifies the more authoritative lists for use in evaluations.
- It is important to us to evaluate chemical hazards early in the development phase to choose better alternatives.
- Ingredient hazard is a basic building block to understanding product risk.

Value of GreenScreen® Training

- Gives people not formally trained in toxicology a good understanding of the different hazards classifications and how they are evaluated.
- Provides a systematic way to rank chemicals so better alternatives can be chosen.
- GreenScreen® includes most of the globally available lists and ranks their authoritative significance
- A GreenScreen® assessment gives a much better understanding of the risks than a GreenScreen® List Translator assessment.

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Teresa McGrath

Environmental Regulatory Toxicologist,

The Valspar Corporation



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THE VALSAR CORPORATION

Founded in 1806

Headquartered in Minneapolis, MN

> 50 US locations and in 25 countries worldwide

Listed on the NYSE (VAL)

Corporate net sales > \$4.3B

Premium brands and strong distribution



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My Role at Valspar

Support Valspar Businesses Globally

Chemicals Management

ID, prioritize and drive the reduction of chemicals of concern

ID safer chemicals

Transparency

Develop policies for each business to respond to materials disclosure requests

Toxicology reviews

Hazard assessments, GreenScreens, alternatives assessments

Ecolabels

Develop policies and SOPs for responding to ecolabel requests

Sustainability at Valspar



Enhanced top-line growth

Brand value, innovation, customer relationship, talent recruiting/retention

Reduced Operational Costs

Energy, water, waste, compliance, health, labor, liability



Growth

+



Cost Savings

=

“Integrated Bottom Line”



Pathway to Product Stewardship Leadership



Compliance

- Data Integrity
- Systems
- Expertise
- Processes



Stewardship

- Strategic Planning
- Communication
- Advocacy



Sustainability

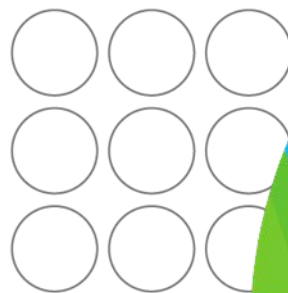
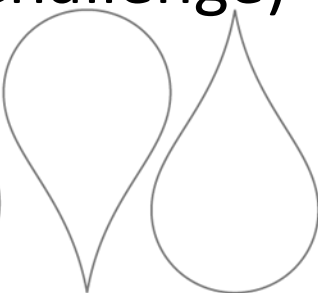
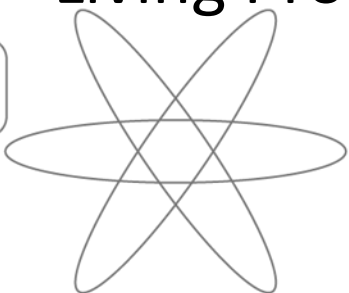
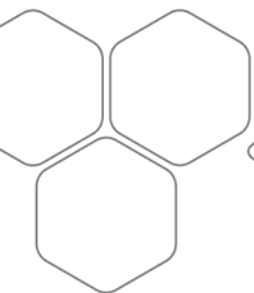
- Increased transparency
- Innovative, safer products
- Reduce life cycle impacts
- Improve product labelling, warnings
- Continuous improvement

Chemical Management Plan (CMP)

- Tier 1- chemicals prohibited from intentional use by Valspar
- Tier 2- chemicals that are in the process of being phased out
- Tier 3- Chemicals that we are either monitoring for safety/regulatory issues or have imposed risk management practices

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- Uses of List Translator
 - Prioritize chemicals for CMP
 - Review chemicals for customers (e.g. Health Product Declarations)
- Uses of GreenScreen
 - Assess new chemicals
 - Prepare alternatives assessments
 - Review chemicals for customers (e.g. Living Product Challenge)



Case Study: Dispersant for CCA Colorant

- Goal: to create a stable dispersing agent with good shelf-life, performance and low hazards.
- GreenScreen used to assess the potential hazards and determine alterations that may help improve the hazard profile.
- No data exists on the chemicals themselves, data on hydrolysis products, analogs and modeling tools were used.

Results

- **Target Chemical 2a** was assigned a Benchmark Score of 2 based on criteria 2c, high persistence coupled with moderate toxicity (C, R, D, E, ST-s, ST-r, N-s, IrE) and criteria 2e, moderate group I human toxicity (C, R, D and E).

Green Screen Hazard Ratings: Target Chemical 2a																			
Group I Human					Group II and II* Human								Ecotox		Fate		Physical		
C	M	R	D	E	AT	ST		N		SnS*	SnR*	IrS	IrE	AA	CA	P	B	Rx	F
						single	repeated	single	repeated										
M	I	M	M	M	I	M	M	M	I	I	DG	I	M	I	I	H	vI	I	I

- **Target Chemical 2b** was assigned a Benchmark Score of 2 based on criteria 2c, high persistence coupled with moderate toxicity (ST-s, ST-r, N-s, IrE) and criteria 2f, moderate group II human toxicity (IrE).

Green Screen Hazard Ratings: Target Chemical 2b																			
Group I Human					Group II and II* Human								Ecotox		Fate		Physical		
C	M	R	D	E	AT	ST		N		SnS*	SnR*	IrS	IrE	AA	CA	P	B	Rx	F
						single	repeated	single	repeated										
I	I	DG	I	DG	I	M	M	M	I	I	DG	I	vH	I	DG	H	vI	I	I

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- Drivers
 - Systematic
 - Comprehensive
 - Recognized by stakeholders
 - Customer requests
- Challenges:
 - Distinguishing chemicals
 - Filling data gaps
 - Polymers
 - Difficult to communicate to people new to GreenScreen



Value of GreenScreen Training

- To me:
 - Builds skills and understanding
 - Join a community of experts for support and advice
- To my organization:
 - Advertises internally and externally that Valspar has the expertise to help them achieve their goals
 - Saves development costs by eliminating choices early in the process

The background of the image is a vibrant, abstract composition of overlapping, semi-transparent circular shapes in various colors including magenta, red, purple, blue, and yellow. The Valspar logo is centered in the image, featuring the brand name in a white, lowercase, sans-serif font. Below the brand name is the tagline "if it matters, we're on it.®" in a smaller, white, lowercase, sans-serif font.

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if it matters, we're on it.®



Key Attributes of GreenScreen

- Transparent
- Comprehensive
- Scientifically robust
- Hazard-based
- Requires rigorous disclosure
- Developed by an NGO



Key Attributes of GreenScreen Results

- Offers standard approach for comparing chemicals based on intrinsic hazards
- Identifies hazardous chemicals AND safer alternatives
- Summarizes complex hazard information into straightforward Benchmarks that facilitate clear communication
- Provides information to avoid *regrettable substitutions*
- Provides information to avoid *unintended consequences*



Education & Training

- Clean Production Action provides a broad range of educational materials in the forms:
 - In-person trainings
 - Live web-based trainings
 - Online trainings
 - Webinars
- Trainings are designed to help you:
 - Reduce your chemical footprint
 - Understand transparency in your supply chain
 - Identify hazardous chemicals and safer alternatives



GreenScreen Training Offerings

<http://www.greenscreenchemicals.org/learn/training>

GreenScreen for Safer Chemicals	Delivery	Training Hrs	Cost
Introductory Webinars	Recording	1 each	FREE
Introductory Course	Online	6	\$599 ¹
Advanced Topics Course	Live web-based	14	\$3000
Authorized Practitioner Program	Live web-based	20+	\$6000

GreenScreen List Translator	Delivery	Training Hrs	Cost
Introductory Webinars	Recording or Live	1 each	FREE or \$19
Introductory Course	Live web-based	3	\$389
Introductory Workshop	In-person	6	\$ 79 ²
Advanced Course	Live web-based	3	\$425

1- This course is currently FREE to you for a limited time due to generous funding from California Department of Toxic Substances Control and a USEPA Pollution Prevention Grant.

2- This course is offered at a nominal fee and is sponsored by Washington State Department of Ecology and a Foundation grant.



Upcoming Trainings

1. [GreenScreen Advanced Topics Course](#)
 - Register NOW until March 15
 - Offered once per calendar year
 - 2017 Course starts April 17
 - Online Introductory Course as prerequisite
 - NEW “A la carte” offering by topic of interest
2. [Authorized GreenScreen Practitioner Program](#)
 - Apply NOW until March 15
 - Professional credentialing
 - Support your organization in reducing cost, increasing sales, and reducing risk
 - Several bullets above also apply
3. [GreenScreen List Translator Workshop](#)
 - March 15 in Seattle, WA
 - June 6 in Portland, OR



Question & Answer





Contact Us

Website: <http://www.greenscreenchemicals.org/>

GreenScreen Email: greenscreen@cleanproduction.org

Training Email: training@cleanproduction.org

Shari Franjevic

Education & Training Leader

Shari@cleanproduction.org

Thank You for Participating!

How Top Companies are Using GreenScreen



Webinar Series Recordings Available

Webinar 1 – Hewlett-Packard, Steelcase

Webinar 2 – Valspar, Roxul, GOJO