



How Brands and Retailers Can Move to More Sustainable Chemicals



www.TextileExchange.org

TEXTILE EXCHANGE TRANSFORMATION MODEL



TE provides the knowledge and tools to the textile industry to make significant improvements in three core areas: **Fiber and Materials**, **Integrity and Standards**, and **Supply Network**.

Our initiatives deliver informative data and “how-to” resources to the industry, collaborating with both members and the industry-at-large in a continuous learning environment to accelerate and drive industry transformational change.

With continued learning opportunities, farmers, factories, brands, and retailers gain the knowledge they need to take **action** toward creating a safer, cleaner, healthier industry.

How Brands and Retailers Can Move to More Sustainable Chemicals

Ben Mead

Managing Director, Hohenstein Institute America

May 11, 2016

OEKO-TEX® historical review

Monitoring OUTPUT



Product certification & Label for trading

- Consumer protection
- Harmonizing legal requirements
- Regulatory compliance
- Advantages in external communication
- Market access (USA, EU, Asia etc.)



OEKO-TEX® concept today

Input



Output



Components

Production

Product & Trade



5 Transparency for all stakeholder groups



A photograph of two young girls sitting on a wicker sofa. The girl on the left has blonde hair and is wearing a white floral dress. The girl on the right has dark hair and is wearing a pink dress. Both girls are clapping their hands and looking towards the camera with happy expressions. The sofa has white pillows and a white blanket.

OEKO-TEX® Standard 100



What is the OEKO-TEX® Standard 100?

- Realistic risk assessment of potentially harmful substances in textiles by:
 - Inclusion of legal requirements
 - Scientifically sound criteria and test methods
 - Use-oriented testing
- Using a uniform set of criteria (RSL) for the analysis of harmful substances
- Quality assurance via spot audits
- Sample picks of goods placed on the market



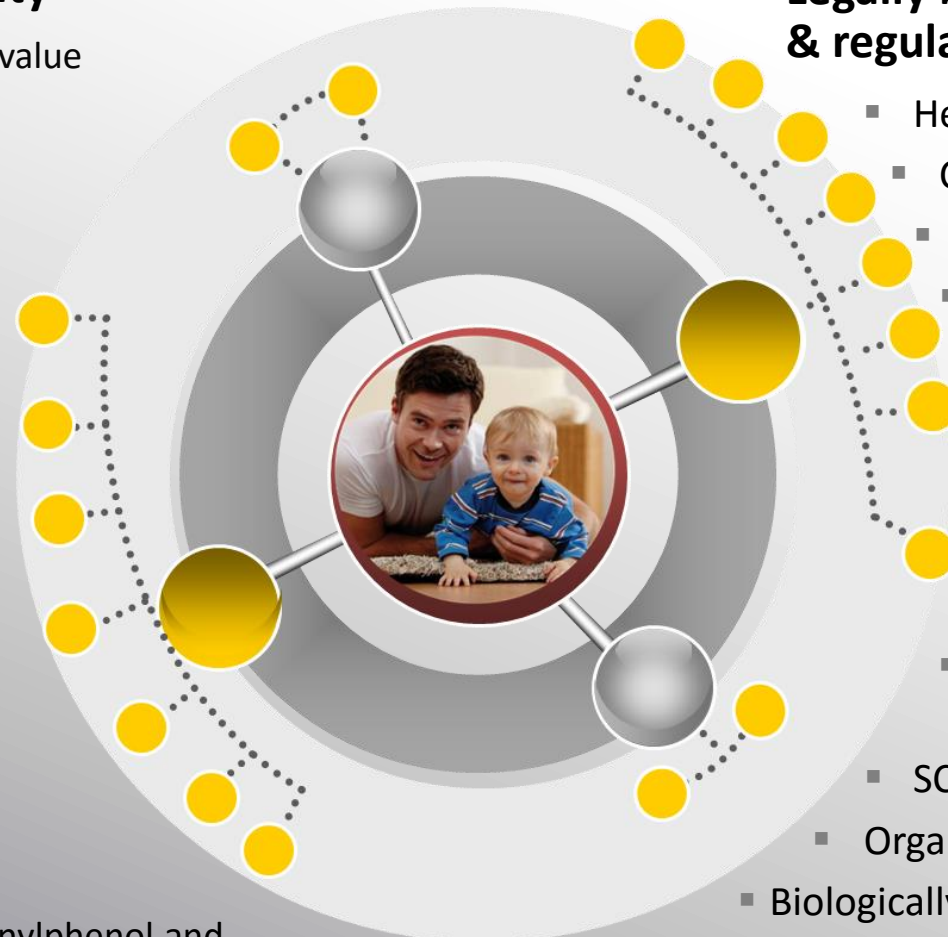
New OEKO-TEX® Standard 100 criteria*

Product quality

- Skin friendly pH value
- Colour fastness

Legally banned & regulated substances

- Heavy metals, e.g. nickel, chromium(VI)
- Carcinogenic dyes/colourants
- Chlorinated phenols – PCP
- Total content of cadmium and lead
- Phthalates/softener
- Banned AZO colourants
- Formaldehyde
- Dimethyl fumarate (DMFu)
- PFOS, PFOA
- Flame-retardant products (e.g., TRIS, TEPA, among others)
- SCCP and TCEP
- Organotin compounds (TBT, TPhT, DBT, DOT)
- Biologically active and flame-retardant products are regulated separately



Other potentially harmful substances

- Allergenic disperse dyes
- Polycyclic aromatic hydrocarbons (PAH)
- Extractable heavy metals (e.g., As, Hg, Pb, etc.)
- Chlorinated phenols (TeCP, TrCP)
- Chlorinated benzenes and toluenes
- Pesticides
- Perfluorinated compounds (PFUdA, PFDoA, etc.)
- Solvent residues (NMP, DMAc, DMF Formamide)
- Emission of volatiles
- Surfactant, wetting agent residues: Nonylphenol and octylphenol ethoxylates; nonylphenol and octylphenol

STeP by OEKO-TEX®



The 6 STeP by OEKO-TEX® modules



1 Chemicals



Core principles

- Chemical management
- Comprehensive MRSL list
- Towards „green chemistry“
 - ✓ Prevention
 - ✓ Education & training
 - ✓ Information and monitoring



Key aspects of chemical management

- ✓ **Prevention** through education on-site
- ✓ **Precaution** by workers and management training
- ✓ **Evaluation of chemicals** used (incl. RSL/MRSL **verification**)
- ✓ Review of **chemical handling and management**
- ✓ **Corrective action** monitoring and review
- ✓ **Verification** of technical conditions
- ✓ **On-site support**, advice and **capacity building**
- ✓ Support of **continuous improvement**



Transparent assessment

OEKO-TEX®

CERTIFICATE

Any Company, Inc.
123 Any Street
Switzerland, 12345, Anytown

is granted authorization according to StTeP to use the OEKO-TEX® mark for its facility.



LEVEL 2

- CHEMICALS: LEVEL 2
- ENVIRONMENTAL PERFORMANCE: LEVEL 2
- ENVIRONMENTAL MANAGEMENT: LEVEL 1
- SOCIAL RESPONSIBILITY: LEVEL 2
- QUALITY MANAGEMENT: LEVEL 3
- SAFETY: LEVEL 2

security code **3wtkiijl** valid until **2017-07-31**

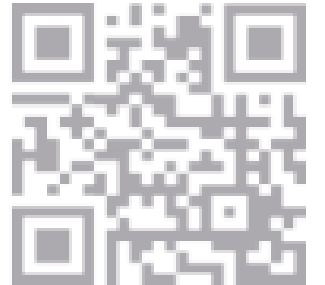
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00000000 Institute



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ECO PASSPORT by OEKO-TEX®

Industry shifting to an attributes based approach

- Requires **knowledge** of chemical ingredients in materials and products (bill of substances)
- Requires **assurance** that ingredients do not contain impurities and side products
- Requires **verification** of the MRSL and RSL requirements defined by industry groups, NGOs or brands



ECO PASSPORT: Two stage verification system

OEKO-TEX® comprehensive certification system for textile chemical, dyes, auxiliaries:

- ✓ Includes a two stage MRSL / RSL verification process:
 - Stage I: Compliance Screening
 - Stage II: Analytical Verification
- ✓ Now: OEKO-TEX® buying guide includes textile chemicals



ECO PASSPORT: RSL/MRSL Compliance Screening



- Chemicals are screened, at the ingredient level (CAS #s), against the OEKO-TEX® restricted substance lists (**RSL**) and manufacturing restricted substance lists (**MRSL**)
- Compliance comparison in a **cost effective** manner. Customers will be informed about any non-compliance quickly and efficiently about ingredients of concern in order to make substitutions prior to the analytical verification.

ECO PASSPORT: Analytical Verification



- **Analytical verification** in our OEKO-TEX® laboratories ensure that certified chemical products can be used in the **more sustainable production** of human ecologically optimized textile products.
- Chemicals, auxiliaries and dyes awarded with the **ECO PASSPORT will be recognized** in the OEKO-TEX® Standard 100 as well as in all textile manufacturing verification process of STeP by OEKO-TEX®

ECO PASSPORT: Certification Process

ECO PASSPORT CERTIFICATE

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ABC12345 Institute
Textile chemicals. Tested and verified.
www.oeko-tex.com/ecopassport

CERTIFICATE

Company: John Doe Ltd.
123 Anywhere Street
Anytown, Anyland 12345

Product(s): JD-01, JD-02

Category: Textile auxiliaries for dyeing and printing

Certificate No.: ABC12345

Issued By: OEKO-TEX® Institute

Date of Issue: 05.04.2016

Supporting Documents:

- RSL Screening Report
- Analytical Test Report Number: ABC12345
- Declaration of Conformity in accordance with EN ISO 17050 -1
- Detailed information about the components and Safety Data Sheets of the chemical products mentioned above

The above captioned product(s) can be used for the production of human-ecological optimized textiles. The results of the tests mentioned in the above documents reveal that there is no harmful effect on the human and environmental health of the textiles treated/finished with the above mentioned products.

This evaluation used the test methods and requirements of the ECO PASSPORT by OEKO-TEX® that were in force at the time of the evaluation date.

This ECO PASSPORT certificate is valid until 30.04.2017.

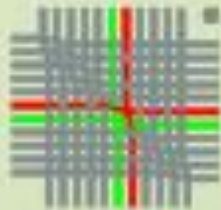
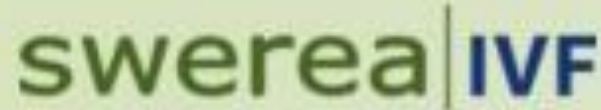

Max Average
OEKO-TEX® member institute


Sam Sim
OEKO-TEX® member institute

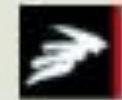
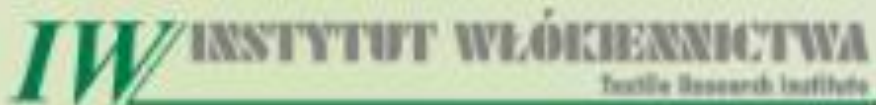
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- **Application form**
 - Quality Assurance program
 - SDS
 - Intended uses
 - Bill of Substances & Formulation
- **Cost of Certification**
- **Stage I Screening**
- **Stage II Analytical Verification**
- **Certificate Issued**
 - 1 year validity
- **Entry in Buying Guide**

The OEKO-TEX® Association



TESTEX®



DANISH TECHNOLOGICAL INSTITUTE



VÜTCH-CHEMITEX



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Questions?

