Getting Ready
The Challenge of REACH
Experiences of a
Textile dye manufacturer

Dr. Eva Leweke
Workshop: Impact of REACH on Textiles and Clothing Suppliers in Mediterranean Partner Countries
27 Oct 2008, Istanbul
The DyStar Group at a glance

- **Name**  DyStar Textilfarben GmbH
- **Sales**  about EUR 850 million
- **Employees**  approx. 4,000 worldwide
- **Locations**  
  - Headquarter in Frankfurt
  - 9 Sales areas around the globe
  - Sales companies in all key markets
  - Agencies in about 50 other countries
  - 20 production facilities in 11 countries
DyStar’s History

- July 1995  
  Formation of DyStar as the textile dyes company of **Bayer** and **Hoechst**

- October 2000  
  Merger with **BASF** textile dyes

- May 2002  
  Acquisition of **Color Solutions Inc.**

- February 2004  
  Acquisition of the textile dyes business of **Yorkshire Americas Inc.**

- August 2004  
  Acquisition of **DyStar by Platinum Equity**

- January 2005  
  Acquisition of the **Rotta Group**

- August 2006  
  Acquisition of the **Boehme Group**

- September 2007  
  Acquisition of **Texanlab**
Breakdown of sales by region in 2006

Asia: 38%
Europe: 35%
Americas: 22%
ROW: 5%
In addition, DyStar has agencies in other 50 countries.
Our offer for the textile industry

Dyes

Auxiliaries

Services
Only chemical Substances, no Preparations

Definition:
a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition;

e.g. CI Reactive Black 5
Substances in Articles

Article 7(1)

- substances in articles should only be registered when
  - substance is present in the article in total over 1 tonne per producer/importer per year, and
  - substance is intended to be released during normal and foreseeable conditions of use

- Article 7(1) does not apply if the substance has already been registered for that use.
Release of substances from articles is **intended** when

- the release is essential for the end use function of the article or when the article would not work sufficiently well without the release
  
  e.g. release of ink from felt tip pens

- the release contributes to the quality or minor function of the article i.e. the release contributes to an added value of the article which is not directly connected to the end use function

- e.g. release of perfume from a dishwasher tablet
A release is **not** considered to be **an intended** release in the following case

- A release occurs during the use or maintenance of the article….but the released substances do not contribute to the function of the article.

- Example: Washing of clothes by the consumer where remnants of different chemicals (dye, softener, starch etc.) from processing are removed over some washing cycles.
Identified substances of very high concern (SVHC) should be notified when

- substance is present in the article in total > 1 tonne per year
- substance is present in the article in a concentration > 0.1% (w/w)

If the producer/importer can exclude exposure of humans or the environment he does not need to notify, but shall supply appropriate instructions to the recipient of the article
Impact of REACH on DyStar

- **Production at 5 sites in the EU**
  - Chemicals
    - manufacturer
    - importer/DU of raw materials/intermediates
  - Preparations
    - importer/DU of raw materials/intermediates/preparations
  - Polymers
    - importer/DU of monomers and polymers

- **Manufacture globally and import our products into the EU**
  - importer of intermediates/preparations

- **Sell into industrial and professional market**
  - Communication along the supply chain

- **In EU alone** > 5000 REACH relevant products resulting in
  - > 2500 REACH relevant chemical substances
Impact of REACH

REACH - nearly all departments of DyStar are affected
Key business issues associated with REACH

- Cooperation with competitors within Pre-SIEFs, later SIEFs
- Formation of consortia within SIEFs
- Issues associated with data sharing
- Value associated with available test data
- Potential for streamlining of products purchased and sold
- Understanding of legal entity structure and implications associated with LE structure
- Impact of REACH to be included in business plans
Internal Activities - overview

- Continuous monitoring of REACH projects (e.g. RIPs)
- DyStar High Level Working Group on REACH
- Training DyStar colleagues about REACH
- Building up auditable systems to manage information with view to REACH compliance
- Understand that REACH brings both compliance and business issues
Internal Activities - details

- Pre-registration and registration related activities

- Preparation of an inventory of all REACH relevant substances (RRS)
  - dilemma of knowledge between substances vs. marketed preparations
    (big practical implication!)
  - Challenge to keep inventory list up to date due to fast changing portfolio

- Approvals of product assessments
  - Compositions / Volumes
  - Cross check volume of substances for registration

- Data gap analysis, maintenance of missing data for pre-registration and registration

- Implementation of IT tools
  - Should be used for all preparatory actions
    (reverse of burden of proof from authorities to industry)
● Pre-registration and registration related activities

- Check and categorize of intended uses and exposure scenarios (own and downstream)

→ Using matrix of German VCI (UEC)
→ Development of standard exposure scenarios
**Short Title**: Volatile Substances used in Preparations for textile processing

**Use Exposure Categories**: 28, 29 (industrial, professional, air, long-term)

**Existing [assumed, recommended] conditions of use**

<table>
<thead>
<tr>
<th>Description of process including product specification</th>
<th>Finishing of fabric in solutions containing volatile auxiliaries (exhaust process or foulard process), including weighing, charging and mixing of powdered or liquid auxiliaries.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration/frequency of exposure (emissions)</td>
<td>Continuous or repeated exposure to air more than 12 d a year.</td>
</tr>
</tbody>
</table>
| Other relevant operational conditions                    | Daily amount used at local site < 150 Kg*  
Absorbing air volume 3,5 $10^9$ m$^3$/d*.  
* use expo tool “texpo” to adapt if necessary. |

**Optional [assumed, recommended] risk management measures, incl. their efficiency**

- Calculation of the emission based on the emission factor system (“Bausteinekonzept”, elements for regulation of textile finishing)  
  - heat recovery  
  - exhaust air scrubber  
  - ionisation and electric filtering

**Status**: Draft, still in discussion

**Developed by**: TEGEWA and Textile Associations

**Date**: January 07
# Internal Activities - details

<table>
<thead>
<tr>
<th>Short Title</th>
<th>Dyestuff used in preparations for textile dying</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UEC</strong></td>
<td>19, 20, 22, 23 (industrial, professional, water, short term, industrial water long term)</td>
</tr>
</tbody>
</table>

## Existing [assumed, recommended] conditions of use

| Description of process including product specification | Dipping of fabric in aqueous solutions of dyes (exhaust process or foulard process), including weighing, charging and mixing of powdered, granulated or liquid dye stuff. Technical process efficiency limits the loss of dye into water to < 30% of applied amount*. |
| Duration/frequency of exposure (emissions) | Continuous or repeated exposure to water more than 12 d a year (UEC 22) or less than 12 d (UEC 19). |
| Other relevant operational conditions | Daily amount used at local site < 150 Kg*  
Locally available water flow to absorb the emission: > 20,000 m3/d*  
* If PEC/PNEC > 1 using the default values use expo tool “texpo” to adapt |

## Optional [assumed, recommended] risk management measures, incl. their efficiency

| RMM | - **optimised process control** (e.g. retaining of residues (foulard), approx. 50%*, automatic colour batch station, approx.20%*, choice of suitable dyes and auxiliaries regarded to the type of fibres to be treated, approx. 30%*): several combined RMM might lead to a reduction up to 90%*  
- **waste water treatment** (e.g. precipitation, membrane filtration, oxidation with UV/ozone, adsorption at sewage sludge): several combined RMM might lead to a reduction up to 90%*.  
* related to dye loss into water |

## Status

Final, based on ES from RIP 3.2.1 and 3.5.1

## Developed by

TEGEWA and Textile Associations

## Date

January 07
**Pre-registration and registration related activities**

- Extended MSDS requirements
- Database development and maintenance
- Collect and assess existing data/information
- Prepare for Substance Information Exchange Forum (SIEF)
- IUCLID5 training of the staff
Internal Activities - details

- Communication
  - Internally to purchasing / manufacturing and sales
  - Effects on non-EU sites
  - Customer support
    - General customer information letter
    - Extended MSDS REACH Statement
    - reach@DyStar.com established
    - Clear REACH statement and FAQ on our home page (www.dystar.com)
  - Supplier reviews – REACH stable supply chain
    - Knowledge of composition of imported preparations
  - Customer seminars
    - Face to face presentation for key accounts
    - Bulletin available with core message
Internal Activities – IT Tools (1)

- **Implementation of an automated solution (Substance volume tracking)**
  - Preparation of an inventory of REACH relevant substances (RRS)
    - REACH relevant products are marked
    - Compositions will be broken down in RRS
    - Volume per single RRS will be tracked and aggregated per Legal entity
  - Allocation of appropriate role of DyStar for each RRS, e.g.
    - manufacturer
    - importer
    - downstream user
- Implementing REACH IT
  - for pre-registration and contacting other pre-SIEF members

- Implementing ICUCLID 5
  - for pre-registration and registration dossiers

- Implementing a document and mail management system
  - For registration purposes > 100 000 documents of different formats (doc, xls, pdf, tif …) are expected
  - Communication in > 2500 SIEFs ( > 100 000 mails expected)
  - Data sharing (> 200 000 mails expected)
  - Communication with competent authorities (> 50 000 mails expected)
  - Communication along the supply chain ( > 100 000 mails expected)
  - …

- Under discussion: Tool for SIEF communication
External Activities

- Co-operation in national and international working groups
  (UBA, VCI, TEGEWA, Textilverband Nord-West, CEFIC in co-operation with ECB)
  - To represent the interests of the textile industry
  - To increase detailed understanding of REACH within DyStar
  - To ensure effective communication along the textile value chain
    (Manufacturer <-- User <-- Consumer)

- Activities
  - Drafting of model MSDS in co-operation with textile partners in Germany
    (UBA, TEGEWA, VCI)
  - Co-operation in the development of models for use and exposure scenarios (ES) in order to
    - Allow efficient preparation of chemical safety assessments (CSA)
    - Transfer of information into the MSDS according to REACH (supported by SAP)
  - RIP 3.2-2 Task 1: Development of standard ES for the textile industry for
    manufacturers, users and consumers (CEFIC, VCI, Textilverband Nord-West, Ökopol)
REACH is the most extensive and complex legislative project adopted by the EU and a major challenge for the chemical industry and its customers.

DyStar is on track to meet its obligations