WELCOME TO THE SAICM/UCT CHEMICALS IN PRODUCTS COMMUNITY OF PRACTICE

Introduce yourself (name, job title, organization and country) in the chat section.

Only the presenter and facilitator will speak. Any comments or questions from attendees should be typed in the chat section.

Please kindly keep you microphone muted and cameras off during the discussion.

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https://chat.whatsapp.com/DVwGix7x04d1Q9b5usaJcr

Discussion 1:

Topic: Industry initiatives and information sharing on chemicals in products in the supply chain

Date: 18th February 2021

- Time: 10:00 – 11:30 (GMT+2)
- Presenter: Timo Unger, Hyundai & Kia Motor Group
- Facilitator: Andrea Rother, University of Cape Town
- Chair: Maxine Brassell, MPH student, University of Cape Town

This activity is supported by the Global Environment Facility (GEF) project ID: 9771 on Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM).
Chemicals in Products
Community of Practice

Discussion 1:
Industry initiatives and information sharing on chemicals in products in the supply chain

PRESENTER

Timo Unger
Manager of Environmental Affairs for the European R&D Centre of Hyundai & Kia Motor Company
• To give an industry perspective on dealing with chemicals in products.
Introduction:
Presented by: Timo Unger
Material Declaration

Community of Practice on Chemicals in Products

Webinar, 18.02.2021

Timo Unger

An Automotive Perspective, Outlook & Recommendation
The long way through a typical international supply chain

- **Tier 1 (OEM)**: 1.500
  - X 500
  - 750,000
  - X 100
  - 75 Mio
  - X 50
  - 3.75 Bn
  - X 50
  - 187 Bn

1. **Raw material Producer (Tier 4)**: Natural rubber
2. **Material Formulator (Tier 3)**
3. **1. Article Producer (Tier 2)**
4. **End Producer (Tier 1)**
5. **Vehicle Producer (OEM)**
Which substances are
• contained in my products
and are
• (likely to be) regulated?
• (likely to be) hazardous?
• (likely to cause) a risk?
• likely to be substituted?
• likely to be important for recyclers
• likely to ….?
### Advantages (Extract from CIP Program)

**Potential advantages of the Chemicals in Products Programme**

<table>
<thead>
<tr>
<th>For Industry</th>
<th>For other Stakeholders</th>
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<tbody>
<tr>
<td>Major cost savings in the supply chain caused by the implementation of sector wide approaches using standardized and automated methodologies</td>
<td>Product designers are better informed of chemical content issues</td>
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<tr>
<td>Legislators and non-governmental organisations come to appreciate the sector’s compliance processes</td>
<td>Waste management activities can be guided</td>
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<tr>
<td>In case of new substance obligation, the sector has the possibility to take the necessary countermeasures in time</td>
<td>Increased access by Governments to chemicals in products information</td>
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<tr>
<td>Facilitate supplier compliance</td>
<td>Non-governmental organizations have increased access to CiP information</td>
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<tr>
<td>Opportunities for innovation and green chemistry</td>
<td></td>
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<tr>
<td>Individual customer requests can be satisfied with reliable answers</td>
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Table 1: Extract of Box 2 in the Guidance for stakeholders on exchanging chemicals in products information

http://wedocs.unep.org/bitstream/handle/20.500.11822/21228/CiPProgramme_Industry%20Extract_FINAL.pdf?sequence=1&isAllowed=y

**Impressum**

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To protect CBI, Material Manufac. are allowed to „hide“ up to 10% of their recipe behind so called “Jokers”, e.g. “Further Additives”

**BUT:**

If a substance is listed on GADSL (= prohibited or declarable), it must not be hidden behind a Joker but has to be reported

⇒ No CBI Protection for GADSL Listed Substances

⇒ GADSL has to be absolutely correct to ensure CBI Protection
Features of IMDS

▪ All involved parties can use IMDS via internet.
▪ IMDS is free of charge for the supply chain.
▪ Data security is ensured by user and transaction-related security architecture.
▪ Within the supply chain, material data can be forwarded in real-time according to authorization rights.
▪ The material data remains in possession of the creator who grants using rights to specific receivers.
▪ The system undergoes continuous improvements and enhancements to fulfil new requirements.

- Structure of a part (according to bill of materials)
- Materials Used (incl. material categories)/
- Weights of the components and
- Substances (incl. all substances of concern)
- Concentration of the substances within materials
Further numbers:
85,000,000 Material Datasheet
Ø 2,400 Concurrent Users
~14,000 Reported Substances
Data Quality

Experience based

It costs many Millions of € to develop, maintain and optimize the system. The increase of data quality is the result of an intensive cooperation between vehicle manufacturers, their suppliers and the chem. industry. It took years to train the supply chain = get reliable data!


IMDS – A global standard
**STRENGTH:**
Well established process in the whole automotive sector (Global Standard)
- Suppliers can address many customers with the same solution
Well trained supply chain
Broadly accepted by chemical industry (CBI protection)
Comprehensive overview on substances used in cars
Known and accepted by global legislators (Simplified Compliance Audits)
Reporting by the one with most knowledge (Substance, Material or Part producer)
Cost free for supply chain
...

**WEAKNESS:**
- Costs of ownership
- Complexity of reporting
- Duration for a correct and complete data collection / updates is partly not in line with legal timeframe (e.g. Art 33, REACH)
- Dependency on supplier support and information (Poor data = poor compliance)
- Sh...in, sh... out principle
Question 1:

In your sector/organisation what do you think are the key issues to ensure reliability of chemical and waste information that is being provided to you for decision making?

This question will be discussed for 25 minutes.
Please use chat only, mute your microphone, and turn your video off.

Thank you!

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Secret of success

- **Factors that enabled the Automotive Industry to implement IMDS**
  - Very homogenous industry (limited number of global vehicle manufacturers)
  - Very similar quality standards across all vehicle manufacturers
  - Material compliance is mainly considered a non-competitive business area
    - Very open and good cooperation (Challenge: Competition law...)
  - Early legal requirements (ELV Directive - Heavy Metal Ban in 2003)
  - Large influence in AND good cooperation with global supply chain
  - High longevity of our products = less dynamic variation of article compositions (except electronics)
    - It takes up to 6 month to get a full reporting for a complex component (e.g. Instrument Panel)
Main challenges for other sectors

- Most sectors are more heterogeneous than the Auto Industry e.g. Electronics, Textiles, ...
  - More end-product manufacturers
  - Different quality standards
  - Less cooperation
  - Legal requirements started late (with REACH!?)
  - Very few influence in / cooperation with supply chain
  - More dynamic supply chain

Less influence / pressure into the supply chain = Less success!
The more harmonized a sector is, the more efficiently it can implement such a system!
The Challenge - Underestimation

It is pretty easy for industry to know and disclose their article compositions.

- Most stakeholders completely underestimate the complexity and overestimate the feasibility of development, maintenance and usage of a SiA reporting tool.
- But also many industries still consider such knowledge as burden and not as chance.
Case Study: Challenges of EE-Reporting’s

- Highly dynamic supply chain
  - Suppliers for the same product (e.g. resistors) are changing within hours / days
  - The detailed material composition of a PCBA therefore changes continuously several times a day, even within a production batch
  - Identical is only the performance but not necessarily the material composition

- Difficult supply chain - reduced possibilities to insist in Art 33 information
  - Often suppliers are larger than the OEMs (less pressure / influence into supply chain)
  - Only few EU based component suppliers – no legal but only contractual obligations!

- Highly complex micro articles
  - Possible hundred's of Art 33 reporting's only for one small PCBA (e.g. Lead in solder)
  - Very few Milligrams of the SVHC

A correct reporting for E/E is totally unrealistic!
Data completeness vs. complex articles

Complex products
Complex supply chain
Complex data collection

100% data completeness is almost impossible?
Recommendation to Industry

• All of industry may start with a pro-active initiative on the development of common rules

Major prerequisites for a cross-sector data exchange:

Data Structure/Format and Detail
- Full Material Disclosure vs. e.g. Negative reporting
- Database, xml, pdf, …

Data security
- Who is allowed to have access to the data and system (Internal: e.g. No Purchasing & External: e.g. No Authorities?)
- How is the data protected (e.g. against hacking)?

Data usage
- For what purpose the data is allowed to be used (e.g. Environmental protection, Compliance vs. Commercial use)?

Data collection
- Similar Basic Substance List (BSL)
- Reporting against the same Restricted Substance List (GADSL) etc.

Data quality
- Joker handling (≤ 10%)
- Process Chemicals
- Correctness of data, etc.

• The more harmonized within a sector, the more individual industries and the sooner… the better!
• Sector / market leaders have to set the scene… others will (have to) follow
• Service providers MUST NOT lead but have to follow!
• No cross sector harmonization will turn the advantages into disadvantages…. 
**Full Material Declaration (FMD)**

- A FMD provides the %-weight of each individual material in the part and the %-weight of each **substance** which is intentionally added to each material =>

  - Defined Data → All Data

- Its implementation is not an easy task but a strategic goal which could solve many of the before mentioned challenges…

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>No need to continuously update declarations when legal/non-legal requirements are updated/ increasing (e.g. more substances are added to regulatory lists).</td>
<td>Large efforts are required to prepare for FMD, especially but not only for complex articles.</td>
</tr>
<tr>
<td>Helps to quickly evaluate own product portfolios against diverse current and future substance requirements (No timely delay).</td>
<td>Risk of losing proprietary information on Confidential Business Information (CBI).</td>
</tr>
<tr>
<td>Helps to start with timely compliance and advocacy measures incl. substitutions</td>
<td>Risk of non-acceptance by supply chain members (Contradicting company policies!)</td>
</tr>
<tr>
<td>Long term: Cost decrease &amp; Quality increase</td>
<td>Risk of higher system costs for data security</td>
</tr>
</tbody>
</table>
Question 2:

- What are the strengths, weaknesses and opportunities of industry cross sector data exchange for sustainable chemicals and waste management?
- Your comments could include what information is needed by waste operators (including recycling).

This question will be discussed for 25 minutes.
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GADSL – Benefits of a Declarable Substance List

European requirements collected by European members

Korean requirements collected by Korean members

Japanese requirements collected by Japanese members

North American requirements collected by US members

The realistic alternative to a FMD (→ 100% declaration of at least the listed substances)
No cross sector harmonization will turn the advantages into disadvantages….
Global regulatory monitoring project

- Develop a common & solid processes for monitoring global SOCs requirements:
  - **Advocacy**: take influence before regulations are enforced (Drafts)
  - **Assessment**: define impact on Automotive Industry business to maintain GADSL
  - **Act**: implement countermeasures & ensure compliant products.

Which regulations apply to the (Auto-) sector and how are relevant substances regulated?

- GRMS² Project is ongoing
- Service provider: Yordas Group (former: The Reach Center)
- System is Life since Nov 2018
- Licenses for automotive stakeholders are available
Future outlook / recommendation

Proposal for a solution, driven by an International Organisation (IO)

Individual industry driven initiatives are neither efficient nor fully reliable

Proposal:

Cooperation with governments e.g. by involving
- OECD: Possibility extension of the OECD Substitution and Alternatives Assessment (SAAT) Toolbox
- WTO: Possible link to WTO Notification Process
- UN Environment / SAICM: Possible extension of the CiP* Program and/or other SAICM initiatives
- ECHA: Possible extension of the e-chem portal

*CiP: UNEP / SAICM Program on Chemicals in Products
Advantages of an „IO“ driven initiative

- **Global SMEs incl. Industries in Development Countries:**
  - Can make business decisions based on information that is correct and inexpensive

- **Industries in general:**
  - Don't have to invest separately into similar projects (as it is today)
  - Will benefit from the possibility to comment into the legislative development process
  - Will be able to prepare early for a possible regulation
  - Waste sector: Will benefit from a more sustainable waste stream

- **Global Legislators:**
  - Will benefit from the input of Industry to improve the legislation
  - (Lessons Learned from the successful REACH PACT / RMOA Process)
  - Legislative development process of developing countries will improve

- **Consumers**
  - Will benefit from increasing compliance of the End-Products
Reflection time

• Time for reflection, any questions or comments.

This question will be discussed for 25 minutes.
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THANK YOU
for attending the
Chemicals in Products
CoP
Discussion

Please fill out the following survey to give feedback on
today’s discussion:

https://forms.office.com/Pages/ResponsePage.aspx?id=NUNFkk5Wz0ywsCREW4wD92pVK-1gQzNHlYW4qnca1WNUM1Q4Mkl5NFdQUlFaSldMWTFOOVZQS0JIMyQlQCN0PWcu

SAVE THE DATE:
CiP CoP Discussion
Date: 15th April 2021
Topic: Chemicals of concern in building materials

All resources and summaries of previous CiP CoP discussions are available at the following link:
https://saicmknowledge.org/topic/community-practice

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