ESCom project
Version 2.0 release

ESCom XML
ESCom Standard Phrase Catalogue
July 2015
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I. Introduction

ESCom activities fall under Action Area 3 of CSR/ES Roadmap\(^1\) as they aim to further develop IT tool and standardisation to exchange Exposure Scenarios for communication along the supply chain.

The two branches are tightly bound because the more the information generated by a system is standardized, the more easily it can be exchanged by different actors in the supply chain and processing by IT systems can be automated.

Implementing ESCom will help to exchange standardized information in the supply chain

\(^1\) For more information, refer to: [CSR/ES Roadmap](#)
What are the benefits of the improvement in communication?

• Quality
  – Completeness of information
  – Tailored information
  – Consistency and clarity of exchanged data
  – Avoid human errors

• Automation
  – Eliminate manual indexing/data extraction
  – Facilitate processing of voluminous information
  – Visibility and tracking data exchange
ESCom project is naturally linked to many other activities under the CSR/ES Roadmap. In particular, the release 2.0 has a direct connection with:

- **Improved sector Use maps**: in Use maps’ template, title phrases should be included only using standard phrases with the associated Phrase ID, but also other fields can be populated by making use of the standard phrases in the catalogue, like LCS, UDs, ...

- **SPERCs, SCEDs, SWEDs**: the development of these exposure assessment determinants should be translated into specific sets of standard phrases to be used in the ES

- **Chesar development**: possibility to generate ES using ESCom XML format via Chesar to use them as first input to the supply chain

- Harmonization of **format for the ES**: fields needed for the phrases have been defined and phrases developed for them.

- ...
I. Introduction

To support the exchange of information via the ESs for communication along the supply chain, standardization is required at different levels:

- **Wording**
  - ESCom Phrase Catalogue

- **Structure**
  - ESCom XML

= ESCom Package
II. Updates on the state of play: ESCom Version 2.0

The release 2.0 of the ESCom Package aims at supporting the effective communication of ESs information for substances between M/I, Formulators and DU’s.

The package 2.0 includes:

- An updated version of the Standard Phrase Catalogue
- An updated version of the ESCom XML Schema

How were these elements developed?

- Technical work done in close cooperation between the expert groups responsible for the maintenance of the elements in the package (Phrases WG and XML IT WG)
- Liaising with sector associations and exposure estimation tools owners (e.g. ECETOC TRA, Stoffenmanager, MEASE, RoD …)
- Effort in alignment between ESCom package and other Roadmap activities
II. Updates on the state of play: ESCom Version 2.0

What is new in the ESCom XML? (1/2)

As in the old version, the XML is composed of different Sections and Sub-Sections that correspond to the sections and sub-sections that can be found in the ES, such as Sewage Treatment Plant (STP), Technical and Organisational Measures (TOM), ... and each section and sub-section includes one or more attributes.
II. Updates on the state of play: ESCom Version 2.0

What is new in the ESCom XML? (2/2)

However, changes have now been implemented to fulfil different needs:

- **Mapping** to phrase Catalogue: attributes’ data types have been changed to be consistent with rules defined for phrases and with the content of the ES
- Support for **new communication requirements**: need to include additional info, e.g. attributes for ES structured short titles (SST)
- Alignment with **ES template** published by ECHA: sections and attributes included for each one of them have been modified
- Temporary elements to support adaptation period, e.g. generic sections
- Elements to support areas where future developments are still needed, e.g. fields in ES Section 4

The version 2.0 of the ESCom XML has been finalised and is now published with the Standard Phrase Catalogue 2.0; **the XML will remain stable for at least 2 years.**
II. Updates on the state of play: ESCom Version 2.0

What is new in the ESCom Standard Phrase Catalogue? (1/3) – The Structure

As in the previous version, the Catalogue includes a list of phrases and for each phrase a set of metadata is specified.

However, the structure itself of the Catalogue has been modified to improve the quality of information included:
- General ‘cleaning’ of already existing metadata (= categorization of every phrase) to improve readability of the phrases’ list
- Inclusion of mapping to the XML
- Additional worksheets with description of possible metadata entries that can be assigned
- Deletion of redundant columns
What is new in the ESCom Standard Phrase Catalogue? - The mapping (2/3)

To ensure that catalogue and XML can work together, the meaning and intent of each phrase in the catalogue as well as where it fits in the structure of the XML needs to be clear. This clear link is referred to as “mapping”.

In the 2.0 package release, the mapping is included for all phrases that are active and can be used in one of the four sections of the ES generated for a substance.

How to find the mapping in the catalogue?

The mapping is included via an additional metadata in the master file where all phrases are listed. In addition to this, an “IT readable” version of this phrases list will be included in the published package (to be used with the ESCom XML).

### ES Phrases - Master workfile - V2.0

<table>
<thead>
<tr>
<th>Unique Phrase code</th>
<th>Phrase Status</th>
<th>Previous Phrase code</th>
<th>Phrase Description (English)</th>
<th>Phrase Originator</th>
<th>Original Phrase Code</th>
<th>ES Section</th>
<th>Contributing Scenario Subheader</th>
<th>Phrase Function</th>
<th>Target Group</th>
<th>XML Metadata</th>
</tr>
</thead>
<tbody>
<tr>
<td>1133171434</td>
<td>A</td>
<td></td>
<td>Drain or remove substance from equipment prior to batch or maintenance.</td>
<td></td>
<td>ESG5</td>
<td>E13</td>
<td>Section 2 - Conditions</td>
<td>Containment</td>
<td>X</td>
<td>Technical, Organizational, Measured, Workers, Measure, Measure, Phrase, Containment</td>
</tr>
<tr>
<td>1133171435</td>
<td>A</td>
<td></td>
<td>Provide extract ventilation to material transfer points and other openings.</td>
<td></td>
<td>ESG5</td>
<td>E02</td>
<td>Section 2 - Conditions</td>
<td>Containment</td>
<td>X</td>
<td>Technical, Organizational, Measured, Workers, Measure, Measure, Phrase, Containment</td>
</tr>
</tbody>
</table>
II. Updates on the state of play: ESCom Version 2.0

What is new in the ESCom Standard Phrase Catalogue? (3/3) – The content

- Quality review for ES Section 2 phrases → Cleaning of list after application of new rules developed by the Phrase WG (these rules are available in a guidance)
- Streamlining → Identification and Inactivation of duplications
- Inclusion of new phrases to ensure that each XML attribute is populated
- Sector phrases reviewed → Identification of phrases that can be streamlined between sectors, evaluation of suitability of phrases for communication to DU, ...
- Assessment tool’s phrases reviewed
- Accepted phrases from on-line proposal tool

The Catalogue will continue to be updated twice a year and the subsequent release will follow by the end of 2015. The next version will include additional cleaning, e.g. extensive quality review applied also to sections 1, 3 and 4, new phrases form proposal tools, updated and new phrases to support use description (new R12 Guidance), additional assessment tool phrases, ....
II. Updates on the state of play: ESCom Version 2.0

What other elements support the package distribution:

- Updated guidance documents
- Attributes descriptions, definitions, and possible metadata combinations associated to the phrases
- Query form on ESCom webpage to direct questions and feedback

All the above information is available on the ESCom webpage:
http://www.cefic.org/Industry-support/Implementing-reach/escom/

And news will be also published via Roadmap website:
III. ESCom implementation

**Companies using chemicals:** start aligning their IT system to ESCom 2.0 and align existing ES content to ESCom standard

- How are we managing ES creation and maintenance? Do I have an expert/team in my company that deals with ES management?
- Is my sector following ESCom activities and can act as mediator? Did my sector develop a set of standard phrases?
- Do I rely on IT system for generation/storing of ES? If yes, check with IT providers how they are going to implement ESCom
- What actions are needed to ensure that my ES in the future are following the ES standard (structure, content, process)
  - Are the ESCom phrases available within my IT system for generation of ES’s?
  - Are the ESCom phrases the preferred phrases to be used in description of ES’s in CSA/CSR and in the ES for communication?
III. ESCom implementation

**IT Providers:** support companies through implementation and discuss business needs

- As an IT provider, am I aware of the content of the package and do I plan to support ESComXML generally and the 2.0 release specifically?
- If so, define the **release schedule** of the necessary features and contact customers and discuss with them implementation steps
- Discuss with companies the **business needs and strategy** for sharing ES data with their customers and, according to the complexity of the company organization, within the company
- Gather **feedback from customers** during implementation and contact XML Working Group in case there are suggestions for additional needs.
III. ESCom implementation

**Sectors:** support companies and help them to provide feedback to ESCom WGs. Identify ESCom overlaps with their activities.

- Promote package and its integration with other activities under CSR/ES Roadmap
- Start gathering feedback from members on the implementation steps and suggest to ESCom WG where additional support and guidance is needed
- Make sure that set of phrases existing in the Catalogue can adequately support communication for the market sectors relevant for my sector

**Tool owners:** make sure that the package is compatible with tool content

- Make sure that set of phrases in the catalogue can cover communication needs related with the assessment tool
- Start to consider how to align its input/output with pick-lists included in the phrase catalogue
IV. ESCom Working Groups

Members of the ESCom WGs:

• ESCom Standard Phrases Working Group:

• ESCom XML IT provider Working Group (as of July 2015):
Glossary

CSA  Chemical Safety Assessment
CSR  Chemical Safety Report
DU   Downstream User
ECHA European Chemicals Agency
ES   Exposure Scenario
ID   Identification number
LCS  Life Cycle Stage
M/I  Manufacturer/Importer
SCED Specific Consumer Exposure Determinant
SPERC Specific Environmental Release Category
SWED Specific Worker Exposures Determinant
SST  Structured Short Title
UD   Use Descriptor