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Guidance on creation, submission and usage of EuPhraC and ESCom phrases

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Introduction

„EuPhraC“ is the acronym for European Phrase Catalogue and is provided by a BusinessEurope working group. It is part of a larger initiative to streamline communication along the supply chain by providing a comprehensive set of tools, data and guidance for an IT based information exchange, aiming at companies both in the chemicals and IT business.

Initially, EuPhraC consisted of standard phrases to be used in the Safety Data Sheets (SDS). EuPhraC has been expanded in early 2010 to include headers and phrases of Chemical Safety Reports (CSR) and Exposure Scenarios for extended SDS as foreseen by the REACH Regulation 1907/2006 as well as being compliant with IUCLID software by offering special data fields required for registration.

EuPhraC's aim is to aid supply chain communication by making expert checked standard phrases available to all interested companies across Europe, including suppliers, downstream users, distributors and software providers. Therefore, the English phrase version is available under the Creative Commons License “Attribution 3.0 Unported” which makes them easy to use freely in any commercial or non-commercial setting (full wording: <http://creativecommons.org/licenses/by/3.0/>).

The ESCom standard for the exchange of Exposure Scenario data between IT systems has been developed to enable consistent communication of ES information throughout the Supply Chain. The standard consists of 2 major components:

- ESCom XML standard, the standard XML format
- ESCom Phrase Catalogue, covering the standard phrases for Exposure Scenario content.

The development of the ESCom standard has been initiated by Cefic and DUCC. The development of the ESCom XML standard has been performed by a group of IT providers. In parallel, Cefic and DUCC have taken responsibility for the ESCom Phrase Catalogue with the objective to develop standard phrases to be applied for Exposure Scenarios. Both ESCom XML as well as ES Standard Phrase Catalogue have been published in a combined package as the ESCom Standard, Release 1.1, in May 2011. An updated version of the ESCom XML (1.2) was developed in October 2011. A second release of the ESCom Phrase Catalogue was published in March 2013 (<http://www.cefic.org>).

On the Exposure Scenario standard phrases, EuPhraC and ESCom are closely working together with the objective to develop and maintain a shared library of unique Exposure Scenario phrases. The ESCom ES Phrase Working Group develops the phrase library, which is then shared and integrated in the EuPhraC library.

This document is work in progress. As legislation and communication requirements change and practical experience with these changes grows, EuPhraC itself and this document are updated. Please send us any questions and comments that might arise.

Download and Usage of EuPhraC and ESCom phrases

In order to use EuPhraC Standard Phrases in a software system, please download the appropriate format at <http://www.euphrac.eu>. This web site also provides more documents and information on the current status. Currently, a CSV and a HTML format are available for download. An XML format and options to download just parts of the library are being discussed such as phrases for Exposure Scenarios. Please consult the documentation of your IT system or ask the system vendor how to import phrase data into your system.

The phrase download contains a list of singular phrases (without concatenation). The EuPhraC tree structure and thus the „structure code“ provides information on parts of the Safety Data Sheet and Exposure Scenario where a phrase might be appropriate, but most of the Exposure Scenario phrases are not yet assigned since this part is still subject to dynamic development.

To use the ESCom ES Phrase Catalogue, this library (Excel format; last release in March 2013) can be downloaded from the Cefic website (<http://www.cefic.org>). Also a Chesar import file is available for download. This enables the user to import the Phrase Library in the ECHA Risk Assessment tool Chesar.

Working Group Contacts

EuPhraC is maintained by the „BusinessEurope Working Group EuPhraC“ which is led by the manager, Dr. Thomas Holtmann (BDI), and the chair, Dr. Anita Hillmer (Volkswagen AG).

BusinessEurope and Cefic have concluded a cooperation agreement regarding EuPhraC. This agreement sets up the framework for the cooperation regarding the addition to EuPhraC of standard phrases for Exposure Scenarios, as prepared by Sector associations, consortia and individual companies. The current Cefic representative in this WG is Dook Noij (interim).

The main contacts for EuPhraC are:

Organisational issues / WG Manager: Dr. Thomas Holtmann (T.Holtmann@bdi.eu)

Content issues / WG chair: Dr. Anita Hillmer (Anita.Hillmer@volkswagen.de)

Technical and linguistic issues: Dr. Dirk Henckels (dirk.henckels@qualisys.eu)

Content issues (ES phrases): Dook Noij (dook.noij@dow.com)

Structure of Standard Phrases

Main purpose of using phrases is the efficient and consistent creation of text paragraphs for Safety Data Sheets and Exposure Scenarios, which will make harmonised electronic data transfer with standardised phrases and also enables documents transformed automatically into other languages.

In order to have phrases used in a consistent and transparent manner, principles, rules and procedures need to be adhered to by all authors who create and maintain phrase data.

Phrase parameters for EuPhraC SDS phrases

The simple case of a phrase wording is a phrase without parameters:

Use in well ventilated areas only.

Wear suitable gloves tested to EN374.

In every case where the same phrase grammatical construction is used with varying items or values, the phrase could be parameterised: „Do not use for more than ... hours.“ For example, some P phrases require modification depending on the substance / mixture they are applied to. Parameters in EuPhraC are marked with three dots (not the special ellipsis character, which looks almost the same).

These are the facts on parameters any phrase user and author needs to be aware of:

- Phrase parameters carry no information on which values are valid as an insertion. They can be numbers, words, or both (e.g. a value and unit). The phrase itself has no possibility to restrict this. Any information on valid parameters (e.g. range limitations for the value of the parameter such as 0-24 for hours) should be written in the phrase remark which is part of the metadata, if it is not as obvious as in the example above.
- A phrase can carry an arbitrary number of parameters, not just one.
- Any parameter can be fixed text or a phrase. (Ideally, even a sequence of fixed texts and/or phrases could be used as a parameter, but this is not required by EuPhraC's parameter usage).
- In other languages, the parameter(s) may appear in another part of the phrase, but parameters do always appear in the same order.

Phrase parameters for ESCom ES phrases

What has been mentioned above for EuPhraC SDS phrases is in general also valid for ESCom ES phrases, however, there are a few differences:

- ESCom phrases can only carry one parameter.
- Phrases with parameters are constructed in such a way that the parameter is located at the end of the phrase: *“Avoid carrying out operation for more than [parameter].”*
- Phrases with parameters contain three extra fields related to the parameter: qualifier, value, unit; a phrase cannot be recognized as a parameter containing phrase as such; this information on the range, the values and the unit is contained in the metadata of the phrase.

Application assumptions

The following assumptions on software working with the EuPhraC phrases catalogue apply:

- A phrase field in an electronic document is filled with a sequence of phrases and fixed text (e.g., temperature values, phone numbers) in arbitrary order. Phrases may even repeat in the same field and must be used in input sequence. (Software systems can restrict this to using phrases only, if fixed text can be represented with the popular concept of “user defined phrases”.)
- Phrases may include one or more parameters – see above.

- Consider also if parameters can be nested: Phrases may contain a phrase as a parameter, which in turn has one or more parameters. This setup is not required so far, but keeps your IT system flexible.

Note: when only working with the ES phrases from the ESCom phrase catalogue, then handling one parameter at the end of the phrase is currently sufficient (refer to 'Phrase parameters').

Rules on the Structure of standard phrases

Any phrase library is based on explicit or implicit assumptions how the user (who may be a human or a software system) works with the phrases. The catalogue is based on the following prerequisites. Examples to these rules are underlined to indicate which words belong to one phrase together; please follow these rules when proposing new phrases to make the EuPhraC SDS and ESCom ES catalogue a practical and convenient help in REACH compliance:

- **ONLY APPLICABLE FOR EUPHRAC SDS PHRASES:** Any phrase may contain one or more parameters which must be marked with three single dots ... (not the ellipsis character). If a sentence finishes right after a parameter, a fourth dot must follow the first three without a space.

Example 1: Limit the substance content in the product to

Note the fourth dot after the parameter which works as punctuation!

Example 2: Covers daily exposure up to ... hours.

Note only three dots are present in this phrase.

- **ONLY APPLICABLE FOR ESCOM ES PHRASES:** Phrases can only contain one parameter which must be positioned at the end of the phrase.

Example 1: Limit the substance content in the product to [parameter]

Example 2 (single phrase): Covers daily exposure up to [parameter]

Note that there is no dot at the end. In the ESCOM ES catalogue phrases with parameters have extra fields contained in the metadata (qualifier, value, unit) to indicate the relevant information (e.g. x hours).

- Only grammatically complete sentences end with a dot.

Example grammatically complete sentence:

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted.

- List items, headers, incomplete sentences (not containing a verb), sentence fragments, etc. should not end with any punctuation (as it is easier and more common for software systems to add punctuation than to remove it). Also use titles, use descriptors and contributing scenarios do not end with punctuation. Examples:

Use descriptor: manufacture of fine chemicals

Header: Human factors not influenced by risk management

Contributing scenario: casting operations

List items: industrial uses

continuous release

- The phrase structure must be identical in all languages. The number of parameters (in EuPhraC phrases) and the number of explanatory insertions (parenthesis) must be the same in all languages.

Example parameters:

English phrase: Store at temperatures not exceeding ... °C / ... °F.

German phrase: Bei Temperaturen von nicht mehr als ... °C / ... °F aufbewahren.

It would be a mismatch if for example the German phrase would only list °C and not °F.

Example insertions:

English phrase: DNEL acute inhalative (local)

German phrase: DNEL akut inhalativ (lokal)

It would be a mismatch if for example the German phrase would not have the insertion between brackets, e.g. '(lokal)', where the English phrase has the insertion.

- Acronyms/abbreviations can only be used if there are matching acronyms/abbreviations in all European languages.

Example:

English phrase: municipal STP

German phrase: kommunale Kläranlage

No abbreviation exist in German language for STP; therefore the phrase in English should also be without abbreviation: municipal sewage treatment plant

- For phrases including abbreviations and/or acronyms the full text of the abbreviation/acronym should be provided, if not yet listed in the public EUPhraC abbreviation/acronym list.
- Phrases may be connected in a serial manner (i.e. they may be concatenated), including punctuation for which the library provides extra phrases. So phrases should never start with punctuation. This keeps the phrase more flexible.

Example: Do not create a phrase (e.g. “alternatively”) to connect phrases. Instead, a phrase “alternatively” should be used together with separate punctuation (phrases).

- Phrase fragments are strongly discouraged. Users (as well as translators) will likely see the phrase without its original context and additional information, remarks and metadata. They will probably misunderstand the meaning of a fragment and translate inappropriately. Either propose full sentences or clearly state a specific context with an example for each and every phrase fragment proposal in the phrase “remark”.
- Only full sentences and headers start with a capital.

- Within a phrase capitals are only used where required. Example: only capitals for ‚REACH‘ and ‚Regulation‘, not for ‚exposure assessment‘ or for ‚risk characterization‘

“According to the article 14(4) of the REACH Regulation (EC) no 1907/2006 a human-related exposure assessment and risk characterization is not required.”

- There is a length limitation in every software system. EuPhraC and ESCom have an internal limitation of 1000 characters per phrase, but this is far more than a single phrase should ever have and more than some software systems can handle. Also bear in mind that translations are up to 30% longer than English, so a phrase for a system with 500 characters should not have more than around 350 characters in English. Please try to match this.

Rules on the Content of standard phrases

- Be consistent. Do not use similar wording for the same meaning (instead use the same). Do not mix single words / list elements with complete sentences (instead, clearly separate both parts with an introductory phrase for the list elements.

Example: *a) In case of skin irritation, consult a physician.*

b) In case of skin reactions, consult a physician.

Are you able to explain the difference? Are you sure the user is, too? Is the difference important to note

- Do not write situation descriptions (operational conditions) together with advice to the user (risk management measures) in the same phrase. At least one part of your proposal may be reused in a different part of the documents, so please split it up.
- Remember a phrase is a segmented text. Do not put all guidance to a specific situation in one sentence. If your phrase proposal consists of more than one grammatically complete sentence, you might want to split the proposal into two. If your proposal text consists of more than one paragraph, you definitely must split the proposal into two or more phrases. A return character (end of a paragraph), as any other so-called whitespace character (tab, or control characters) cannot be part of a phrase.

Example: *Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.*

While it might be useful to have all three sentences together, sentence 2 and 3 are explanatory only and may not be needed in all contexts. Each of these sentences should be one phrase.

- Try to use only one sentence in a standard phrase. If more sentences are needed, split the standard phrase. So the following phrase is what should NOT be done:

Control any potential exposure using measures such as contained or enclosed systems, properly designed and maintained facilities and a good standard of general ventilation. Drain down systems and transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance.

Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; ensure suitable personal protective equipment is

available; clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Additional rules on phrase translations

If you provide translations for your phrases, please mind these additional translation hints:

- Phrases are used in IT systems which have a limited storage length and/or layout space. Make sure that translation length and original length are similar.
- Phrases with parameters must definitely have the same number and order of parameters in every translation. You cannot shuffle parameter, omit or add them, or have a parameter follow as the next phrase if it is marked as a parameter in the original wording.
- Choose similar structures. If you abbreviate a word in one language, do not use the full-length word for the other. If you choose degree Centigrade for one language, do not use Fahrenheit for the other – even if it is more common in the target country. It is up to the IT system to modify units.

How to propose new standard phrases?

EuPhraC/ESCom have implemented an open proposal and consultation process to make phrase library additions possible for every user, and still maintain the quality of an expert group driving the phrase package as well as proper documentation of EuPhraC development. This openness requires everybody to follow the rules set out below; otherwise the proposal needs to be denied.

Phrase proposals

Phrase proposals are accepted for review and acceptance by the section responsible person, one by one via the EuPhraC web interface at <http://content.euphrac.eu/default.aspx> after you have found an appropriate place in the EuPhraC/ESCom structure for your phrase proposal.

As a first step, please use the tool to search for key pieces of your phrase proposal. Did you find them? The wording you find has been considered by several experts and might be worth using. If you found phrases containing such key pieces but prefer your own wording, include a reference to the phrases you found in your proposal as well as a justification on why you think your proposal is needed in addition to the existing phrases. Please use the web form in the EuPhrac browser tool to send your proposal. You will receive an email with a link to an online system to follow the status of your proposal.

The EuPhraC and ESCom working groups welcome your proposals!

Phrase proposal evaluation

After a formal check to assess whether the proposed phrase meets the phrase rules as provided in this guidance document, the proposal is then reviewed by a section responsible person. The decision to accept or reject a phrase depends on the phrase rules mentioned above as well as a comparison with existing phrases and legislation / guidance documents. The section responsible person will take a preliminary decision to accept or reject the phrase or to put the phrase up for discussion within the working group. This preliminary decision will be published in the EuPhraC online system. This system allows for commenting on the proposed phrase and on the preliminary decision.

In order to enhance the quality of the phrase evaluation process, EuPhraC/ESCom has implemented the so-called '4 eye-principle' in the process. This means that next to the evaluation of phrase proposals by a section responsible persons, the proposal is also evaluated by the heads of the EuPhraC and ESCom working groups and can be reviewed by other members of the working groups. When there is no agreement on the decision to accept or reject a phrase proposal, the phrase proposal will be put up for discussion in the EuPhraC or ESCom working group meetings to arrive at a final decision. If the final decision is rejection, a justification will be given.

The discussion and final outcome is also published in the EuPhraC online system without naming the phrase author. This ensures a quick and streamlined process for accepting a larger number of phrase submissions from a broad audience, while still keeping the phrase library consistent and avoiding multiple entries of the same content.

EuPhraC

ESCom

