

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

	Procedure: Overview of rules and criteria for well-formed EuPhraC/ESCom standard phrases No. 13-1 Revision: 03 Location: Brussels / Berlin Page: 1 of 20
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APPROVED BY

DATE

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CHANGE HISTORY

Revision	Description of Change	Effective
01	Initial Release with basic rules for well-formed standard phrases	April 2014
02	Update of example section	June 2016
03	New paragraph on criteria for the assignment of phrase IDs	December 2017

Responsibility:

EuPhraC Working Group
ESCom Working Group

1. Introduction

„EuPhraC“ is the acronym for the 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 Exposure Scenarios (ES) for extended SDS as foreseen by the REACH Regulation 1907/2006 as well as being compliant with IUCLID software (International Uniform Chemical Information Database) by offering special data fields required for registration.

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

The ESCom package 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 package consists of 2 components:

- ESCom XML standard, the XML format;
- ESCom standard phrase catalogue, covering the standard phrases for exposure scenario content.

The development of the ESCom standard has been initiated by Cefic and DUCC (Downstream Users of Chemicals Coordination group). 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 standard phrase catalogue with the objective to develop standard phrases for Exposure Scenarios. Initial versions of both ESCom XML as well as ES standard phrase catalogue have been published in May 2011 (version 1.1), with updates in 2011-2014. A fully revised ESCom XML and ES standard phrase catalogue (version 2.0) has been released in July 2015. Version 2.1 has been published in January 2016; biannual releases of the catalogue will be scheduled in future.

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 Phrase Working Group develops and maintains the phrase library, which is then shared and integrated into the EuPhraC library.

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 website also provides more documents and information on the current status. Currently, a CSV and an HTML format are available for download. Adding an XML format as well as options for partial access to subsets of the library, such as the exposure scenario, are under discussion. Please consult the documentation of your IT system or ask your IT provider vendor how to import phrase data into your system. Note that both for downloading and using EuPhraC and the ESCom XML a license agreement has to be signed.

The phrase download contains a list of single phrases. The EuPhraC tree structure and thus the „structure code“ provides information on parts of the Safety Data Sheet where a phrase might be appropriate. In the ESCom standard phrase catalogue every phrase is mapped to the specific attribute of the XML where it can be used, thereby avoiding the misuse of phrases. The catalogue metadata also provide information on the part of the ES where the phrase can be used.

Both the ESCom standard phrase catalogue (Excel format) and XML can be downloaded from the Cefic website (<http://www.cefic.org/industry-support/Implementing-reach/escom>) and from the eSDScom website (<http://www.esdscom.eu>). The ESCom Standard Phrase Catalogue is also available for download as a Chesar import file (ECHA Chemical Safety Assessment and Report tool). This enables the user to import the Phrase Library into Chesar.

Working Group Contacts

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

BDI and Cefic have agreed to set up a common framework for the cooperation regarding the addition to EuPhraC of standard phrases for exposure scenarios coming from the ESCom standard phrases catalogue, as prepared by sector associations, consortia and individual companies. The current Cefic representative in this WG is Dook Noij (Dow Benelux).

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)

2. Structure of Standard Phrases

The main purpose of using standard phrases is the efficient and consistent creation of harmonized text paragraphs for Safety Data Sheets and Exposure Scenarios, which will ease electronic data transfer of standardised phrases between suppliers and their customers and also facilitates the translation of documents into other languages.

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

Note that all content in the following paragraphs applies to both EuPhraC and ESCOM, unless otherwise stated.

2.1 Rules on the Content of standard phrases

Phrase proposals basically emerge from new guidelines/regulations as well as from practice.

- Check if your phrase proposal is relevant and generic enough for being considered.
- Make sure your phrase is not yet covered. Please verify the catalogue before proposing a new phrase. Some of the existing phrases, alone or combined, may convey the same information.
- Be consistent. Do not use similar wording for the same meaning (instead use the same).

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

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

Are you able to explain the difference? Is the difference important to note?

- Do not write situational 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.

Example: *Identify potential areas for indirect skin contact and wear gloves (tested to EN374) if hand contact with substance likely.*

This combination of phrases can easily be split up in separate standard phrases:

Identify potential areas for indirect skin contact.

Wear gloves (tested to EN374) if hand contact with substance is likely.

- Phrases should be as generic as possible; try to avoid phrases that are specific in nature (substance or product or activity related).

Examples of what should NOT be done (*in general, the phrases hereunder are too specific*):

Coating agents for fertilizers

Sulphosuccinamates

Manufacture of polymers from monomers in continuous and batch processes. Including production, re-cycling and recovery, degassing, discharging, reactor maintenance and immediate polymer product formation (i.e. compounding, pelletisation, product off-gassing)

- Phrases should contain the presence (not the absence) of a condition. There is no value in communicating that a condition does not apply.

Examples:

Wastewater emission controls are not applicable as there is no direct release to wastewater.

Hand protection not applicable.

No air emission controls required; required removal efficiency is 0%.

- Phrases should, as much as possible, specify an instruction that can be implemented by the recipient of the ES, rather than a condition to avoid.

Examples: Do not use product for more than is a better wording than Avoid using product more than.

- OC/RMM (Operational Conditions/Risk Management Measures) type phrases have to be directly related to the exposure assessment (quantitatively or qualitatively) in the CSR; this also applies to PPE type phrases (Personal Protective Equipment). If this condition is not met, these phrases are AGPA type phrases (Additional Good Practice Advice). Note that AGPA phrases have to be very generic to be included in the catalogue. Examples of such phrases are:

Avoid frequent contact with substance.

Use container to collect drips.

Clear spills immediately.

- RMM/PPE type phrases should not contain information on the efficiency of the RMM. This should be specified in a separate phrase. An example of a phrase combining the RMM and the efficiency in one sentence is:

Local exhaust ventilation - efficiency of at least

This phrase should be split into two:

Phrase 1: Local exhaust ventilation

Phrase 2: efficiency of at least

Note: for each compartment or exposure route efficiency phrases are available in the catalogue.

Example:

Inhalation – minimum efficiency of

- Ensure that per PPE type of phrase only one form of PPE is specified.

Examples of incorrect combinations are:

Wear suitable gloves (tested to EN374) and eye protection.

Wear suitable gloves (tested to EN374), coverall and eye protection.

2.2 Rules on the Structure of standard phrases

Any phrase library is based on explicit or implicit assumptions on how the user (who may be a human or a software system) works with the phrases.

- 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), or 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.

For well-formed phrases, please use consistent punctuation, abbreviations and measurement units:

Only grammatically complete sentences end with a dot.

Example grammatically complete sentence:

Sample via a closed loop or other system to avoid exposure.

- 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 (such as “alternatively”) to connect phrases. Instead, a phrase “alternatively” should be used.*

Do not mix single words / list elements with complete sentences; instead, clearly separate both parts with an introductory phrase for the list elements.

- 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 phrases that can be part of ES titles, use descriptors and contributing scenarios do not end with punctuation. Examples:

Use descriptor: manufacture of fine chemicals

Header: Product (article) characteristics

Contributing scenario: casting operations

List items: industrial uses

continuous release

- Phrase fragments are 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”.
- Full sentences and headers should start with a capital.
- Within a phrase, upper case letters are only used where required.

Example: only for “REACH” and “Regulation”, not for “exposure assessment” or for “risk characterization”.

Example: 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.

- For phrases including abbreviations and/or acronyms the full text of the abbreviation/acronym should be provided (acronyms@esdscom.eu), if not yet listed in the public EUPhraC abbreviation/acronym list.
- Citation of norms: For CEN member states, European norms “EN” or “EN ISO” need to be localized (nationally adapted) and prefixed accordingly, such as “DIN EN” or “DIN EN ISO” in Germany. Nevertheless, if referenced in the Phrase Catalogue the national prefix should be

omitted and only "EN" resp. "EN ISO" be cited, as superordinate standard that will be unambiguously identified. The national prefixes cannot be allocated 1:1 to a specific language, such as for Belgium or Switzerland. The national documents, nevertheless, would have to include the country code.

- References to standards (92/69/V, C.4-D ?) should not be included in method phrases such as OECD 301F, but would need a separate reference phrase. If a specific standard is still applicable or has been replaced can be searched free of charge on the www.BEUTH.de website.
- There is a length limitation in every software system. EuPhraC and ESCom have an internal limitation of 1000 characters per phrase (including spaces), 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.

3. Phrase parameters

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

Use in well ventilated areas only.

After contact with molten product, cool skin area rapidly with cold water.

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 x hours.*“

For example, some P(recautionary) phrases require modification depending on the substance / mixture they are applied to.

3.1 Phrase parameters for EuPhraC SDS phrases

- **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.

These are the facts on the 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.

Example: *Store at temperatures not exceeding...°C/...°F.*

- Any parameter can be a number, standard text (e.g. “EN 374”) or a phrase.
- 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.
- Due to varying word order types in diverse languages, the parameter(s) may appear in another position of the phrase, but parameters do always appear in the same order.

Example: *Precautionary statement P422:*

English: Store contents under

German: Inhalt in/unter ... aufbewahren.

Whereas English puts the verb in sentence-initial position, German applies a verb-final construction. This leads to different positions of the parameters in the phrase. From a crosslingual perspective, languages vary from one another much more in word order than English and German.

3.2 Phrase parameters for ECom ES phrases

What has been mentioned above for EuPhraC SDS phrases is in general also valid for ECom phrases for the exposure scenario for communication. However, there are a few differences:

- ECom 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 activities involving exposure for more than [parameter].

- Phrases with parameters might contain up to 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:

Amount per use: < 10 tonnes per year

qualifier: “<”; value: “10”; unit: “tonnes per year”

4. Additional rules on phrase translations

If you provide translations for your phrases (note: only English to German!), please bear in mind these additional translation hints in order to achieve well-formed basic pairs for interlingual alignment:

- Phrases are used in IT systems which have a limited storage length and/or layout space. Make sure that translated length and original length are similar.
- The phrase structure must be identical in all languages. The number and order of parameters (in EuPhraC phrases) and the number of explanatory insertions (parenthesis) must be the same in all languages. You cannot shuffle parameters, omit or add them, or have a parameter follow as the next phrase if it is marked as a parameter in the original wording.

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 (lokal)

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.

- The same level of specificity should be applied. For example, do not pair a chemical name with a trivial name:

English "Amines, C12-14 tert-alkyl, C8-20 alkyl phosphates"

not with German "Phosphorsäureester, Aminsatz"

but instead with "C12-14 tert-Alkylamine, C8-20 Alkylphosphate"

- Choose similar structures and grammatical constructions.

Preferably match pairs of terms, chunks, lists, acronyms, full sentences.

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 the units.

- Acronyms/abbreviations shall only be used if there are matching acronyms/abbreviations in all European languages unless the English acronym is cross-lingually used as standard expression such as STOT, DNEL/DMEL or PNEC

Example:

English phrase: municipal STP

German phrase: kommunale Kläranlage (STP)

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

5. Assignment of phrase IDs

EuPhraC/ESCom phrases are identified by unique phrase IDs consisting of 10/11-digit numerical codes. Whenever a new phrase is coined, a phrase ID will be created and assigned to this particular phrase. In case the wording of an existing phrase is slightly adjusted (such as in spelling corrections, consistency adaptations or minor rephrasing), the changes are applied whereas the phrase ID remains unchanged. See 2 scenarios in which the phrase ID is preserved:

16118191200: “Wear solely goggles.” -> “Wear safety goggles.” (correction of odd wording)

16085183102: “Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plants) RMMs.” -> “Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plants) RMMs” (final punctuation mark removed)

When a change applies to a phrase containing an original code and/or regulative content, a new phrase including ID needs to be generated. The old phrase is kept due to its validity in transitional periods or for archiving purposes. Replacements of codes for H and P statement lead to new phrase IDs, e.g.:

9294221508: [P234] “Keep only in original container.” (6th ATP of Regulation (EC) 1272/2008)

16180114800: [P234] “Keep only in original packaging. (8th ATP of Regulation (EC) 1272/2008)

Currently both codes are valid, but after the transition phase ending in January 2018, phrase ID 9294221508 will be inactivated in the phrase catalogue and replaced by phrase ID 16180114800.

6. 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/ESCom development. This openness requires all contributors to follow the rules set out below; otherwise the proposal will be declined.

6.1 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://draft.euphrac.eu> after you have specified an appropriate place in the EuPhraC/ESCom structure for your phrase candidate.

As a first step, please use the tool to search the catalogue for identical or similar phrases (for example by searching for key pieces of your phrase proposal). The wording you may find then has been considered by several experts and might be worth using. If you found similar phrases but prefer your own wording, include a reference to them as well as a justification on why your proposal is needed in addition to the existing phrases. Alternatively to sending a new proposal, a change request of the existing phrase can be submitted via “Send change phrase proposal”. Furthermore, a user may request to delete existing phrases.

Where you do not identify possibly suitable phrases at all, carefully consider the phrase rules stated in this guidance before submitting your phrase in the webtool. Please indicate to which (sub)section the phrase should be added and provide a detailed justification for including it in the catalogue. Phrase proposals without localisation in the catalogue structure cannot be submitted; phrase candidates without sufficient justification will not be accepted for review.

For ESCom phrases, the tool includes the possibility to assign relevant metadata, or the XML attribute(s) to which the phrase should be mapped. Please provide this information as comprehensive as possible. This will enable the ESCom phrase group to better understand the context of your proposal and take a well-founded decision.

The following information is mandatory for ESCom phrases:

- Insert the wording of the new phrase in the field “Phrase proposal”.
- A statement why the phrase is being proposed in the field “Justification/source”; otherwise the proposal cannot be sent. This applies both to EuPhraC and ESCom phrase proposals.
- The relevant ES section(s)

1 = Title of the Exposure Scenario

2= Contributing Scenario

3 = Exposure Estimation

4= Guidance to Downstream User

- XML attributes (optionally, maximum number of 3 attributes); for an overview about the range of attributes, see Annex 1 to this Guidance.
- For section 2 phrases:
 - The relevant target group(s): environment, worker, consumer; otherwise the phrase cannot be submitted
 - The relevant subheader of the contributing scenario (e.g. AFD (Amounts, Frequency, Duration); PC (Product Characteristics), TOM (Technical/Organizational measures); STP

(Sewage Treatment Plant); PPE (Personal Protective Equipment); Waste; OOC (Other Operational Conditions); AGPA (Additional Good Practice Advice); a default field “unassigned” has been added in case there is no particular subheader specified.

- Insert your name and your email address.

Please use the web form in the EuPhrac browser tool to submit your proposal. You will receive an email with a link to an online discussion forum to follow the status of your proposal.

Both EuPhraC and ESCom working groups welcome your proposals!

6.2 Phrase proposal evaluation

After a formal assessment whether the phrase rules as outlined in the Guidance are met, the proposal is then reviewed for its content by an expert appointed as section responsible person. This person will take a preliminary decision to accept or reject the phrase or to flag it for discussion within the working group. This preliminary status will be published in the online forum, for further commenting the proposed phrase and the preliminary decision.

In order to enhance the quality of the phrase evaluation process, EuPhraC/ESCom has implemented the so-called ‘4 eyes-principle’. After the first expert review, the proposal is further evaluated by the heads of the EuPhraC and ESCom working groups and can be reviewed by other WG members as well. When there is no agreement on acceptance or rejection, 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 phrase is rejected, a justification will be given.

The discussion and final outcome is also published in the EuPhraC forum without naming the phrase author. This ensures a streamlined process for dealing with phrase submissions from a broad audience, while still keeping the phrase library consistent.

The steps described above are illustrated in the flow-chart in Figure 1.

Figure 1: Workflow of the phrase proposal evaluation process

Annex 1: List of XML-attributes

ExposureScenario.ExposureScenarioName

ExposureScenario.ExposureScenarioName.Phrase

ExposureScenario.LifeCycleStage

ExposureScenario.LifeCycleStage.Phrase

ExposureScenario.MainUserGroup

ExposureScenario.MainUserGroup.Phrase

ExposureScenario.SectorOfUse

ExposureScenario.SectorOfUse.Phrase

ExposureScenario.MarketInformationProductCategory

ExposureScenario.MarketInformationProductCategory.Phrase

ExposureScenario.MarketInformationArticleCategory

ExposureScenario.MarketInformationArticleCategory.Phrase

ExposureScenarioStructuredShortTitle.SSTMarketInformationProductCategory

ExposureScenarioStructuredShortTitle.SSTMarketInformationProductCategoryCodes

ExposureScenarioStructuredShortTitle.SSTMarketInformationArticleCategory

ExposureScenarioStructuredShortTitle.SSTMarketInformationArticleCategoryCodes

ExposureScenarioStructuredShortTitle.SSTMarketInformationSectorOfUse

ExposureScenarioStructuredShortTitle.SSTMarketInformationSectorOfUseCodes

ExposureScenarioStructuredShortTitle.SSTAdditionalInformation

Resulting Structured Short Title

ContributingScenarioEnvironmentForWorkerUse.ContributingScenarioName

ContributingScenarioEnvironmentForWorkerUse.ContributingScenarioName.Phrase

ContributingScenarioEnvironmentForConsumerUse.ContributingScenarioName

ContributingScenarioEnvironmentForConsumerUse.ContributingScenarioName.Phrase

ContributingScenarioEnvironmentForWorkerUse.EnvironmentalreleaseCategory

ContributingScenarioEnvironmentForWorkerUse.EnvironmentalreleaseCategory.Phrase

ContributingScenarioEnvironmentForConsumerUse.EnvironmentalreleaseCategory

ContributingScenarioEnvironmentForConsumerUse.EnvironmentalreleaseCategory.Phrase

ReleaseDischargePrevention.Measure

ReleaseDischargePrevention.Measure.MeasurePhrase
ReleaseDischargePrevention.Measure.EffectivenessAirInPercent
ReleaseDischargePrevention.Measure.EffectivenessSoilInPercent
ReleaseDischargePrevention.Measure.EffectivenessWaterInPercent
MsafeEnvironment.Msafe
MsafeEnvironment.Msafe.Value.Unit
MsafeEnvironment.CriticalCompartmentForMsafe
MsafeEnvironment.CriticalCompartmentForMsafe.Phrase
STPConditions.STPType
STPConditions.STPType.MeasurePhrase
STPConditions.STPType.EffectivenessInPercent
STPConditions.STPTypeAdditionalInformation
STPConditions.STPTypeAdditionalInformation.Phrase
STPConditions.SludgeTreatment
STPConditions.SludgeTreatment.Phrase
STPConditions.STPEffluentinM3perDay
OtherConditionsEnvironment.DilutionFactorCoastal
OtherConditionsEnvironment.DilutionFactorRiver
OtherConditionsEnvironment.FlowRateRcvSurfWater
OtherConditionsEnvironment.FlowRateRcvSurfWater.Value.Unit
OtherConditionsEnvironment.OutdoorIndoorActivity
OtherConditionsEnvironment.OutdoorIndoorActivity.Phrase
FrequencyDurationEnvironment.ExposureType
FrequencyDurationEnvironment.ExposureType.Phrase
FrequencyDurationEnvironment.EmissionDaysPerYear
WasteRelatedMeasures.WasteTreatment
WasteRelatedMeasures.WasteTreatment.MeasurePhrase
WasteRelatedMeasures.WasteTreatment.EffectivenessWasteInPercent
AdditionalConditionsMeasuresEnvironment.ConditionMeasure
AdditionalConditionsMeasuresEnvironment.ConditionMeasure.ConditionPhrase
AdditionalConditionsMeasuresEnvironment.ConditionMeasure.NumericValue.Unit

AdditionalConditionsMeasuresEnvironment.ConditionMeasure.EffectivenessAirInPercent
AdditionalConditionsMeasuresEnvironment.ConditionMeasure.EffectivenessSoilInPercent
AdditionalConditionsMeasuresEnvironment.ConditionMeasure.EffectivenessWaterInPercent
AdditionalConditionsMeasuresEnvironment.ConditionMeasure.EffectivenessWasteInPercent
ReleaseEstimationEnvironment.ReleaseEstimationMethod
ReleaseEstimationEnvironment.ReleaseEstimationMethod.Phrase
ReleaseEstimationEnvironment.ReleaseRoute
ReleaseEstimationEnvironment.ReleaseRoute.Phrase
ReleaseEstimationEnvironment.ReleaseRate
ReleaseEstimationEnvironment.ReleaseRate.Value.Unit
ExposureEstimationEnvironment.Compartment
ExposureEstimationEnvironment.Compartment.Phrase
ExposureEstimationEnvironment.ExposureLevel
ExposureEstimationEnvironment.ExposureLevel.value.Unit
ExposureEstimationEnvironment.CalculationMethod
ExposureEstimationEnvironment.CalculationMethod.Phrase
ExposureEstimationEnvironment.RCR
ContributingScenarioWorker.ContributingScenarioName
ContributingScenarioWorker.ContributingScenarioName.Phrase
ContributingScenarioWorker.ProcessCategory
ContributingScenarioWorker.ProcessCategory.Phrase
TechnicalOrganisationalMeasuresWorkers.Measure
TechnicalOrganisationalMeasuresWorkers.Measure.MeasurePhrase
TechnicalOrganisationalMeasuresWorkers.Measure.EffectivenessDermalInPercent
TechnicalOrganisationalMeasuresWorkers.Measure.EffectivenessInhalationInPercent
PersonalProtectionEquipmentAndMeasuresWorkers.Measure
PersonalProtectionEquipmentAndMeasuresWorkers.Measure.MeasurePhrase
PersonalProtectionEquipmentAndMeasuresWorkers.Measure.EffectivenessDermalInPercent
PersonalProtectionEquipmentAndMeasuresWorkers.Measure.EffectivenessInhalationInPercent
OtherConditionsWorker.OutdoorIndoorActivity
OtherConditionsWorker.OutdoorIndoorActivity.Phrase

OtherConditionsWorker.ProfessionalIndustrialIndicator
OtherConditionsWorker.ProfessionalIndustrialIndicator.Phrase
OtherConditionsWorker.RoomSize
OtherConditionsWorker.RoomSize.ConditionPhrase
OtherConditionsWorker.RoomSize.Value.Unit
OtherConditionsWorker.TemperatureInCelsius
OtherConditionsWorker.TemperatureInCelsius.ConditionPhrase
OtherConditionsWorker.VentilationRate
OtherConditionsWorker.VentilationRate.ConditionPhrase
OtherConditionsWorker.VentilationRate.Value.Unit
HumanFactors.BodyPartsExposed
HumanFactors.BodyPartsExposed.Phrase
ContributingScenarioConsumer.ContributingScenarioName
ContributingScenarioConsumer.ContributingScenarioName.Phrase
ContributingScenarioConsumer.ArticleCategory
ContributingScenarioConsumer.ArticleCategory.Phrase
ContributingScenarioConsumer.ArticleSubCategory
ContributingScenarioConsumer.ArticleSubCategory.Phrase
ContributingScenarioConsumer.ProductCategory
ContributingScenarioConsumer.ProductCategory.Phrase
ContributingScenarioConsumer.ProductSubCategory
ContributingScenarioConsumer.ProductSubCategory.Phrase
ConsumerProtection.Measure
ConsumerProtection.Measure.Phrase
OtherConditionsConsumer.OutdoorIndoorActivity
OtherConditionsConsumer.OutdoorIndoorActivity.Phrase
OtherConditionsConsumer.RoomSize
OtherConditionsConsumer.RoomSize.ConditionPhrase
OtherConditionsConsumer.RoomSize.Value.Unit
OtherConditionsConsumer.TemperatureInCelsius
OtherConditionsConsumer.TemperatureInCelsius.Phrase

OtherConditionsConsumer.VentilationCondition
OtherConditionsConsumer.VentilationCondition.ConditionPhrase
OtherConditionsConsumer.VentilationCondition.Value.Unit
FrequencyDurationHH.Duration
FrequencyDurationHH.Duration.ConditionPhrase
FrequencyDurationHH.Duration.Value.Unit
FrequencyDurationHH.Frequency
FrequencyDurationHH.Frequency.ConditionPhrase
FrequencyDurationHH.Frequency.Value.Unit
AdditionalConditionsMeasuresHH.ConditionMeasure
AdditionalConditionsMeasuresHH.ConditionMeasure.ConditionMeasure
AdditionalConditionsMeasuresHH.ConditionMeasure.NumericValue.Unit
AdditionalConditionsMeasuresHH.ConditionMeasure.EffectivenessDermalInPercent
AdditionalConditionsMeasuresHH.ConditionMeasure.EffectivenessInhalationInPercent
ExposureEstimationHH.ExposureRoute
ExposureEstimationHH.ExposureRoute.Phrase
ExposureEstimationHH.HealthEffect
ExposureEstimationHH.HealthEffect.Phrase
ExposureEstimationHH.ShortLongTermIndicator
ExposureEstimationHH.ShortLongTermIndicator.Phrase
ExposureEstimationHH.ExposureLevel
ExposureEstimationHH.ExposureLevel.Value.Unit
ExposureEstimationHH.CalculationMethod
ExposureEstimationHH.CalculationMethod.Phrase
ExposureEstimationHH.RCR
ExposureEstimationAdditionalDetails.AdditionalDetails
ExposureEstimationAdditionalDetails.AdditionalDetails.Phrase
ProductArticleCharacteristics.VaporPressure
ProductArticleCharacteristics.VaporPressure.ConditionPhrase
ProductArticleCharacteristics.VaporPressure.Value.Unit
ProductArticleCharacteristics.PreparationConcentration

ProductArticleCharacteristics.PreparationConcentration.ConditionPhrase
ProductArticleCharacteristics.PreparationConcentration.Value.Unit
ProductArticleCharacteristics.PhysicalForm
ProductArticleCharacteristics.PhysicalForm.Phrase
AmountsofUse.UseAmount
AmountsofUse.UseAmount.ConditionPhrase
AmountsofUse.UseAmount.Value.Unit
AdditionalGoodPracticeAdvice.AdditionalGoodPracticeAdvice
AdditionalGoodPracticeAdvice.AdditionalGoodPracticeAdvice.Phrase
GuidanceToDU.GuidanceText
GuidanceToDU.GuidanceText.Phrase
ScalingToolDetails.ScalingTool
ScalingToolDetails.ScalingTool.Phrase
ScalingToolDetails.ScalingInstructions
ScalingToolDetails.ScalingInstructions.Phrase
ScalingToolWebLink
Not Mapped to XML