9th Meeting of the Exchange Network on Exposure Scenarios (ENES9)

5-6 November 2015

Programme item: A.2 and A.3

SPERC format in Chesar 3

This document presents the format for SPERC which will be supported by Chesar 3. Specific Environmental Release Categories (SPERCs) contain information on the environmental release factors for a use and the related conditions of use. They are usually generated by downstream user sector organisations for the uses relevant to their membership. SPERCs are meant to support registrants under REACH as input information to their Chemical Safety Assessment (CSA).

Chesar will include three major functionalities for the SPERCs:

- A sector organization wishing to make their SPERCs available in a harmonized format can use Chesar to enter the relevant information and to

    o generate SPERC files in XML format that can be imported by registrants who want to base their assessment on SPERC information

    o generate a word document with the SPERC information

- A registrant wanting to use SPERCs can import SPERC files from sector organizations having made available SPERCs.

- Carry out a CSA based on SPERC information and generate corresponding CSR information and ES for communication.
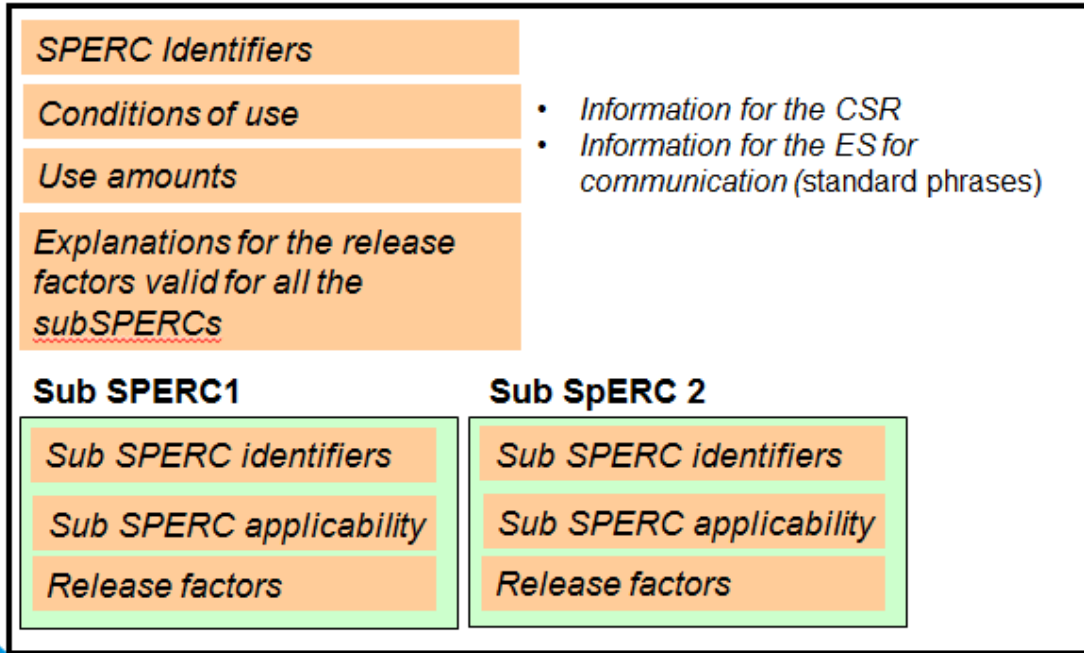

The format presented here is an update of the Chesar 2 SPERC format. It is based on the format proposed in the report on "Assessment of reliability of SPERC" (http://echa.europa.eu/web/guest/publications/technical-scientific-reports). It has been discussed with the CSR/ES Roadmap action 2.4 group.

One SPERC corresponds to one set of conditions of use. The release factors (and their justifications) are provided in one or more sub-SPERCs as they may depend on the substance properties/functions. The data structure of a SPERC is illustrated below

Structure of SPERC and sub-SPERCs

SPERC

| SPERC Identifiers |
| Conditions of use |
| Use amounts |
| Explanations for the release factors valid for all the subSPERCs |

- Information for the CSR
- Information for the ES for communication (standard phrases)

Sub SPERC1

| Sub SPERC identifiers |
| Sub SPERC applicability |
| Release factors |

Sub SpERC 2

| Sub SPERC identifiers |
| Sub SPERC applicability |
| Release factors |

In Chesar the SPERC information can be entered, processed and reported using specific user interface and report format. For simplicity, the attached table provides an overview on the content-fields foreseen in Chesar for SPERC information and an explanation on the type of information contained.

SPERC

Name of the field	Explanation of content
SPERC identifiers	This block of Information is meant to help in understanding and selecting the right PpERC for the activity to be assessed.
SPERC title	The SpERC title may correspond to the name of the contributing activity to which the SPERC is applicable
SPERC code	
SPERC scope	Applicability domain of the SPERC may be reported if particular boundaries exist in terms of substance properties or product types that can be covered by the SPERC
Description of activities/processes	Description of operations, processes and equipment covered by the SPERC (including if cleaning and maintenance are covered) focussed on environmentally relevant aspects
Process steps where main emissions occur	The factors driving the releases of the substances from the technical process can be described here. Each of those drivers should be addressed in the conditions of use described in later fields.
Activity in rigorously contained system with minimisation of release to the environment (*Check box***)**	Flag to identify SPERCs covering activities in rigorously contained system with minimisation of release to the environment. This may be particularly relevant for non intermediates. If this flag is set, the information will be conveyed to IUCLID6. This will be used by the authorities during IT screening for potential deprioritisation from further regulatory action. When setting this flag the corresponding conditions of use have to be described in the condition of use section.
Life cycle stage	One life cycle stage selected from picklist : • Manufacture • Formulation and re-packing • Use at industrial sites • Widespread use by professional workers • Consumer uses • Service life (workers at site) • Service life (widespread workers) • Service life (Consumers)
Chemical product category	Multi select from PC list (see R12 update)
Sector of use	Multi select from SU list (see R12 update)
Use in (*Only for widespread uses*):	Picklist : Agriculture/Non agriculture This selection serves to identify the <type of soil> to which releases occur, in order to apply an appropriate exposure estimation method.

Link to website	Provide a link to website where SPERC (and its background document if any) can be found
Conditions of use	This block of information is meant to describe the conditions of use (driving the releases). This may include for example: • Location of use (indoor / outdoor / indoor and outdoor) • Degree of containment of the main process • Type of process (e.g. dry process / water based process / organic solvent based process…) • Measures to achieve efficient use of chemicals (e.g. automatisation, smart rinsing techniques) and thus preventing emissions or losses to waste. • Conditions of equipment cleaning • Conditions of other auxiliary processes(loading, unloading, sampling) if relevant for release • On site treatment of releases • Connection to municipal STP
Repeat the blocks below for each condition of use	
<Condition of use > Explanation for the CSR: For ES for communication:	Describe the condition of use. More detailed explanations can be provided for the CSR. For the ES for communication a standard phrase may be selected from ESCom catalogue. When no phrase available yet in the catalogue the proposed phrase can be reported here.
<Condition of use > [Effectiveness <Route>: <effectiveness value>][1] Explanation for the CSR: Explanation for effectiveness: For ES for communication:	When risk management measures are part of the SPERC, an effectiveness may be reported, including explanations for the CSR (if needed) on how it has been set. Note that the effectiveness is already accounted for in the release factors of the SPERC.
Use amounts	This block of information is meant to support the assessor in making appropriate assumptions on a typical amount of substance used locally.
For uses at industrial site **Daily use amount at a site (tonnes/day):** Explanation for CSR:	The daily use amount at the site corresponds to a typical amount of a substance used daily at an industrial site. This field may be left empty in the SPERC, and explanations may be provided to support registrants to define such amount, for example providing mixture amount for the use, typical fractions of components in the mixture, etc. If a value is provided in the SpERC it will be reported as the default value in the registrant's ES for the "daily use amount at the site". This field can be later modified by the assessor.
Extrapolation factor for annual use amount: Explanation for CSR:	This extrapolation factor will serve to calculate the annual use amount at the site from the daily use amount at the site.. Such factor will not be communicated: only the daily and annual amount will be communicated.
For widespread uses **Local fraction for the use:** *default* $5.5*10^{-7}$	This fraction (for estimating a local widespread daily use amount from a EU tonnage for the use) is by default $5.5*10^{-7}$ as defined in

---

[1] Effectiveness is for RMM only

Explanation for the CSR:	guidance R16. It may be decreased by a factor of up to 4 in specific cases (to be well justified) where there is hardly any variation of use in time or space.
Explanations for the release factors valid for all the sub-SPERCs	This block of information contains explanation on the release factors valid for all the sub-SPERCs.
Releases to water:	A short summary explaining the calculation of the release factor, indicating the method of estimation (e.g. industry survey, experimental data, OECD ESD etc.) including reference to the publically available more detailed explanation (such as the SpERC background document) is expected.
Releases to air:	as for water
Releases to <type of soil>:	as for water The type of soil depends on the selection in the identifier "use in: agriculture/non agriculture"). It is usually "industrial soil" but it may be "agricultural soil" for widespread uses.
Releases to waste:	Provide explanation on the calculation of the release factor and make reference to the source. Further explanations may be provided in the SpERC background document. Explanations may include e.g. which types of waste occur from processing, from RMM or from equipment cleaning.

subSPERC

One or more sub-SPERCs are created per SPERC, depending on whether release factors may be substance properties/function dependant or not.

Repeat the following section for each sub-SpERC:

Name of the field	Explanation of content
Sub-SPERC identifiers	This block of information I meant to support the assessor in selecting release factors matching the phys-chem properties or technical function of the substance to be assessed.
Sub-SPERC code	If only one Sub-SPERC is contained in the SPERC the code of the sub-SPERC should be equal to the SPERC code
Sub-SPERC name	Short name for the assessor to support the selection of the proper sub-SPERC. This may include information on the scope of the Sub-SPERC If only one sub-SPERC is contained in the SpERC this may be the SPERC name.
Sub-SPERC applicability	
Environmental release category	Single value from ERC list (see R12). The ERC selection depends on the life cycle stage
Vapour pressure range (Pa): <Min> to <Max>	Range of Vp for which the sub-SpERC is applicable. When the release does not depend on the Vp, leave the field empty
Water solubility range (mg/L): <Min> to <Max>	Range of WS for which the sub-SpERC is applicable. When the release does not depend on the WS, leave the field empty
Partition coefficient (Log Kow): <Min> to <Max>	Range of log Kow for which the sub-SpERC is applicable. When the release does not depend on the log Kow, leave the field empty
Additional information on applicability	. Any additional characteristic may be reported here to enable

domain	proper selection of the sub-SPERC.

Release factors	
Releases to water (%)	
Explanations specific to the sub-SPERC	Unless all necessary information is already provided in the explanations valid for all the sub-SPERCs, provide a short summary of the explanation on the calculation of the release factor, indicating the method of estimation (e.g. industry survey, experimental data, OECD ESD etc.), and make reference to the publically available more detailed explanation (such as the SpERC background document).
Releases to air (%)	
Explanations specific to the sub-SPERC	As for water
Releases to <type of soil> (%)	
Explanations specific to the sub-SPERC	As for water
Releases to waste (%)	
Explanations specific to the sub-SPERC	As for water

Administrative information *(will be set by the system in Chesar)*	
Author	
SPERC modification date	