

## Chesar introductory training package

The following training material has been specifically prepared to support the 2018 Chesar training Stakeholders' day event (29 January 2018). This training package is an extract of the Chesar basic training material. Its purpose is to provide an overview of some of the most commonly used basic functionalities of Chesar, from the upload of a IUCLID substance to the generation of its chemical safety report and exposure scenario for communication. If you would like to deepen your knowledge on Chesar and follow a complete 2 day Chesar basic training course, please contact us at [chesar@echa.europa.eu](mailto:chesar@echa.europa.eu) or check the supporting material available on the Chesar website (<https://chesar.echa.europa.eu/support/manuals-tutorials>).

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# 1. Communication with IUCLID and scope of assessment

Number of exercises: 4 (+1 optional)

## Background information

In this set of exercises you will learn how to properly import in Chesar the information needed from a IUCLID substance, which substance information is imported, how Chesar displays (and interprets) such information and, finally, how Chesar manages the updates in case the substance properties in IUCLID change. Particular attention will be paid to the scope of exposure assessment (and synchronisation with IUCLID).

Chesar needs to be set up to be ready to run a chemical safety assessment. Moreover, to run Chesar, a IUCLID 6 substance (or dossier) is needed<sup>1</sup>. The tight connection with IUCLID is essential to ensure consistency between the fate properties and hazard assessment conclusions available in IUCLID and the exposure assessment to be performed in Chesar.

At the end of this set of exercises you will have your Chesar application set up and a Chesar substance synchronised with IUCLID and ready to be assessed.

## Exercises

Prerequisites for this set of exercises:

- IUCLID 6.2 is up and running
  - Username: *SuperUser*, Password: *root*
- Chesar 3.3 is up and running
  - Username: *admin*, Password: *admin*

### Exercise 1: Set up Chesar before starting to use it – user setting and import of standard phrase catalogue

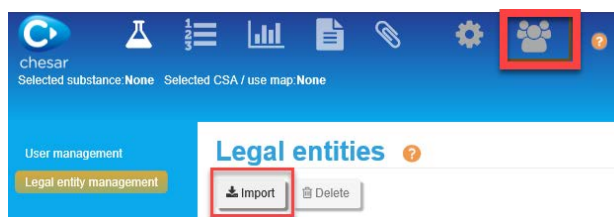
Chesar 3 needs to be set up in order to be fully functional.

A legal entity needs to be imported in Chesar and assigned to a user account (username) in order to be able to create Chesar library items (condition of use templates, SPERCs, SWEDs and SCEDs) and trace the author of the items.

It is recommended to upload the standard phrase catalogue, ECom, in order to facilitate the exchange of information in the exposure scenario (ES) annexed to the Safety Data Sheet (SDS). ECom is a catalogue of standard phrases developed by the European chemical industry which is available in Chesar format (<http://www.cefic.org/Industry-support/Implementing-reach/escom/>).

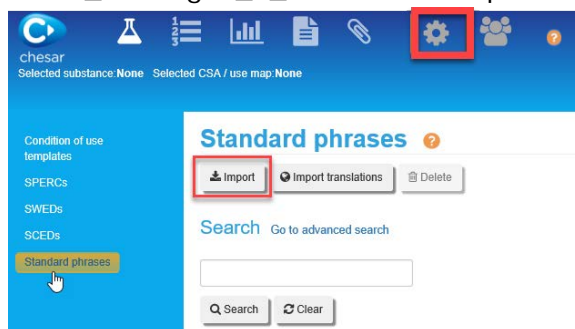
### Steps

1. Import a legal entity in Chesar:
  - a) Go to box 7 and click the “Legal entity management” tab
  - b) Click the import button
  - c) Select the “Training\_LE\_ECHA” and import it



<sup>1</sup> Chesar can also run with a Chesar 3 file

2. Assign the legal entity to your user account:
  - d) In box 7 click the "User management" tab
  - e) Click on the username "admin" which is the user account created by default
  - f) Go to the legal entity field and select the "Training\_LE\_ECHA" legal entity
3. Import the standard phrase catalogue in Chesar
  - g) Go to box 6 and click on the "Standard phrases" tab
  - h) Click the import button
  - i) Select the "ESCom\_Phrase\_Catalogue\_3\_1.chr3" and import it



- j) In the dialogue that appears, select the option "Overwrite all existing"

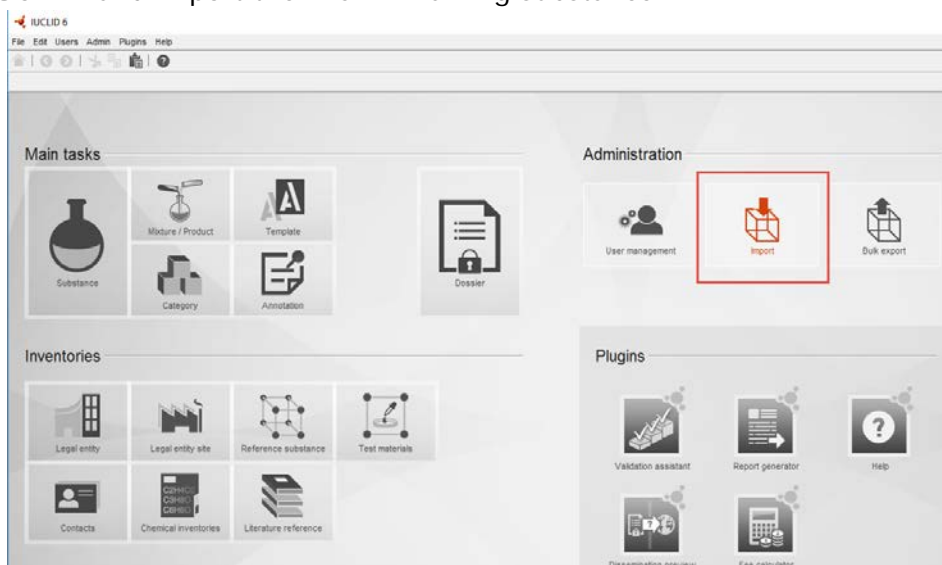
## Exercise 2: Import a substance from IUCLID via web service

To be able to import substances from IUCLID, to export uses from Chesar to IUCLID section 3.5 and to generate a full CSR document, IUCLID 6 and Chesar 3 need to be connected. In this testing environment (where desktop installations of Chesar 3 and IUCLID 6.2 are used), there is no need to perform any actions to set up the connection between Chesar and IUCLID as the default settings are already available in Chesar 3 .

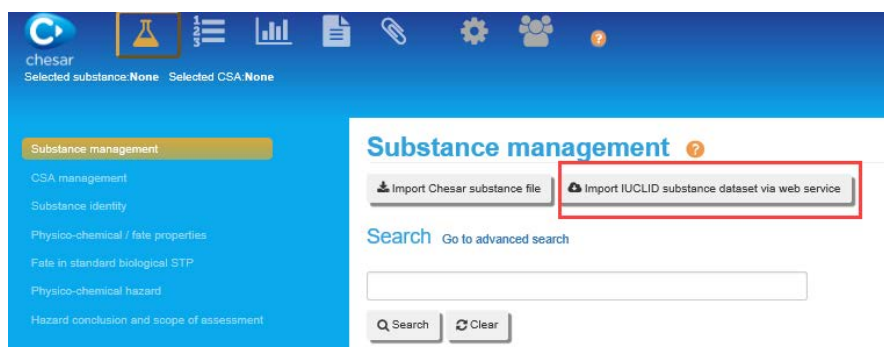
Once the connection is established, to import a substance from IUCLID you need to perform a query in IUCLID from Chesar.


### Steps

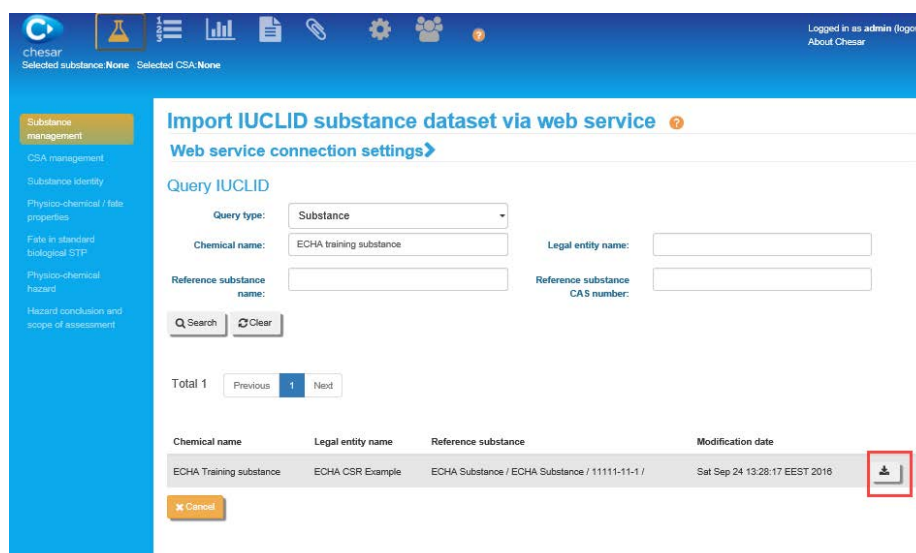
1. Go to **IUCLID** and import the "ECHA Training substance"



2. Go back to **Chesar** in box 1, in the "Substance management" tab and click the "Import IUCLID substance dataset via web service" button

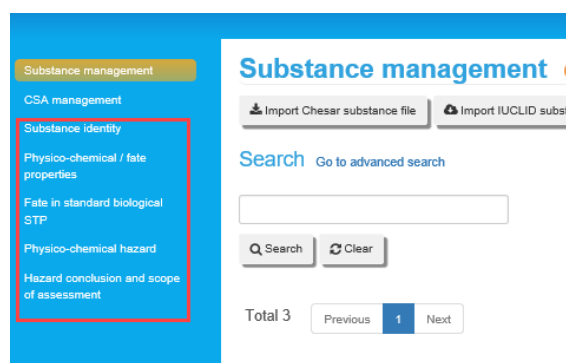


3. To find the “ECHA Training substance” enter the following information under “Query IUCLID”:
  - Query type: substance
  - In the Chemical name: enter the name of the substance (or part of it)
4. Click on the search button
5. Import the “ECHA Training substance” in Chesar from the list of matching hits by clicking on the  icon




### Exercise 3: Review the information imported from IUCLID

The physico-chemical and fate properties as well as the hazard conclusions imported from IUCLID are available in the last five tabs of box 1. Look at the physical-chemical and fate properties and the hazard profile of the “ECHA Training substance” by going through the various tabs available in box 1.



## Exercise 4: Review the scope of assessment

The scope of this exercise is to understand the link between the hazard conclusions reported in section 6 Ecotoxicological Information and section 7 Toxicological information of IUCLID (e.g. PNECs, DNELs) and the scope of assessment in Chesar.

For each hazard conclusion, the explanations entered in IUCLID are displayed in the Chesar notes when clicking the  icon. For each environmental compartment and for each route and type of effect for workers and consumers, a "Risk characterisation type" is displayed based on the information entered in the relevant sections of IUCLID.

The "risk characterisation" type can be one of the following:

- Quantitative – if a PNEC/DNEL has been derived.
- Qualitative – if no PNEC/DNEL could be derived because insufficient data is available, or no emission/exposure is assumed, or no threshold can be derived for a specific human health hazard. In these cases a qualitative argumentation is expected in order to minimise the releases (for environment) or to ensure that the conditions of use in place control the risks.
- Not needed – if no hazard has been identified. In this case Chesar will not trigger any exposure assessment/risk characterisation.
- Semi-quantitative – for workers and consumers a semi-quantitative risk characterisation is triggered when a DMEL has been derived. In this case the exposure should be below the threshold and a qualitative argumentation is needed to demonstrate that the conditions of use in place are appropriate to minimise the risk.

If needed, concentration limits for workers/consumers (dermal local effect and eyes) and DNELs for infrequent uses for consumers can be defined in the "Hazard conclusion and scope of assessment" tab.

For some cases the assessment of man via the environment may not be required (e.g. for low tonnage if the substance is not classified for long-term effects for human health, see guidance R.16 on environmental exposure assessment). In this case the checkbox "Man via environment assessment not needed" should be checked and an explanation is to be provided.

## Optional exercise

### Exercise 5: Synchronisation between IUCLID and Chesar

*If a substance property is updated in IUCLID 6, the assessor should update it also in Chesar. To facilitate the synchronisation and to ensure the maximum re-usability of a previously made assessment, Chesar:*

- *displays the differences between IUCLID and Chesar once the substance is about to be re-imported*
- *adapts and/or recalculates the exposure estimates and RCR when they are derived with the built-in exposure estimation tools (EUSES and ECETOC TRA workers or consumers) in the existing assessments when relevant, based on the changed properties*

### Steps

1. *In **IUCLID**, in section 7 of the ECHA Training Substance, change the Worker/hazard via inhalation/long term exposure DNEL value from 24.7 to 20 and save the change*
2. *Re-import the substance in **Chesar** by repeating the steps described in exercise 2*
3. *Read carefully the message triggered by Chesar: the information on the substance properties will be updated and the recalculation (if any) will be performed*

## 2. Use description

Number of exercises: 4

### Background information

In this set of exercises, you will learn how to describe the uses of a substance in a life cycle tree structure. A life cycle tree structure enables the description of uses for all the life cycle stages, to order them and, if needed, to create “branches”, i.e. specific supply chains. The life cycle stages in Chesar are the following:

- *Manufacture*
- *Formulation and re-packing*
- *Use at industrial sites*
- *Widespread use by professional workers*
- *Consumer use*
- *Service life (consumer)*
- *Service life (worker at industrial sites)*
- *Service life (professional worker)*

In addition to the 8 life cycle stages, three further elements are part of the life cycle tree:

- *Manufacture/Import*, which is the starting node and serves as the basis for calculation of the balance of the tonnage to be assessed in the CSA.
- *Market sector* facilitates the structuring of the life cycle tree as it enables grouping of uses under it.
- *Contributing activities* covering the description of the different activities contributing to one use. For each use being described, at least one contributing activity for workers or consumers and one contributing activity for the environment needs to be defined.

More information about the use description can be found in ECHA Guidance R.12<sup>2</sup>.

At the end of this set of exercises you will have the “ECHA Training substance” with a life cycle tree for the training illustrative CSA, which will be assessed in the following exercises.

### Exercises

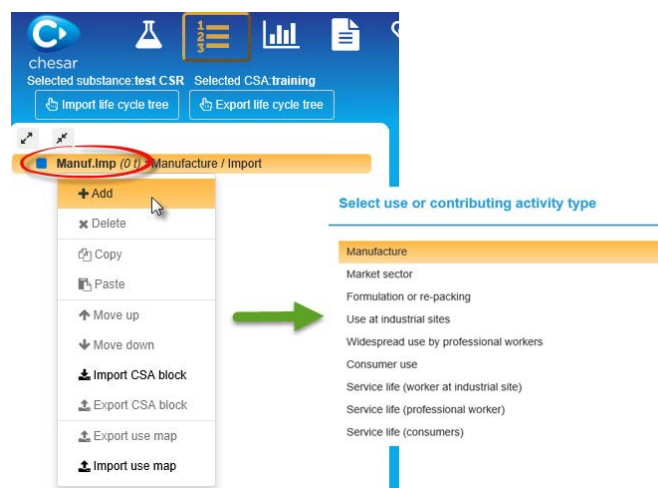
#### Exercise 1: Create a “use” for manufacture - manually enter own site information


##### Steps

1. In box 2, create a “Manufacture” use under the Manufacture/Import node by right-clicking on it

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<sup>2</sup> European Chemicals Agency (2015). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.12: Use description (December 2015). Accessible from: [https://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r12\\_en.pdf](https://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf)



2. Enter the following own site information, using standard phrases where possible:
  - *Name*: Manufacture (for 'Manufacture' there is a standard phrase; You can switch to the entry of standard phrases by clicking on the double arrow icon on the right of the text box , then put the cursor in the box by clicking in the bottom part of the box and search for the appropriate standard phrase by starting to type the phrase you need. The matching search results will be shown and you can then select the relevant phrase)
  - *Further description of manufacturing process*: Multistage continuous process in solvent at ambient temperature; closed process, no water involved; waste treatment onsite
  - *Tonnage manufactured*: 320 t/y

Once you have added the above information click the save button.

3. Add contributing activities to the newly created manufacturing use by right-clicking on the use. Define relevant contributing activities using the following information:
  - **Environmental** contributing activity
    - *Name*: Manufacture, Closed systems, Dry process (no water used in process) (these three phrases are available in the standard phrase catalogue)
    - *Environmental Release Category (ERC)*: ERC 1

Once you have added the information needed click the save button.

- **Workers** contributing activity
  - *Name*: Closed fully automated manufacturing process (no standard phrase is available, so this should be entered as free text)
  - *Process Category (PROC)*: PROC 1

Once you have added the information needed click the save button.

- **Workers** contributing activity
  - *Name*: Maintenance and cleaning operation (check whether there is a standard phrase, otherwise use free text)
  - *Process Category (PROC)*: PROC 28

Once you have added the information needed click on the save button.

## Exercise 2: Provide general information on uses to be assessed in the CSA

The substance may also be imported. Both the manufactured tonnage and the imported tonnage should be assessed. The amount of substance directly exported or used as intermediate under strictly controlled conditions (registered under Article 17 or 18) is exempted from further assessment. Chesar supports the reporting of such information as well as providing an overview on the uses which will then be printed in the introduction of chapter 9 of the CSR.

### Steps

1. Enter information on the starting node of the tree (Manufacture/Import):

- Set the tonnages imported, directly exported and used as intermediate under strictly controlled conditions to 0 as it is assumed that no imports and exports take place and that the substance is not used as an intermediate
- Explanation for CSR section 9.0.1: *Substance is used as an additive for inks and coatings. It functions as a co-emulsifier, defoamer and wetting agent. Mixtures for industrial and professional applications contain the substance in concentrations up to 2%. Formulated products for consumer uses contain the substance up to 1%. The substance is manufactured in a closed system. It is formulated into coatings and inks in batch processes. It is used in a wide variety of industrial applications, both open and closed, such as component labelling, spraying of larger pieces in spray booths, application by roller/brush or dipping. The substance is also used for painting both by professionals and by consumers.*
- The manufactured tonnage is read-only and it is filled with the tonnage defined in the "Manufacture uses" (in this case it is filled with 320 tonnes/year as entered in the previous exercise)

Once you have added the aforementioned information click the save button.

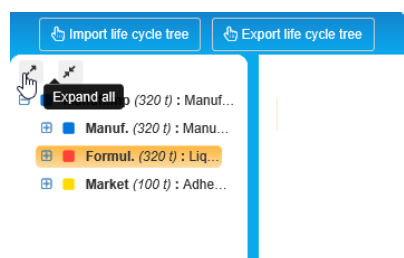
**Note:** The assessed tonnage is calculated only once you press the save button and corresponds to the manufactured and imported tonnage minus the tonnage directly exported and used as intermediate.

### Exercise 3: Import a life cycle tree

In the previous exercise some of the functionalities that box 2 offers to the assessor have been illustrated. To create a clean basis to work with, a life cycle tree will be imported and used. When you import the life cycle tree you will overwrite the one you started to create (during exercise 1) with a completely new life cycle tree.

#### Steps:

1. Go to the tool bar at the top of the screen and click "Import life cycle tree" to import the "LifecycleTree\_TrainingSubstance"
2. Check that all uses and contributing activities have been imported by clicking on the "Expand all" button



**Note:** A life cycle tree consists of a complete list of uses for a given substance. When it is exported or imported it does not carry any information on assessment.

Please note that beside the import of a life cycle tree, Chesar also offers the possibility to import a CSA block, which can cover one or several uses and may already contain exposure information. More details can be found in the box 2 help text embedded in the application.



## Exercise 4: Create and describe a market sector – import a use map

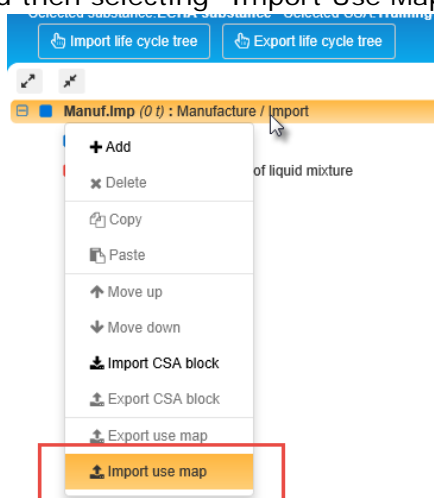
A use map, developed only for the purpose of this training<sup>3</sup>, is available for the end-uses of coatings and inks.

Once imported it is up to the registrant to:

- Select the relevant uses for his substance
- Adapt some information related to his substance, for example the tonnage and the technical function

### Steps

1. Import the use map “UseMap\_Training\_Coating” under the Manufacture / Import node by right-clicking on the node and then selecting “Import Use Map”.




2. The use map “Training\_Coatings and Inks” is now visible in the life cycle tree. Move the imported use map one stage down, below the formulation, to reflect the hierarchical use pattern of the substance; it is first formulated and then placed to the market. You can move it by right-clicking on the node and then selecting “Move down”
3. Adapt the tonnage in the use map for this specific assessment. From the 320 tonnes manufactured and formulated, only 200 tonnes go into the paint market. The rest goes to the lubricant market (out of the scope of this exercise)
4. Delete the use “Industrial use of powdered coatings”, as this is not a relevant use for the training substance, which is an additive with technical functions for liquid products
5. Adapt the generic information per use to reflect this particular assessment
  - In this example only the use at industrial sites (Industrial use of liquid coatings and inks) will be adapted:
    - *Tonnage*: 100 t/y; half of the substance goes to industrial uses
    - *Technical function of the substance during use*:
      - Defoamer, included in the default list
      - Other, included in the default list. Then manually specify the other functions in the text box “Other technical function description” which appears once you have selected “Other” from the picklist; co-emulsifier and wetting agent

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<sup>3</sup> Note that this use map is not complete

**Note:** A use map contains uses and contributing activities with their related exposure assessment inputs, i.e. SPERCs, SCEDs and SWEDs.

It is important to remember that:

- Use maps are being developed by sectors and, if available, should be the preferred approach
- Use maps can be found on the following ECHA webpage: <https://echa.europa.eu/cs-res-roadmap/use-maps/use-maps-library>. Some use maps in Chesar format are already available on the website and some others will become available very soon
- For each use you may check the “Additional information from use map” field which may provide useful information from the use map developer with regard to the appropriateness of the use for your substance, as well as information which may help you complete your use description
- To import an updated version of a use map which you have previously imported in your life cycle tree, right-click on the use map node which was created when you previously imported the use map and select . The system will then show you the differences between the previous version and the new version of the use map and will allow you to generate a report of the differences in an .rtf format by clicking on the “Generate report” button
- Completing the tonnage at use map level (i.e. going to the uses covered by the use map as a whole) is only suggested to help you to distribute the tonnage. The tonnage entered at the use map level will not be used in the assessment as the assessment is based on the tonnages entered at use level in box 2 and at contributing scenario level in box 3.

### 3. Environmental exposure assessment

Number of exercises: 5 (+ 1 optional)

#### Background information

In this set of exercises, you will learn how to use the Chesar tool to generate environmental exposure datasets with the integrated environmental exposure estimation tool, EUSES<sup>4</sup>.

The default exposure datasets created with EUSES are based on default release factors linked to the assigned Environmental Release Category (ERC) and default conditions of use (e.g. STP settings). More information about the default release factors for the various ERCs can be found in ECHA Guidance R.16<sup>5</sup> (page 74). The default release factors are conservative and therefore in general overestimate the releases. Besides this, they are generic and do not necessarily reflect the actual use situation. Therefore, you can describe the relevant conditions of use and refine the release estimates based on available information, specifically you can enter:

- Release factors described in **Specific Environmental Release Categories (SPERCs)** made available by sector associations (included in a use map or imported in the Chesar library in box 6)
- **Release factors** derived for a specific sector (for instance as described in OECD Exposure Scenario Documents, ESD) in absence of available SPERCs
- Site-specific information on **measured releases** and applicable risk management measures (RMM) to the registrant's own site


Once the assessment has been conducted, the assessment approach used to demonstrate safe use can be summarised in the respective fields in the CSR template in box 4 of Chesar.

At the end of this exercise, you will have a Chesar substance with environmental exposure datasets generated with EUSES and you will have described your assessment approach in the CSR template. Some contributing scenarios will have been refined by adapting the relevant conditions of use. However, as not all contributing scenarios will be refined as part of this exercise, not all environmental contributing activities in the life cycle tree will show safe use.

#### Exercises

##### Exercise 1: Default environmental exposure datasets

##### Steps

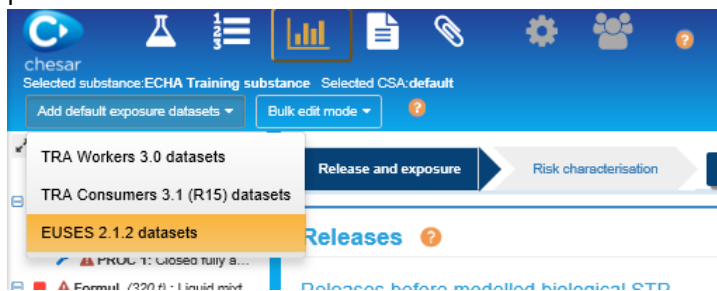
1. Go to box 3
2. Expand the whole life cycle tree 
3. Check one of the contributing scenarios (e.g. ERC 1) to see what information Chesar has generated: conditions of use, releases and exposure estimates. Default exposure datasets have been created for all environmental contributing scenarios in your life cycle tree (except for those coming from the use map), using the ERC release factors for estimating the releases and EUSES for estimating the exposure. This can be seen under the "Exposure estimates" section
4. Click "Add default exposure datasets" and select "EUSES 2.1.2 datasets" to add environmental exposure datasets also to all contributing scenarios coming from the use

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<sup>4</sup> More information about EUSES, including documentation, can be found at <https://ec.europa.eu/jrc/en/scientific-tool/european-union-system-evaluation-substances>.

<sup>5</sup> European Chemicals Agency (2016). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.16: Environmental exposure assessment. (February 2016). Accessible from: [https://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r16\\_en.pdf](https://echa.europa.eu/documents/10162/13632/information_requirements_r16_en.pdf)

map in one go, using the ERC release factors for estimating the release and EUSES for estimating the exposure



5. Check for which contributing scenarios the risks are controlled (i.e.  $RCR < 1$ , green checkmark ✓) and which scenarios need refinement (red exclamation mark ⚠)

**Note:** Default environmental exposure datasets are automatically created when the user creates an environmental contributing activity in the life cycle. They are not automatically created when environmental contributing activities are imported as part of a use map.

## Exercise 2: Refinement of contributing scenario for Manufacture (ERC 1) – use of site specific information available to the registrant (own site)

For the manufacturing stage information on processes and risk management measures (RMM) driving the release to the environment are well known and can be used to justify the releases.

The following scenario is to be considered (instructions on how to incorporate this scenario are included in the steps below):

- Whole EU tonnage manufactured in one site
- Releases to water from the site (before biological STP) are measured (concentration and flow rate datasets available) and are equal to 0.1 kg/day
- In the biological STP to which the site is connected, the sludge is sent to an incinerator


### Steps

1. In box 3, open the environmental contributing scenario for manufacturing (ERC 1)
2. Customise the built-in conditions of use to reflect the actual situation. Set:
  - “Biological STP” to “Site specific”
  - “Application of the STP sludge to agricultural soil” to “No” (there is no need to change any of the other STP settings)

**Note:** In general, the possibility to adapt the biological STP settings by setting the STP to site specific should only be used for own uses. For downstream uses, the biological STP setting is expected to be the default one unless specific information from specific DU sites is available. It is possible to deviate from the default fractions emitted to the environment from the STP calculated by EUSES but only if available information exists.

3. In the “Releases” section, refine the release factors/rate and provide explanation using the following information:
  - The measured release rate to water is equal to 0.1 kg/day based on the available concentration and flow rate datasets (e.g. release rate is based on 90 percentile of the measured releases rates from the site). Set the “Estimation method” to “Measured release rate”, enter a name for the method (e.g. “On-site data”) in the field appearing beside and enter the value for the local release rate (0.1). Add the explanation in the relevant justification field

- For release to air, detailed information is lacking and therefore, as a conservative assumption for the initial release, the ERC release factor of 5% is kept
- For release to soil the ERC release factor of 0.01% is kept
- Set the release to waste from the process to a conservative 6%. The explanation for this is as follows: In absence of information it is assumed that the ERC release factor to water (6%) represents a maximum loss of the substance (as releases to air are accounted for and no release to waste is generated from air treatment)

The explanations should be entered in the relevant justification fields 

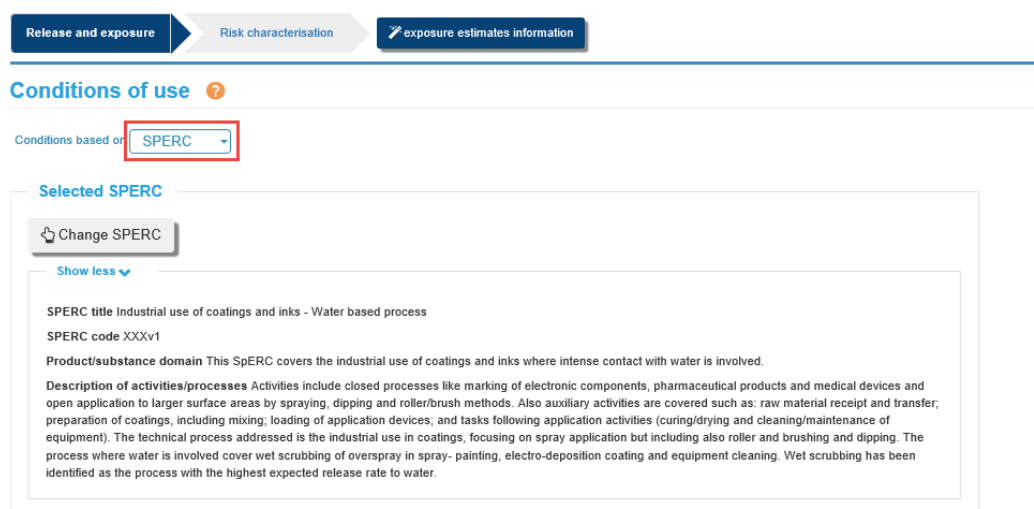
Once you have incorporated the above mentioned conditions of use and release factors by providing relevant justifications, check whether the risks are controlled (RCR<1) in the refined exposure dataset (green checkmark).

### Exercise 3: Refinement of contributing scenario for Uses at industrial sites (ERC 5) – use of information as described in SPERC

For the contributing activity in this life cycle stage, a relevant SPERC is available.

#### Steps

1. Select the environmental CS “Industrial application of coatings and inks. Water-based process (ERC 5)”
2. You will see that a SPERC has already been selected for this CS, as this use was part of the imported use map.



The screenshot shows a software interface with three main sections: 'Release and exposure', 'Risk characterisation', and 'exposure estimates information'. The 'Conditions of use' section is active, showing a dropdown menu set to 'SPERC'. Below this, the 'Selected SPERC' details are shown:

- Change SPERC** button
- Show less** dropdown
- SPERC title** Industrial use of coatings and inks - Water based process
- SPERC code** XXXv1
- Product/substance domain** This SpERC covers the industrial use of coatings and inks where intense contact with water is involved.
- Description of activities/processes** Activities include closed processes like marking of electronic components, pharmaceutical products and medical devices and open application to larger surface areas by spraying, dipping and roller/brush methods. Also auxiliary activities are covered such as: raw material receipt and transfer; preparation of coatings, including mixing; loading of application devices; and tasks following application activities (curing/drying and cleaning/maintenance of equipment). The technical process addressed is the industrial use in coatings, focusing on spray application but including also roller and brushing and dipping. The process where water is involved cover wet scrubbing of overspray in spray- painting, electro-deposition coating and equipment cleaning. Wet scrubbing has been identified as the process with the highest expected release rate to water.

3. Chesar automatically selects the sub-SPERC that matches the substance properties. The sub-SPERC release factors are shown in the “Releases” section with the indication “SPERC based” as estimation method and they cannot be modified. Check how the conditions of use and release fractions from the SPERC are included in the assessment based on the automatic selection of sub-SPERC
4. Modify the use amounts as follows:
  - *Daily use amount at site*: 0.02 tonnes/day (according to the text in the explanation field, entered by the sector association who made the SPERC, according to their market knowledge the maximum amount of coating used at a single site is 1 tonne/day. The maximum concentration of ECHA substance in the coating is equal to 2%, therefore the daily tonnage for ECHA substance can be set to 0.02 tonnes/day)
  - *Annual use amount at site*: 4 tonnes/year (note that this is updated automatically when the daily use amount at site has been changed once you

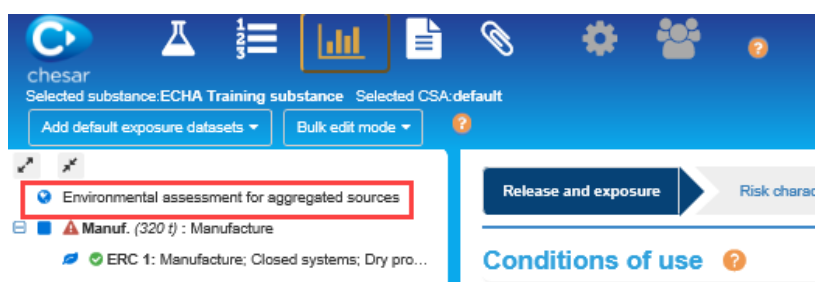
- leave that field. It is calculated by multiplying the daily use amount at site by the number of use days per year which has been specified as part of the SPERC)
5. Check whether the risks are controlled (green checkmark)

**Note:** Only SPERCs relevant for the contributing scenario to be assessed are made available for selection.

If a use map is not yet available, SPERCs can also be assigned here after they have been imported into the library in box 6.

#### Exercise 4: Review and assessment for aggregated uses

After the refinements have been done, you need to check that the “Environmental assessment for aggregated sources” is controlled as well. For this short training, for one of the environmental contributing scenarios the risks are not yet controlled. However, do have a look at the regional assessment and the aggregated assessment for widespread uses.



**Note:** Measured data can be added if reliable monitoring data is available (e.g. regional PECs for metals).

#### Exercise 5: Reporting a summary of assessment approach for environment

In box 4, you can have a look what the CSR will look like for the contributing scenarios you have worked on. This is also where you should provide a (short) summary of the assessment you performed for the environment (9.0.3 for the overall comments, and when needed, separately for the exposure scenarios in sections 9.x). Moreover, if you are aware of situations where several uses are combined at a site, you should include an explanation on the risks for the site in section 10.2.4.

##### Steps

1. Have a look at the preview of the CSR for the contributing scenarios worked on during the previous exercises (9.1.1 and 9.4.1)
2. Fill in the respective free text fields in the CSR template view. For example using the following information for general section 9.0.3.4 (Comments on assessment approach for the environment):

“A quantitative assessment was carried out for all environmental protection targets except for air and for predators, for which no hazard had been identified. The release estimation for the industrial scenarios is based on the following methods:

- Site related information (see manufacturing ES)
- Specific Environmental Release Categories (SPERCs) (see general industrial use of coatings and inks ES)

Release estimation for widespread uses (namely professional and consumer uses) was based on default ERC release factors. Potential risks to environmental compartments were evaluated using fate and transport model EUSES 2.1 and release module. The relevant OC and RMM (reported in the ES) driving the release factors (reported in corresponding exposure estimation section) reflect typical conditions of use applied at manufacturing site or by downstream users.”

**Note:** When copying and pasting from an external document the formatting may not be kept

when being transferred to the CSR.

Remember that the information provided for a specific exposure scenario in 9.x is not meant to replace the list of CoUs, which need to be reported and described in the conditions of use section.

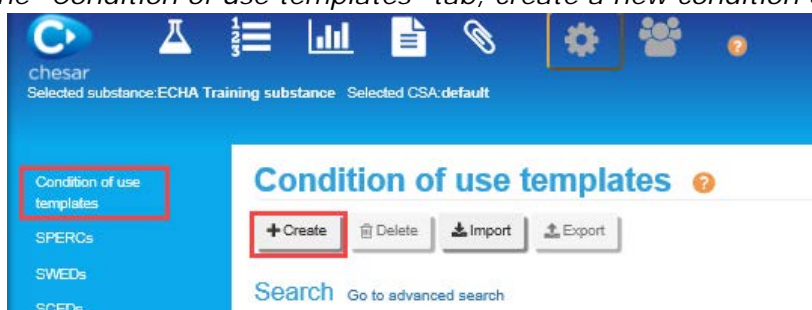
## Optional exercise

### Exercise 6: Further refinement of contributing scenario for Manufacture (ERC 1) – adding conditions of use

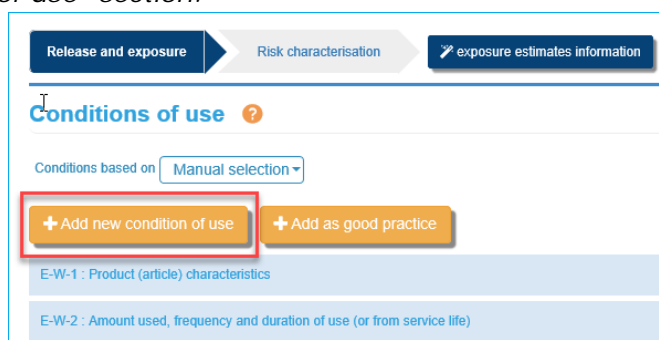
For the manufacturing stage worked on in exercise 2, additional information is available which can be incorporated: releases to air from the site are sent to an “on site incineration unit” with an effectiveness of at least 99%. This risk management measure (RMM) can be created and incorporated as a condition of use.

#### Steps

1. In box 6, in the “Condition of use templates” tab, create a new condition of use



2. Create “Exhaust air incineration (on site)” using the following information:
  - Type: RMM with effectiveness
  - Target group: Environment
  - ES subheading for worker activities (see Annex): E-W-3: Technical and organisational conditions and measures
  - Exposure / Release routes: Air
  - Name: Exhaust air incineration (on site)
  - Air effectiveness: Default: 99, Min: 98, Max: 99.9
  - Value relevant by default for SDS ES: yes
  - Default description for SDS ES: Exhaust air incineration (on site) - minimum efficiency of  $\${value}$   $\${unit}$
3. Activate the newly created condition of use template, by clicking the “Activate” button
4. In box 3, open the environmental contributing scenario for manufacturing (ERC 1)
5. Add the newly created condition of use by clicking “Add new condition of use” at the top of the “Conditions of use” section.



Select the relevant condition of use by checking the box in front of it, then click on “Add condition(s) of use” at the top of the screen.

^

### Add new condition of use

**Search** [Go to advanced search](#)

Total 13 Previous 1 2 Next

<input type="checkbox"/> ^ Label	Description
<input type="checkbox"/> Annual application rate	The maximum annual application rate in kg in products applied directly to soil
<input type="checkbox"/> Collect water from equipment/container cleaning as waste	
<input type="checkbox"/> Dilution factor to marine water	EUSES Determinant
<input type="checkbox"/> Discharge to	EUSES Determinant
<input checked="" type="checkbox"/> Exhaust air incineration (on site)	

*Note that the final release to air is now calculated by Chesar taking into account the effectiveness (99%) of the exhaust air incineration. This can be seen in the "Releases" section – the release factor before on-site RMM is still 5% but the release factor after on-site RMM is now 0.05%.*



## 4. Worker exposure assessment

Number of exercises: 4 (+ 1 optional)

### Background information

In this set of exercises, you will learn how to use Chesar to carry out worker exposure assessment. Exposure assessment is to be carried out for each contributing activity for workers specified for all the workers uses in the life cycle tree.

Ideally you have imported a use map with SWEDs (Specific Workers Exposure Determinants) which describe all the relevant conditions of use for workers contributing activities. In that case you should carry out exposure estimation and risk characterisation based on the available information. The current exercises illustrate situations where such information is either available in the form of a use map or not.

As a starting point you will use the Tier 1 **ECETOC TRA exposure estimation tool** that is integrated in Chesar 3. For more information on the ECETOC TRA tool and its applicability, please refer to ECHA Guidance R.14<sup>6</sup> and the ECETOC Technical Report No. 114<sup>7</sup> and 124<sup>8</sup>.

While assessing a substance in Chesar you can adapt (refine) the default conditions of use for each contributing scenario to align them with the actual operational conditions and risk management measures that apply for your situation and/or to the situations down in the supply chain. This will affect the exposure estimates generated by ECETOC TRA. The conditions of use can be adapted manually per contributing scenario, or by using the **bulk mode functionality** to add, edit or delete conditions of use for multiple contributing scenarios at the same time.

For some contributing scenarios the use of ECETOC TRA may not be applicable (e.g. for gaseous in liquid mixtures) or not appropriate (e.g. when after refinement based on the actual conditions of use the exposure estimates are still above the DNELs which leads to a Risk Characterisation Ratio above 1). In these cases, exposure estimates can be obtained with another exposure estimation tool, or alternatively measured data can be used.

For effects for which no threshold can be derived (e.g. local effects) and therefore no quantitative assessment can be performed, a **qualitative risk characterisation**, based on appropriate conditions of use is required. Here the bulk mode functionality can also be used, as it provides the possibility to:

- Edit a condition of use for several contributing activities (e.g. percentage of substance in mixture for all uses after formulation may be low, potentially below the classification limit, and could be changed for all contributing activities in one go)
- Add a condition of use for several contributing activities (e.g. eye protection, which may be required for a number of contributing activities for an eye irritant substance if the system is not closed and if the concentration of the substance in mixture is above the classification limit)

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<sup>6</sup> European Chemicals Agency (2012). Guidance on information requirements and chemical safety assessment Chapter R.14: Occupational exposure estimation. Reference: ECHA-2010-G-09-EN. Publ.date: November 2012. Accessible from: [http://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r14\\_en.pdf](http://echa.europa.eu/documents/10162/13632/information_requirements_r14_en.pdf)

<sup>7</sup> ECETOC AISBL (2012). ECETOC TRA version 3: Background and Rationale for the Improvements. Reference (print): ISSN-0773-8072-114. Publ.date: July 2012. Accessible from: <http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC-TR-114-ECETOC-TRA-v3-Background-rationale-for-the-improvements.pdf>

<sup>8</sup> ECETOC AISBL (2014). Addendum to TR114: Technical Basis for the TRA v3.1. Reference (print): ISSN-0773-8072-124. Publ.date: June 2014. Accessible from: [http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC\\_TR\\_124.pdf](http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC_TR_124.pdf)

- Provide a justification (qualitative risk characterisation) that the risk is controlled in one go for several contributing activities (and several routes of exposure)

Once the assessment has been conducted, the **assessment approach** used to demonstrate safe use can be summarised in the respective fields in the CSR template in box 4 of Chesar.

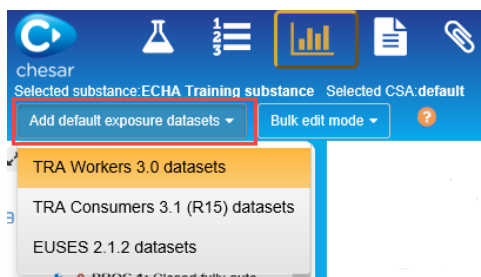
At the end of this exercise, you will have assessed most of the workers contributing scenarios of the ECHA Training substance using exposure estimates obtained with ECETOC TRA worker and measured data. Some contributing scenarios will have been refined by adapting the relevant conditions of use. However, as not all contributing scenarios will be refined as part of this exercise and the qualitative assessment may not be done (as this is an optional exercise), not all worker contributing activities in the life cycle tree will show safe use.

## Exercises

### Exercise 1: Create default ECETOC TRA workers exposure datasets

#### Steps

1. In box 3, with the life cycle tree fully expanded, add default ECETOC TRA exposure datasets to all worker contributing scenarios in your life cycle tree.



For each worker contributing scenario an ECETOC TRA exposure dataset is generated containing default TRA workers conditions of use and exposure estimates

2. Check one of the contributing scenarios (e.g. PROC 1) to see what information Chesar has generated: **conditions of use** and **exposure estimates**


**Note:** Existing “TRA workers” datasets are not overwritten when adding default exposure datasets.

### Exercise 2: Edit conditions of use in a given contributing scenario

Refine one of the worker contributing scenarios by adapting the conditions of use to reflect conditions of use relevant for that use based on information from downstream.

#### Steps:


1. Go to the “Receiving and charging of the substance (PROC 8b)” contributing scenario under Formulation and modify the following conditions of use:
  - Duration of activity: 1 hour/day
  - Dermal protection: Yes (chemically resistant gloves conforming to EN374 and (other) appropriate dermal protection)

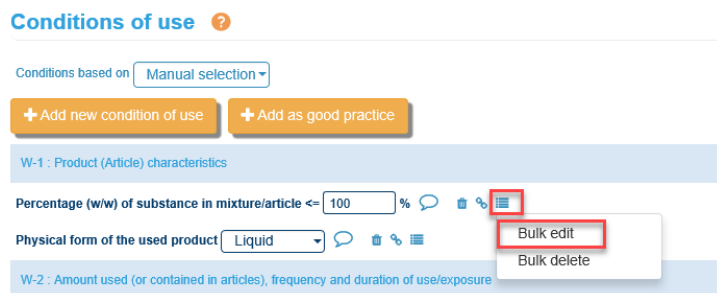
**Note:** Additional explanation for modifying specific conditions of use can be given when needed by clicking the  icon.

### Exercise 3: Edit currently existing conditions of use for several contributing scenarios in one go using the “bulk mode” functionality

After formulation, the concentration of the substance in the mixtures is 2%. This information can be changed in one go for all contributing scenarios for all end uses, as well as for the contributing scenarios for formulation after the mixing step.

#### Steps:

1. Select one worker contributing scenario where the “Percentage (w/w) of substance in mixture/article” should be set to 2 % (e.g. “Transfer of substance or mixture (charging/discharging) at non dedicated facilities (PROC 8a)” under Formulation, which come right after the mixing step)
2. Without changing the percentage first, click on the “bulk actions” icon (  ) and then on the “Bulk edit” option to edit the value



3. In the next view, all contributing scenarios with the same value for the “percentage (w/w) of substance in mixture/article” are pre-selected. Only select the relevant ones after the formulation (see screenshot below), for which you want to set the percentage to 2%. Change the value, enter an explanation and save



4. Click on “Leave bulk edit mode” at the top of the screen
5. Verify that the condition of use is correctly displayed in one of the relevant contributing scenarios where the default value has been changed.

### Exercise 4: Reporting a summary of assessment approach for workers

Go to box 4 and provide a (short) summary of the assessment you have performed for workers (in general in 9.0.4, as well as separately for the exposure scenarios in sections 9.x). Also if you are aware of situations where several uses are combined at a site include an explanation on the combined risks in section 10.1.1.

You can fill in some text in the available fields in the CSR template view.

## Optional exercise

### Exercise 5: Qualitative risk assessment – local effects controlled by concentration

The training substance is classified for skin and eye irritation. In addition, it cannot be excluded that the substance also has local effects for respiratory irritation. As no DNEL is available, dermal, eye and inhalation local effects should be qualitatively assessed.

According to the CLP regulation, a mixture containing skin/eye irritants is no longer classified for irritation if the concentration of the skin/eye irritants in the mixture is <10%. This threshold can also be used for a qualitative risk characterisation under REACH. For respiratory irritation the same can apply if the vapour pressure of the substance is low (at the operating temperature).

The concentration of the substance in the product is 2% after the formulation stage and the vapour pressure of the substance is low (7.8 Pa). Even for the contributing activity at elevated temperature, the vapour pressure is still low (300 Pa) according to the threshold set by ECETOC TRA, and therefore it can be assumed for those activities that the risks are controlled.

#### Steps

- Go to box 1 in the Hazard conclusion and scope of assessment tab for Workers:
  - Set a 10% concentration limit for dermal and eye local effects
  - Provide a justification: Risk of dermal/eye local irritancy effects is controlled by substance concentration in product below the generic CLP classification cut-off for mixtures (<10%)

The screenshot displays the REACH assessment tool interface. The 'Workers' tab is selected. The 'Hazard via Inhalation route' section shows the following hazard conclusions:

Type of effect	Hazard conclusion	Risk characterisation type
Systemic effects - long term exposure	DNEL (Derived No Effect Level) 24.7 mg/m <sup>3</sup>	Quantitative
Systemic effects - acute exposure	No hazard identified	Not needed
Local effects - long term exposure	Low hazard (no threshold derived)	Qualitative
Local effects - acute exposure	Low hazard (no threshold derived)	Qualitative

The 'Hazard via Dermal route' section shows the following hazard conclusions:

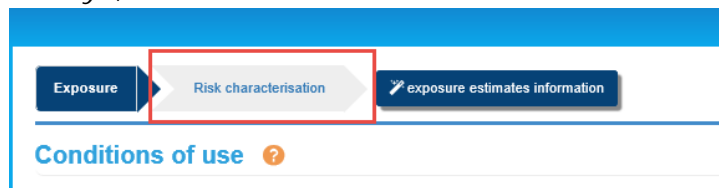
Type of effect	Hazard conclusion	Risk characterisation type
Systemic effects - long term exposure	DNEL (Derived No Effect Level) 7 mg/kg bw/day	Quantitative
Systemic effects - acute exposure	No hazard identified	Not needed
Local effects - long term exposure	Low hazard (no threshold derived)	Qualitative
Local effects - acute exposure	Low hazard (no threshold derived)	Qualitative

The 'Hazard for the Eyes' section shows the following hazard conclusions:

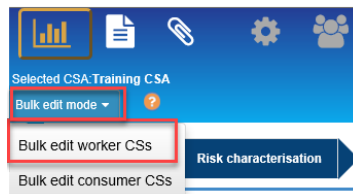
Type of effect	Hazard conclusion	Risk characterisation type
Local effects	Low hazard (no threshold derived)	Qualitative

Concentration limits for dermal and eye local effects are set to 10%.

- Go back to box 3 and check that the risk is flagged as being controlled for skin and eye irritation for scenarios where the concentration of your substance in mixture is below 10%. For instance, open PROC 8a under formulation and go to the "Risk characterisation" tab. A green checkmark should appear in the "risk controlled" column for Dermal, local and Eye, local.



- Set the risk for Inhalation, local to controlled for all worker contributing scenarios where the concentration is <10% by taking the following steps:
  - Click on the "Bulk edit mode" and select "Bulk edit worker CSs"



- Select all worker contributing scenarios where the concentration is set to <10%
- Click on “Edit the qualitative risk characterisation for all selected contributing scenarios”
- Set the risk controlled flag for the local respiratory routes by selecting the checkbox. Provide explanation in the “Qualitative risk characterisation” section (i.e. concentration below 10% and low vapour pressure in all those contributing scenarios)
- Save the changes

### Edit qualitative risk characterisation for selected contributing scenarios

5 contributing scenarios selected

Please note that the qualitative routes that are controlled due to the concentration limit rule, will not be affected in the highlighted CS(s)

Route, type of effect	Risk controlled
Inhalation, local, long term	<input type="checkbox"/>
Inhalation, local, short term	<input type="checkbox"/>
Dermal, local, long term	<input checked="" type="checkbox"/>
Dermal, local, short term	<input checked="" type="checkbox"/>
Eye, local	<input checked="" type="checkbox"/>

Qualitative risk characterisation Cancel edit

Liquid mixture; Formulation or re-packing / PROC 8a: Transfer of substance or mixture (charging/discharging) at non dedicated facilities

The same behaviour will be applied for selected scenarios Overwrite exist...

explanation

**Note:** When editing the Qualitative risk characterisation in the bulk edit mode for a set of contributing scenarios, there are three possible flags for the qualitative risk characterisation:

1. Keep existing values (visible when some of the selected contributing scenarios are set to risk controlled while others are not): for these routes the status of the flag is not modified, i.e. it is kept as it was.
2. Box checked: risk is controlled for all the selected scenarios
3. Box not checked: risk is not controlled for all the selected scenarios

When bulk editing the qualitative risk characterisation, you can view the contents of the Qualitative risk characterisation field per scenario for all selected scenarios. Taking this into account, you can then make a choice whether you want to overwrite or add the new information to the existing text.

## 5. Consumer exposure assessment

Number of exercises: 4 (+1 optional)

### Background information

In this set of exercises you will learn how to use Chesar to carry out consumer exposure assessment. Exposure assessment is to be carried out for each contributing activity for consumers specified for all the consumer uses in the life cycle tree.

Ideally, you have imported a use map with SCEDs (Specific Consumers Exposure Determinants) which describe all the relevant conditions of use for consumers contributing activities. In that case, you carry out exposure estimation and risk characterisation based on the available information. The current exercises illustrate situations where such information is either available in the form of a use map or not.

As a starting point, you will use the Tier 1 **ECETOC TRA exposure estimation tool** that is integrated in Chesar 3. For more information on the ECETOC TRA tool and its applicability, please refer to ECHA Guidance R.15<sup>9</sup> and the ECETOC Technical Report No. 114<sup>10</sup> and 124<sup>11</sup>.

As for worker you can adapt (refine) the default conditions of use for each contributing activity. For effects for which no threshold can be derived (e.g. local effects) and therefore no quantitative assessment can be performed, a qualitative risk characterisation should also be performed.

For some contributing activities the use of ECETOC TRA may not be applicable or sufficient for demonstrating safe use. The use of ECETOC TRA may not be sufficient when (after refinement on the actual conditions of use, e.g. using conditions of use based on SCEDs, if available) the exposure estimates are still above the DNELs (i.e. Risk Characterisation Ratio above 1). In these cases, results of a higher Tier assessment (performed with an external tool) can be included.

At the end of this set of exercises you will have a Chesar substance with ECETOC TRA (TRA subcategories based) and/or ConsExpo exposure datasets. As not all contributing scenarios will be refined as part of this exercise and the qualitative assessment may not be done (as this is an optional exercise), not all consumer contributing activities in the life cycle tree will show safe use. To conclude, you have described your assessment approach in the CSR template.

### Exercises

#### Exercise 1: Creation of ECETOC TRA exposure dataset based on ECETOC TRA subcategory

You want to create an ECETOC TRA based assessment and refine it, if needed.

#### Steps

1. Go to the consumer contributing activity "Waterborne paint; Roller application or brushing (PC 9a)"

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<sup>9</sup> European Chemicals Agency (2016). Guidance on Information Requirements and Chemical Safety Assessment Chapter R.15: Consumer exposure assessment. Reference: ECHA-16-G-07-EN. Publ.date: July 2016. Accessible from:

[https://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r15\\_en.pdf](https://echa.europa.eu/documents/10162/13632/information_requirements_r15_en.pdf)

<sup>10</sup> ECETOC AISBL (2012). ECETOC TRA version 3: Background and Rationale for the Improvements. Reference (print): ISSN-0773-8072-114. Publ.date: July 2012. Accessible from:

<http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC-TR-114-ECETOC-TRA-v3-Background-rationale-for-the-improvements.pdf>

<sup>11</sup> ECETOC AISBL (2014). Addendum to TR114: Technical Basis for the TRA v3.1. Reference (print): ISSN-0773-8072-124. Publ.date: June 2014. Accessible from: [http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC\\_TR\\_124.pdf](http://www.ecetoc.org/wp-content/uploads/2014/08/ECETOC_TR_124.pdf)

- Set that the conditions of use are based on TRA consumers product/article subcategory

- Select the subcategory relevant for your assessment, "Waterborne latex wall paint"

All the conditions of use and related values set by ECETOC for that subcategory are displayed

- Create a TRA consumer exposure dataset using these conditions of use as input. When you save it, the exposure estimation for the exposure routes covered by TRA are calculated

- Refine the consumer contributing activity by adapting the concentration of the substance in the product to 1% according to information from paint makers of the formulated products (consumer products usually do not contain more than 1% of the substance)

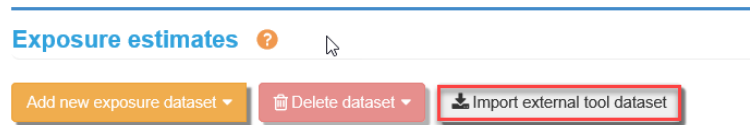
**Note:** Only the "Percentage of the substance in mixture/article" is editable when using an ECETOC TRA subcategory

## Exercise 2: Assessment based on ConsExpo exposure dataset

If exposure estimates obtained with ECETOC TRA Consumer 3.1 cannot demonstrate safe use based on the level of knowledge on the conditions of use, you may base your assessment on a higher tier tool like ConsExpo. For that exercise, a ConsExpo based assessment has been carried out using ConsExpo Web and an export file to Chesar is available.

### Steps

- Go to the consumer contributing scenario "Roller application or brushing; Solvent rich paint (PC9a)". In the condition of use section, there are only the default conditions of use for consumer contributing scenarios (i.e. Percentage of substance in mixture/article and Physical form of the used product). In the exposure estimates section, no dataset has been reported in the table
- Click on the "Import External tool dataset" button and import the "External tool dataset\_Training\_ Solvent rich paint" file



3. Check that new conditions of use relevant for your assessment have been imported and contain values
4. Check that exposure estimates have been imported for your assessment
5. Click on the " ConsExpo web 1.2" link to adapt the dataset

## Exposure estimates ?

Route, type of effect	Method	Status	Exposure	RCR
<b>Inhalation routes</b>				
Inhalation, systemic, long term	TRA Consumers 3.1 (R15)	Supportive		
	External tool: ConsExpo web 1.2	Main	8.7 mg/m <sup>3</sup>	1.431
<b>Inhalation, systemic, short term</b>				
Inhalation, local, long term	TRA Consumers 3.1 (R15)	Supportive		
	External tool: ConsExpo web 1.2	Main	8.7 mg/m <sup>3</sup>	

6. Adapt the following exposure estimates:
  - Adjust the "Inhalation exposure: long term concentration" value to 4.35 mg/m<sup>3</sup> (as shown in the following screenshot)

The reasoning for this is as follows: for the inhalation concentration, the revised guidance on Consumer exposure assessment R15 enables to take into account the duration of the event (if the RCR remains >1 when taking the event concentration as exposure level). The event duration is 132 minutes. This means that you can divide the ConsExpo "Inhalation mean event concentration", reported in the inhalation long-term exposure, by a factor of 2 to get a mean daily concentration, according to R15 paragraph 15.2.3, to be compared to the long term DNEL. Adjust the value accordingly and report the rationale of the choice in the field "Explanation on exposure estimations".

### Edit dataset ?

Exposure estimation tool

External tool: ConsExpo

Tool version: web 1.2

Exposure data from external tool

+ Add type of exposure

Type of exposure	Exposure
Inhalation exposure: long term concentration	8.7 mg/m <sup>3</sup>
Dermal exposure: long term systemic dose	0.55 mg/kg bw/day

Conditions of use

+ Add new condition of use

Percentage (w/w) of substance in mixture/article <= 1 %

Link to this dataset:  Already linked to:

- For the oral long term systemic exposure, the exposure is assumed to be not relevant by the RIVM factsheet used in ConsExpo and therefore an exposure of 0 mg/kg day can be assumed. Click on the "Add type of exposure" button, select the relevant route (oral) and enter 0 in its "exposure" field
7. Save the changes



## 8. Check the risk characterisation

**Note:** Not all the ConsExpo input parameters should be reported as Conditions of Use under REACH (e.g. molecular weight matrix and mass transfer coefficient in the example above). Therefore only part of them are reported as Conditions of Use to the ConsExpo dataset. Nevertheless for transparency of the assessment all the input parameters are reported in the “Explanation on exposure estimates” field.

### Exercise 3: Reporting a summary of assessment approach for consumer

Go to box 4 and provide a (short) summary of the assessment you have performed for the consumer (in general in 9.0.5, as well as separately for the exposure scenarios in sections 9.x when needed). If you are aware of situations where several products containing the substance are used at the same time (within a day) information on combined risks might be provided in section 10.1.2.

**Note:** Information provided in section 9.x is not meant to replace the list of CoU, which need to be reported and described in the conditions of use section. When copying and pasting from an external document the formatting may not be kept when being transferred to the CSR.

### Optional exercise

#### Exercise 4: Perform the qualitative risk characterisation

The substance is classified for skin and eye irritation and it is assumed that it is also irritating to the respiratory tract. As no DNEL is available, these local effects should be qualitatively assessed.

According to the CLP regulation the concentration limit under which a mixture containing an irritant substance is no longer classified for skin and eye is 10%. For the consumer activities the concentration of the substance in the product is 1% and therefore it can be assumed that the risks are controlled.

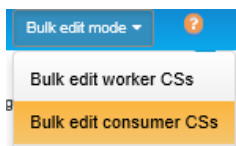
The same rationale is also applicable to the respiratory irritation, as the substance has a low vapour pressure at temperature levels expected for the uses covered in this CSR.

### Steps

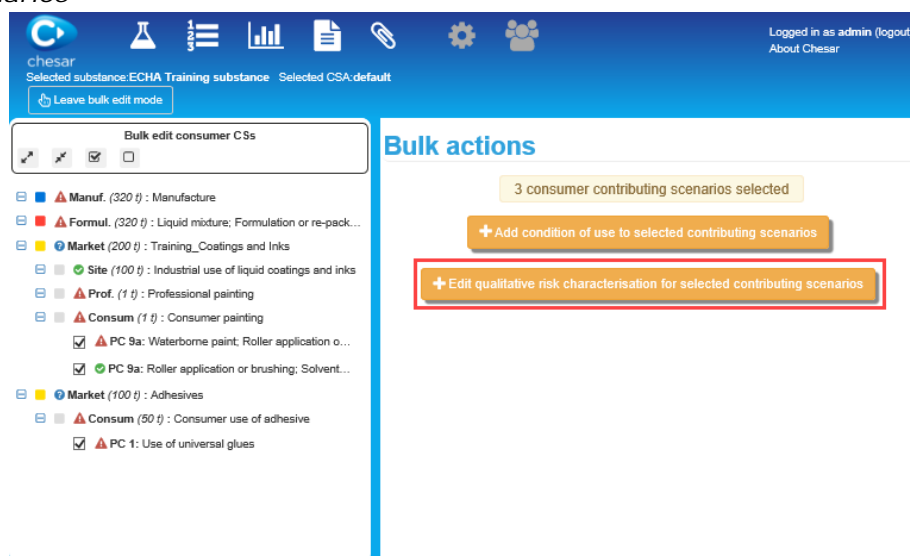
1. Go to box 1 in the Hazard conclusion and scope of assessment tab for Consumers:
  - Set a 10% concentration limit for dermal and eye local effects
  - Provide a justification: Risk for dermal/eye local irritancy effects is controlled by substance concentration in product below the generic CLP classification cut-off for mixtures (<10%)

The screenshot shows the 'Consumers' tab in the ConsExpo software. The interface is divided into several sections for different exposure routes and effects. The 'Consumers' tab is selected, and the 'Hazard via Inhalation route' section is visible. Below it, the 'Hazard via Dermal route' section is shown, with two input fields highlighted by red boxes: 'Concentration limit for dermal local effects' and 'Concentration limit for eye local effects', both set to 10%. The 'Hazard via Oral route' and 'Hazard for the Eyes' sections are also visible. The interface includes a sidebar with navigation options and a top navigation bar with the 'Consumers' tab highlighted.

2. Go back to box 3 and check that the risk is flagged as being controlled for skin and eye irritation for all consumer scenarios as the concentration of your substance in mixture is below 10%. For instance open xxx and go to the “Risk characterisation” tab. A green checkmark should appear under “risk controlled” column for Dermal, local and Eye, local.
3. Set the risk for Inhalation, local to controlled for all consumer contributing scenarios where the concentration is <10% by taking the following steps:
  - Click on the “Bulk edit mode” and select “Bulk edit consumer CSs”



- Select all consumer contributing activities (as the concentration is 1% in all consumer products)
- Click on “Edit the qualitative risk characterisation for all selected contributing scenarios”



- Set the risk controlled flag for the local respiratory routes by selecting the checkbox. Provide explanation in the “Qualitative risk characterisation” section (i.e. concentration below 10% and low vapour pressure in all those contributing scenarios)
- Save the changes

**Note:** Introduction of RMM is not common for consumer uses and therefore sufficient attention has to be paid to the rationale for controlling of local effects.

## 6. Export to IUCLID and CSR generation


*Number of exercises: 3*

At the end of this set of exercises, you will have generated sections 9-10 of the CSR and the complete CSR. In order to generate the full CSR, you must synchronise (i.e. export) the Chesar uses to IUCLID section 3.5.

### Exercises

#### Exercise 1: Generate CSR sections 9-10


The generation of the sections 9-10 of the CSR is a very easy exercise, if everything has been done well during the previous steps.

Chesar gives you the possibility to edit information in the CSR sections 9-10 before generating the CSR document. For each sub-section presented in the right pane of the view in Chesar, the content entered in the previous steps is displayed. By clicking on the  icon you can edit the information in any editable field if needed.

#### Steps

1. In box 4, go to "Manufacture, Closed systems, Dry process (no water used in process) (ERC 1)" (section 9.1.1)
2. Enter the following information in the "Explanation for CSR contributing scenario" field: "Closed systems; Dry process"
3. Go to box 2 and verify that the newly added information is visible in the "Explanation for CSR contributing scenario" field
4. (You may edit other fields and verify that the provided information is displayed correctly in the relevant Chesar boxes)
5. Go back to box 4 and click the button "Generate CSR" and select "Generate sections 9-10"
6. The CSR section 9-10 of the "ECHA Training substance" is generated
7. Verify the content of the sections 9-10 and the content of the fields that you have edited directly in box 4

**Note:** Generating sections 9 and 10 is only useful for checking intermediate versions and should not be used to paste to sections 1-8 generated separately. The functionality for generating the full CSR supports consistency between the IUCLID technical dossier and the CSR.

When an editable field contains no text then Chesar displays the name of the field highlighted in orange and also the  icon to indicate that text can be provided if needed.

#### Exercise 2: Export of uses to IUCLID

The IUCLID instance in which the "ECHA Training substance" exists should be up and running.

To ensure that the CSR documents the CSA in a consistent and transparent way, the first step to do is to export the uses created in Chesar to IUCLID 6 and to ensure that no uses are reported in IUCLID which have not been assessed in Chesar (unless there is justified reason why some uses are not assessed).

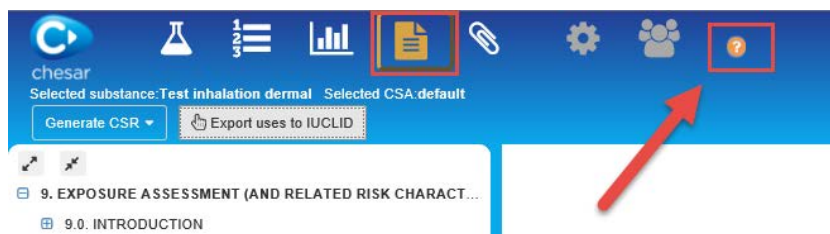
#### Steps

1. Ensure that IUCLID is up and running and that it contains the "ECHA Training substance". Look at section 3.5 and verify that it is empty

2. Go to box 4 and click the button "Export uses to IUCLID". A pop-up message appears asking you to select the removal options for the uses already present in IUCLID (if any)
3. Select the option "Update uses that have a corresponding use in Chesar and keep all other existing uses"
4. Verify in IUCLID section 3.5 that the Chesar uses have been correctly copied. If you do not directly see the results, go back to the home screen and then re-open the substance to refresh the view
5. Verify in IUCLID section 3.5 that the contributing scenarios for environment and workers/consumers are populated with the key information from Chesar

**Note:** Chesar does not proceed with the export of uses if the substance properties available in IUCLID and in Chesar do not match. In case of mismatch, the user is warned with the message "Substance properties changed!", which lists all modifications of the properties. Before proceeding, re-import the substance dataset from IUCLID.

Before you export your uses read carefully the Chesar help text for box 4, and review the information provided in the "related assessment" field in IUCLID (available in section 3.5 for each created use).



Remember that once you have exported your uses to IUCLID you may still have to do some actions in the section 3.5 of IUCLID which cannot be done in Chesar, in particular:

- Link your uses to your sites
- Link compositions to your uses when you have several compositions with different hazard profiles
- Report uses registered according to article 17/18
- When some of your end uses have a specific regulatory status, you may link them to the precursor uses
- If you have flagged some use at industrial sites as intermediate (registered under article 10) you should provide more information to confirm the intermediate status
- If you have exported uses belonging to a joint CSA you may modify the *Related assessment* status to use assessed in a joint CSR but not a lead's own use

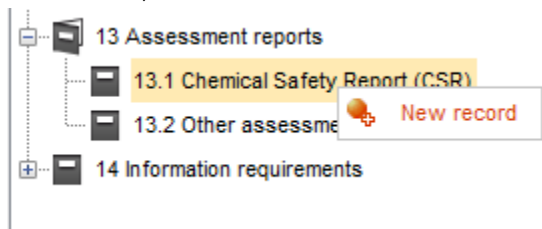
How to perform these actions is not part of the scope of the Chesar training.

### Exercise 3: Generate the full CSR

Chesar is also able to generate the full CSR (i.e. Part A and Part B section 1-10), by combining the information coming from IUCLID (responsible for fetching the information for sections 1-8) with the information coming from Chesar. The generation of the full CSR from Chesar can be done only if IUCLID is up and running. Once the full generation is launched, Chesar compares the information on the substance properties with the information available in IUCLID 6. If it detects differences in one or more substance properties, then the CSR generation cannot proceed. If this happens, a re-import of the substance in Chesar is needed. The synchronisation mechanisms available in Chesar will take care of re-calculating the exposure estimates and the RCR calculations (if needed). Make sure that after this re-import your CSA is still consistent.

## Steps

1. Ensure that the uses have been correctly exported to IUCLID (exercise 2 above)
2. In IUCLID, create a new record under section 13.1 by right-clicking on that section



Complete the following information:

- *Type of CSR*: Own CSR (own uses)
- *Chemical safety assessment/report tool used*: Chesar
- Fill in the text fields for the CSR Part A (Summary of risk management measures, Declaration that risk management measures are implemented and Declaration that risk management measures are communicated)
- Save the record

Once the CSR is completed, this is also the record where you will need to attach it before submitting your dossier.

3. Go back to Chesar box 4, click the button "Generate CSR" and select "Generate full CSR (sections 1-10)"
4. The full CSR of the "ECHA Training substance" is generated
5. Verify the content of the generated document

## 7. ES for communication

Number of exercises: 2 (+1 optional)

### Background information

In this set of exercises you will learn how to finalise and generate Exposure Scenarios (ES) for communication to be annexed to the Safety Data Sheet (SDS) of the substance. ES for communication are use-specific and are meant to describe operational conditions (OC) and risk management measures (RMM) as documented in the ES for the CSR. A standard format for ES for communication has been defined containing four sections:

1. Title section
2. Conditions of use affecting exposure (for each contributing scenario)
3. Exposure estimation and reference to its source
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

You will also learn how to customise your ES for communication, when needed, by modifying the information included by default in the ES for communication.

Additionally you will learn how to generate ES for communication in an EComXML format.

At the end of this set of exercises, you will have generated an rtf as well as an EComXML document (optional) with the pre-selected exposure scenarios for communication.

### Exercises

#### Exercise 1: Generate default ES for communication

By default the ES for communication generated in Chesar contains the following:

- A table of contents listing all the ESs by their structured short title. The default short title is defined according to the Publication on Structured Short Titles<sup>12</sup>
- For each ES:
  - The use descriptors to describe the market (PC/SU) and the list of all the contributing scenarios in the Title section
  - The set of conditions of use

#### Steps

1. Generate the default exposure scenarios for communication for formulation and all subsequent end uses. Include the ES subheadings labelling the different types of OC or RMM (by unclicking the corresponding boxes in the "Generate SDS ES document" pop up window) and section 3 (exposure estimates and risk characterisation ratios) in the derived document.

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<sup>12</sup> <http://www.ducc.eu/documents/StructuredShortTitles%20for%20publication%20041114%20final.pdf>

## Generate SDS ES document

### ES Relevant for SDS ES

Select all Exposure scenarios

ES #: Manufacture; Manufacture

ES #: Formulation or re-packing; Liquid mixture; Formulation or re-packing

ES #: Consumer use; Consumer use of adhesive

### Formatting

Do not include ES subheadings

Use alternative template with common conditions of use per ES for workers

Add section 3, including exposure estimates and risk characterization when generating ES for SDS

### Select language

English (EN)

OK Cancel

**Notes:** The conditions of use expressed as freetext (not standard phrases) are printed in italic and they will not be conveyed via the EComXML.

An alternative template in which the common conditions of use per ES are combined for workers is also available.

Chesar 3.3 also supports the generation of the SDS ES in an rtf format, possibly in any EU language if ECom standard phrases have been used systematically and if a translation of the ECom phrase catalogue in the desired EU language is uploaded in the library.

### Exercise 2: Review ES for communication at Exposure scenario level and Contributing scenario level

You can modify the default information available in the ES for communication at exposure scenario level. If needed, market sector information (PC, AC, SU codes) can be included/excluded in the structured short title and specific information about scaling can be provided in the relevant fields of section 4.

Information to be communicated on the conditions of use can be reviewed and modified at contributing scenario level. For the current exercise no changes will be made.

#### Optional exercise

### Exercise 3: Generate ECom XML

It is possible to generate the ES for communication in EComXML format. This will allow automatic uploading of the ES in the recipient IT system.

#### Steps:

1. Click the "Generate ECom XML" button
2. Select at least one exposure scenario (or all) to be included in the generated XML file
3. Save the generated file