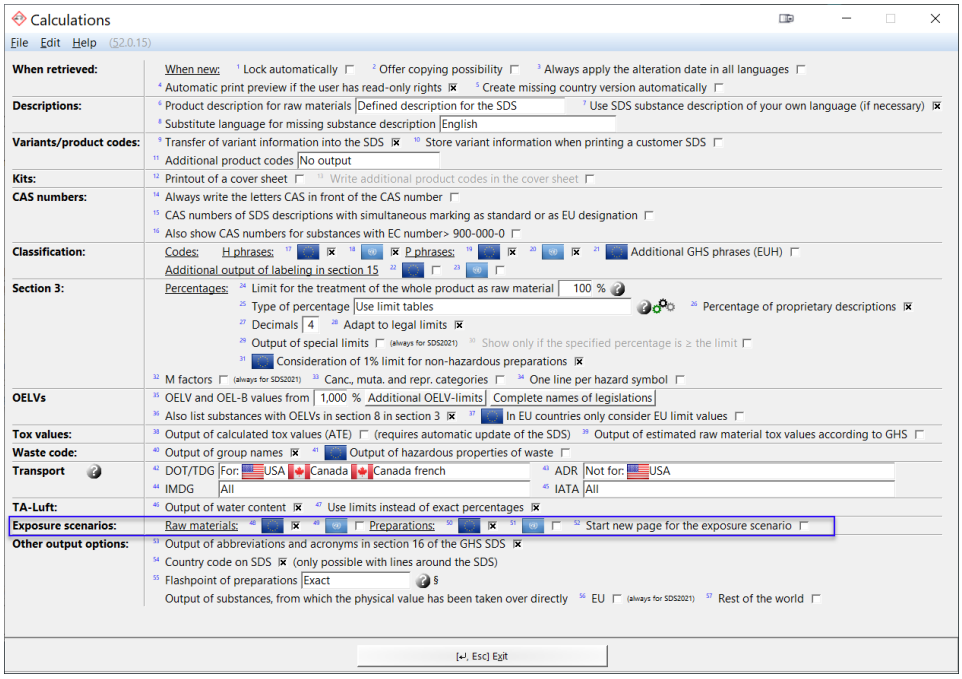
Step-by-Step Instructions for the creation of Exposure Scenarios:

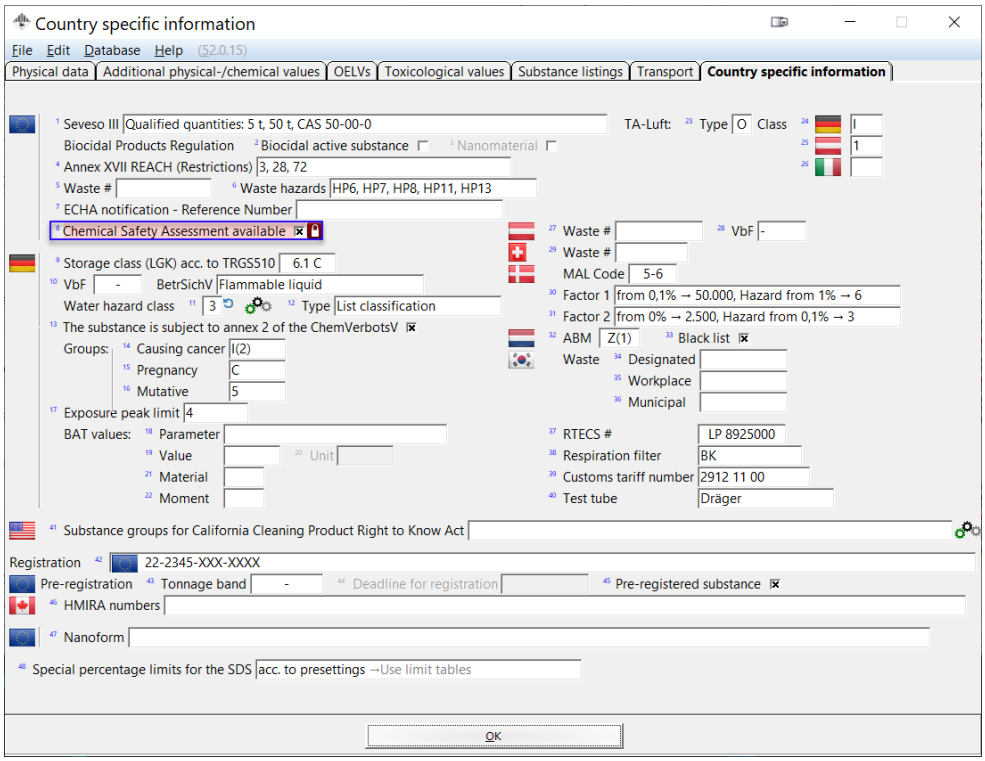
The examples presented in these instructions are simply for the purpose of demonstrating principles and are therefore very simplified.

First activate, as needed the fields **50 to 54** concerning the **Output of Exposure scenarios**, in the screen ***Calculations*** [*Maintenance programs – Safety Data Sheets – Options – General options*].

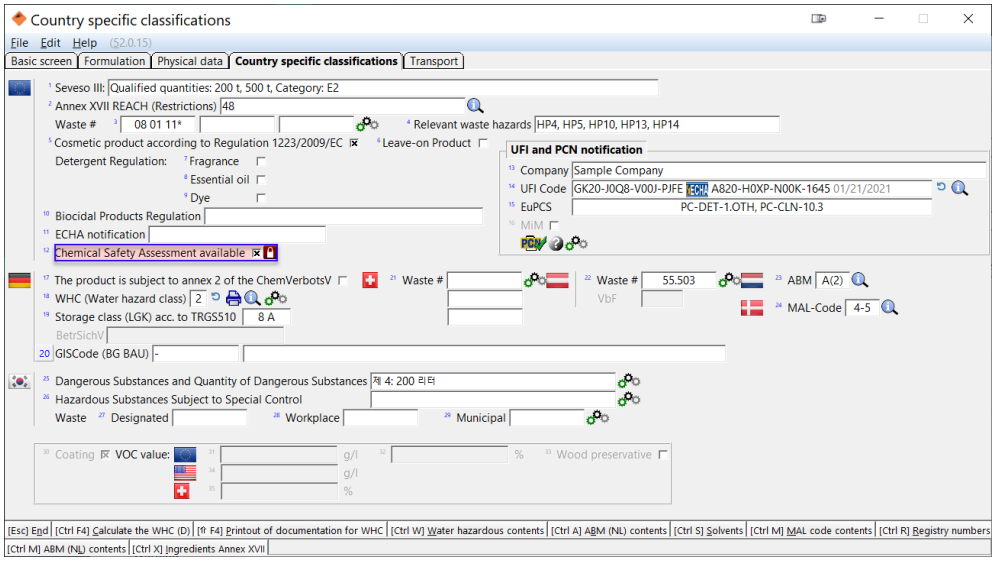


1. Next, indicate for each substance, the availability of a **Chemical Safety Assessment (CSA)**.

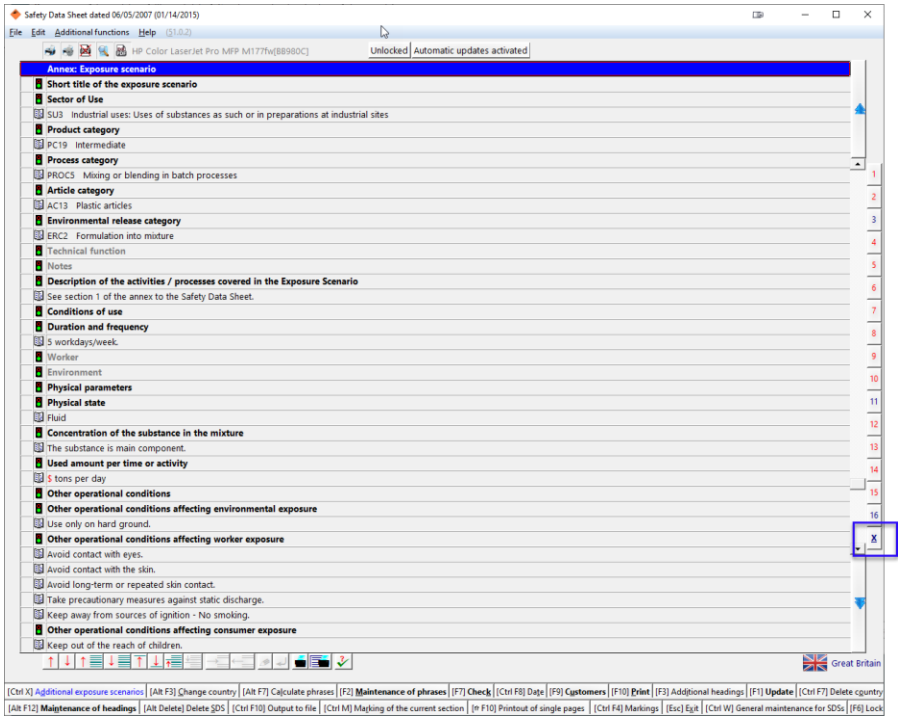
    a. For raw materials this option is number 31 "**Chemical Safety Assessment available**" in the database tab ***Country Specific Information*** [Maintenance of raw materials].



b. For a preparation, this is option 20 in the database tab ***Country Specific Classifications*** [Maintenance of preparations].



2. Then enter the editing screen of the SDS for which the Exposure Scenarios (ESs) are to be created [by pressing F8 in the *Maintenance of raw materials / preparations*]. There, the first ES is generated by going to **Section X** (below Section 16) and filling in the necessary data. All fields, for which the ChemGes database contains data, are automatically populated.



3. Conditions by which phrases are selected can be used for a more automated output (see steps 8 and 9) of information that does not automatically appear on the ESs.

4. The creation of additional ESs is a little more complicated. The following points are an introduction to the principles behind the steps that are listed below.

    a. Additional ESs are created by means of **Templates**.
    b. **Templates** are generated for **Dummy Substances**.
    c. **Dummy Substances** are fictional substances and are not copies of the substance for which the additional scenarios are being creating.
    d. **Dummy Substances** are merely substances created with a Specific Use and Exposure in mind and simply have similar characteristics to substances to which the ES is to be applied. These similar characteristics must be general enough to apply to all substances to which this Use and Exposure apply. In this way, the **Templates** can be used over and over again for many different substances. (Compare this concept to the Labeling module, in which templates are created (in the *Maintenance of Labels*) which are then chosen for individual substances and automatically populated.)

Consider this Example:

- Company XY sells paint. This paint is either applied outdoors or indoors and on either wood or on plastic.
- Company XY generates **4 Dummy Substances**

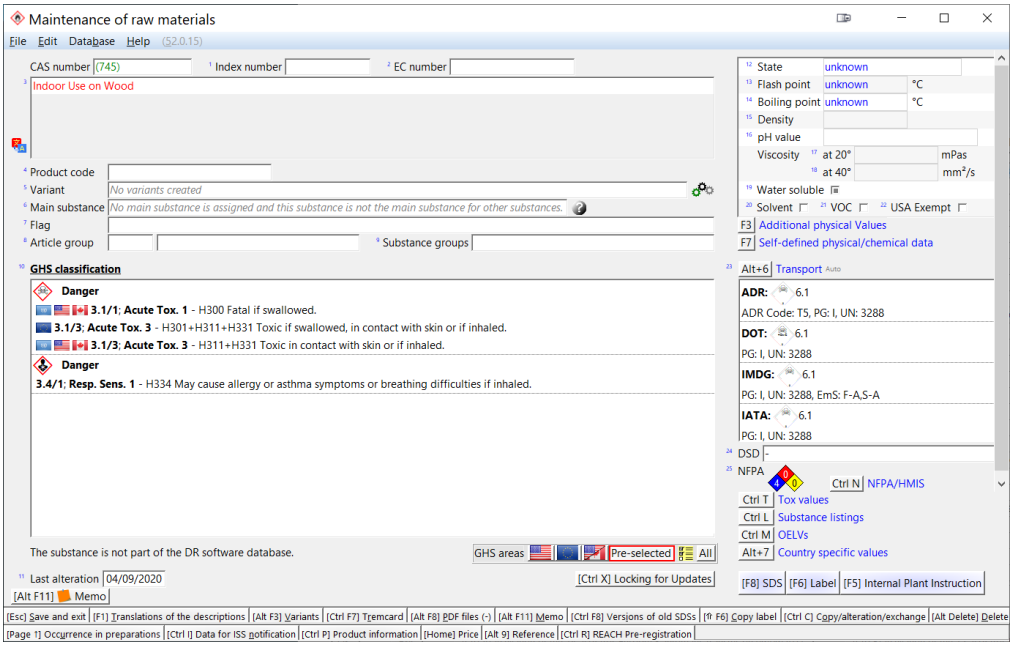
    - The first substance is called *Outdoor Use on Wood*
    - The second substance is called *Outdoor Use on Plastic*
    - The third substance is called *Indoor Use on Wood*
    - The fourth substance is called *Indoor Use on Plastic*
- The ESs created for these four dummy substances are called **Templates**
- Company XY produces Product A (for Indoor and Outdoor use)
- Company XY assigns the four exposure scenarios to Product A.
- Thus, Product A now has the ES that was created with its SDS and these four other Templates (Further discussion will come later regarding the ES created for the actual substance SDS).
- The Dummy Substances assigned to these Templates have similar general characteristics (to the extent applicable to the ES) as Product A, but they are not copies of Product A.
- These Dummy Substances can then also be used for Product B, if it has these similar characteristics.
- Upon linking these **Templates** to Product A, it becomes possible to make them more specific (only the linked copies and not the original templates) to Product A. This is done with phrases and conditions. In this way the appropriate information is then automatically output in the SDS and the ES and the legislatively required link is created.

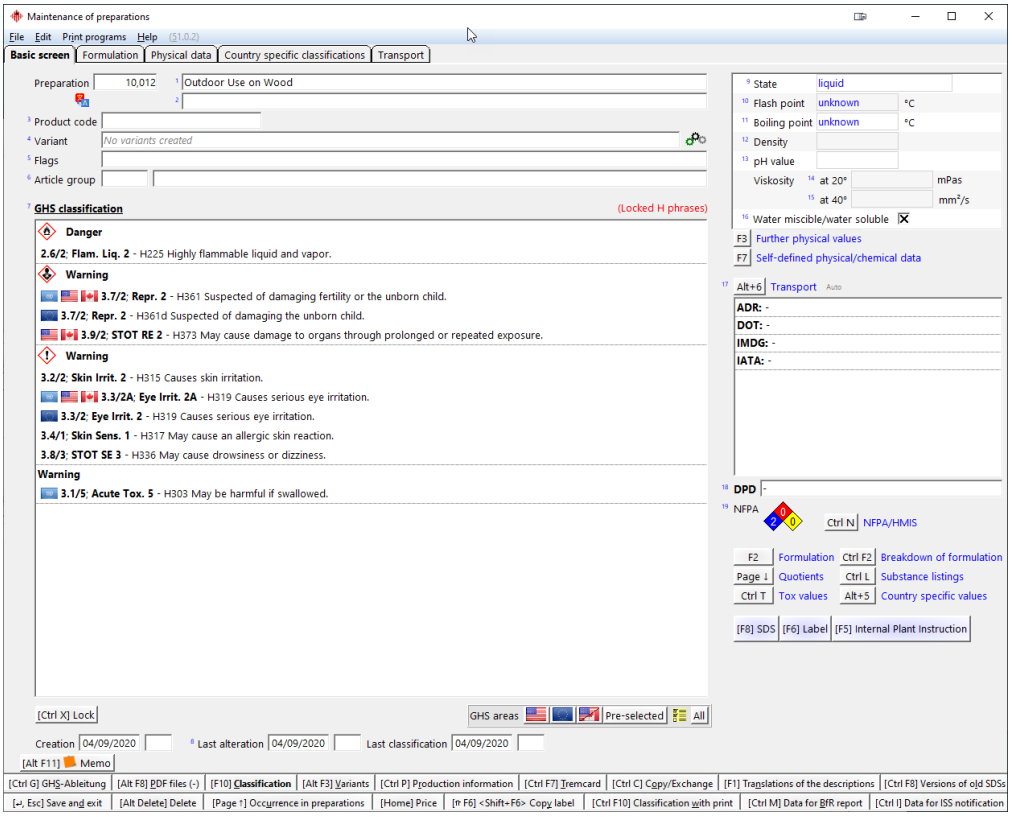
Steps for generating additional Exposure Scenarios:

1. Generate **Templates** via dummy raw materials (with pseudo-CAS numbers) or dummy preparations (with new preparation numbers)

   These will be interchangeable:

    a. One can use **Raw Material Dummy Templates** for Raw Material Exposure Scenarios and for Preparation Exposure Scenarios. The same applies for **Preparation Dummy Templates**. For example, when generating an ES for Product A (a preparation) from Company XY, one might want to use a phrase that can only be accessed in Raw Material SDSs. Therefore, one can use a raw material dummy template and link it to Product A.
    b. Equally it is possible to link a mix of raw material and of preparation templates, if desired.



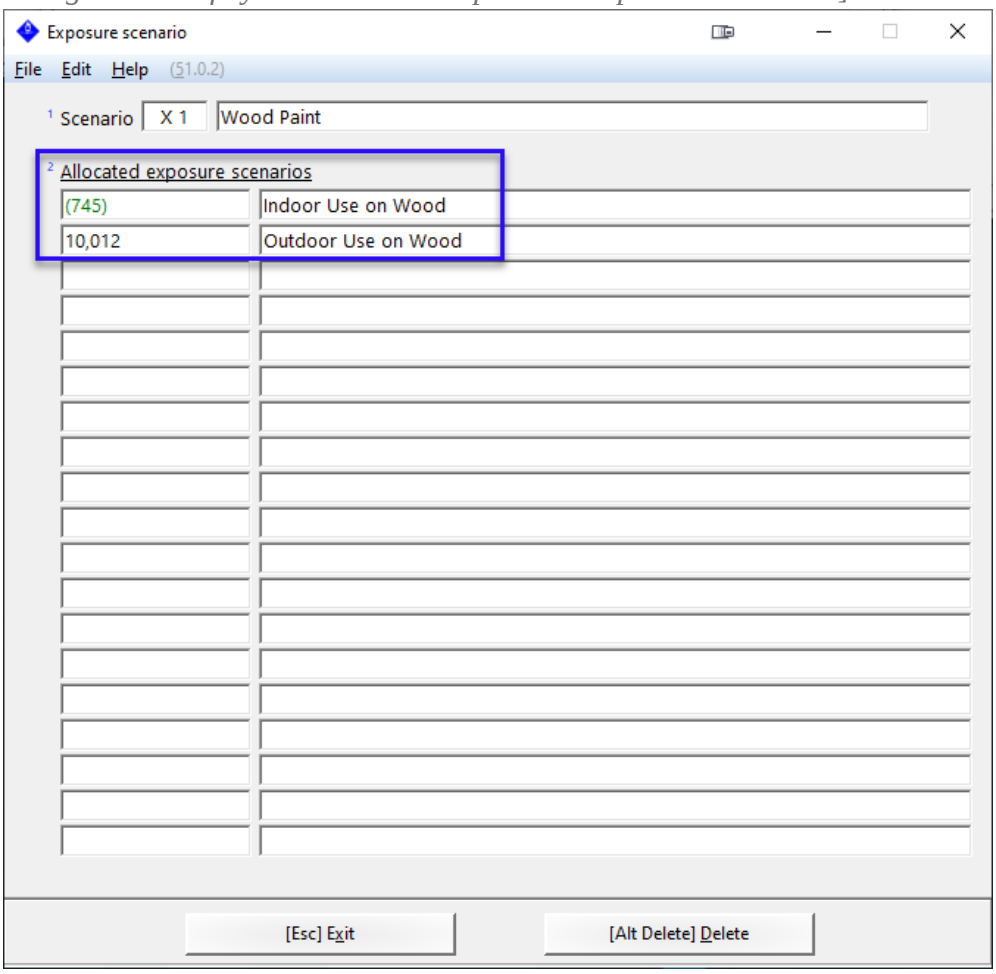


2. When generating these **Dummy Substances** (raw materials or preparations) the following actions must be taken for the newly created substance:
   a. Assign a *Substance Name* that is representative/descriptive of the Exposure Scenario Template.

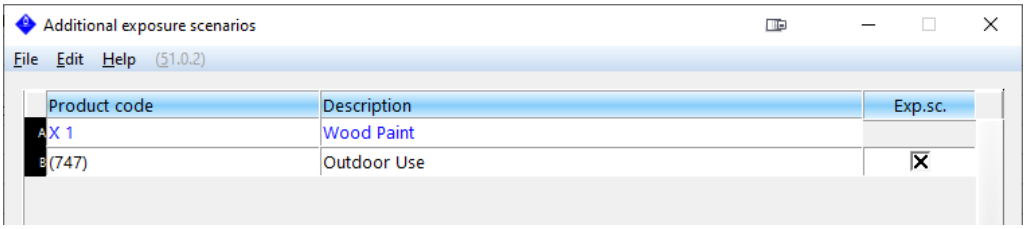
b. Give the substance all of the necessary *Characteristics*, that both apply to every substance that uses this Template and to the actual ES that is to be described by the template.

3. These Templates can be grouped so that it is not necessary to link individual exposure scenarios every time. In reference to our paint example above, it is possible to generate a group of ESs for Wood paint (a group consisting of two exposure scenarios, the application outdoors and the application indoors) and in the future select the group of templates rather than the individual ESs.

   a. This can be done in the ***Exposure Scenarios*** maintenance screen [*Maintenance Programs – Safety Data Sheets – Options – Exposure Scenarios*].

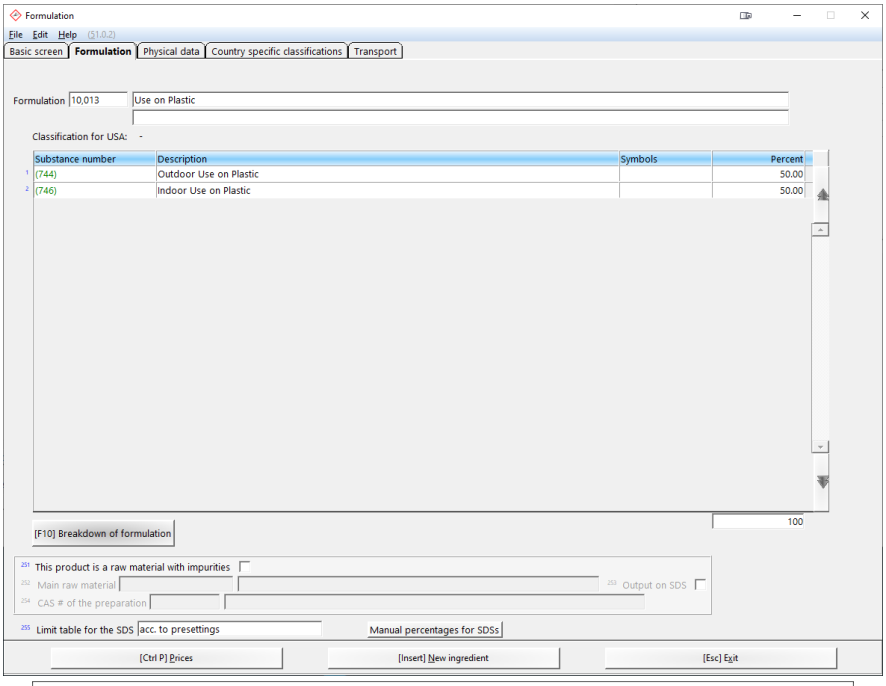


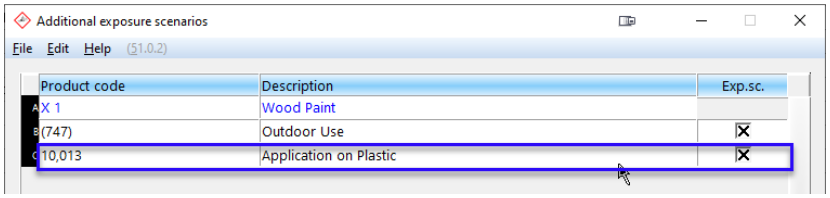
4. Now return to the SDS for which additional ESs are to be created. At the bottom of the screen is the option Ctrl X ***Additional Exposure Scenarios*** (red when ESs are linked) After clicking on this button, the screen for the allocation of additional ESs, opens.



5. Here Exposure Scenario Templates (from Dummy Substances) or Exposure Scenario Groups (Groups of Templates) can be chosen. All ESs that are assigned to a substance which is assigned to provide an ES for the current substance for which scenarios are being generated, will also be included.

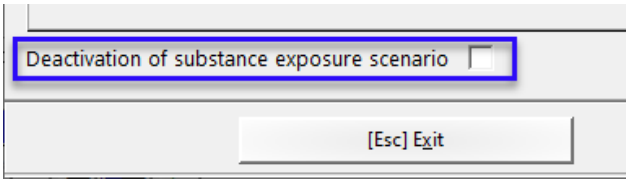
   For Example: Substance A is paint. The ES template (1) 'Application on Plastic' is assigned; two ESs have previously been assigned to template (1) 'Outdoor Application' and 'Indoor Application'. As a result, all three templates are now assigned to substance A.





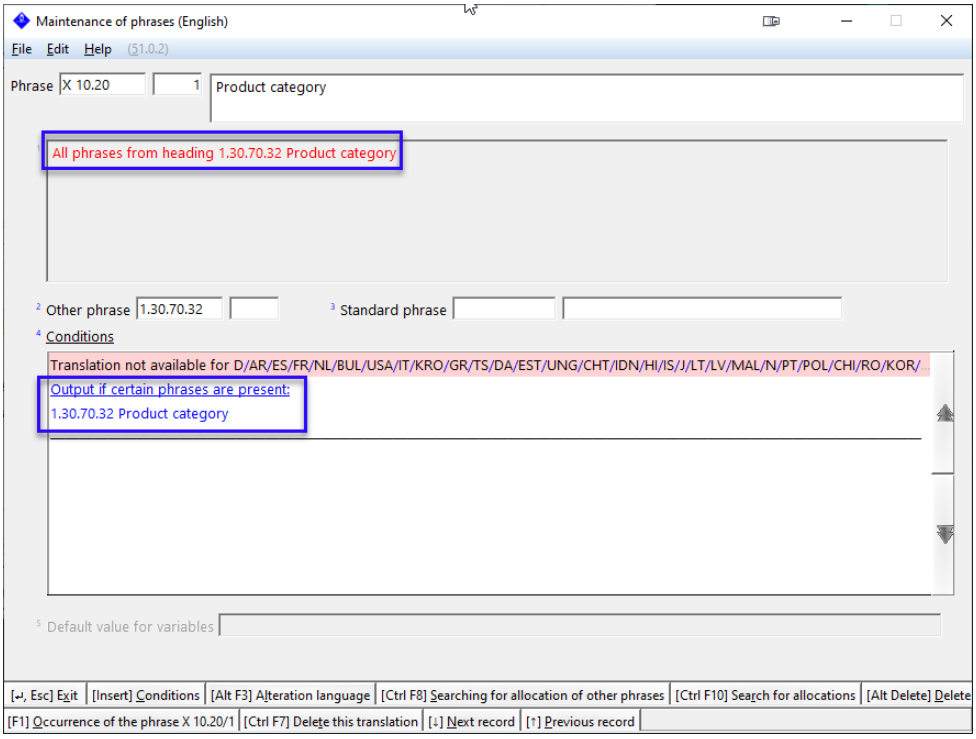
6. These additional (linked) ES Templates are automatically populated, just like the first one that was created for this SDS, with information from the SDS.

7. When adding ESs, it is possible to deactivate the ES that was originally generated for the substance (generated in Step 3) by activating the option **Deactivation of Substance Exposure Scenario** in the screen ***Additional exposure scenarios***. This can be activated if only templates are to be used.

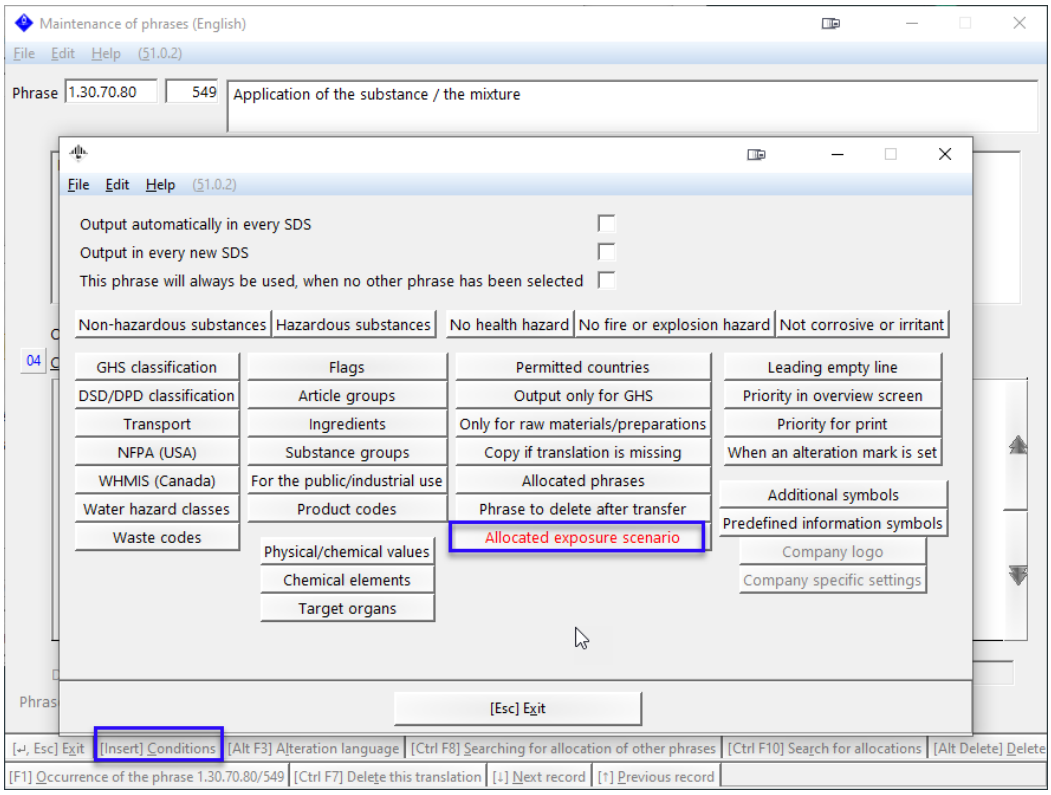


8. The automatic filling of ESs is done via conditions in the ***Maintenance of Phrases*** [*Maintenance Programs – Safety Data Sheets – Text Modules*].

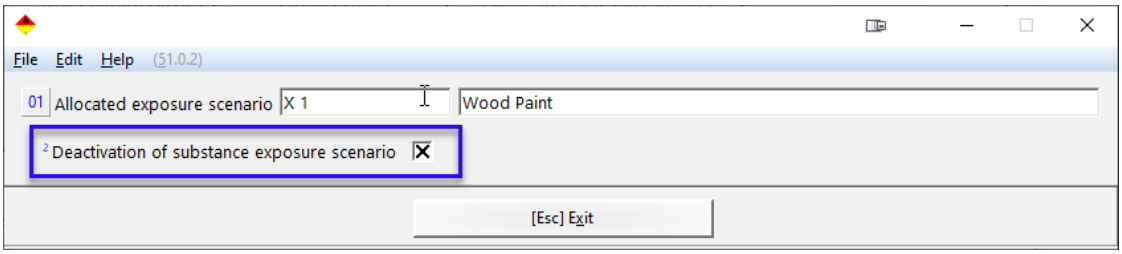
- Positions in the ES can be linked directly to phrases in the SDS.



- Phrases can be allocated to ESs.



- In this condition, the option for the ***Deactivation of substance exposure scenario*** can also be activate, thus automating it for this ES.



9. The data in the SDS must correspond to the data in the ESs. Therefore, it will be necessary to ensure that direct links are created via various phrases and that the SDS has an adequate amount of phrases to cover all of the ESs. This applies, for example, to Product Categories in Section 1.