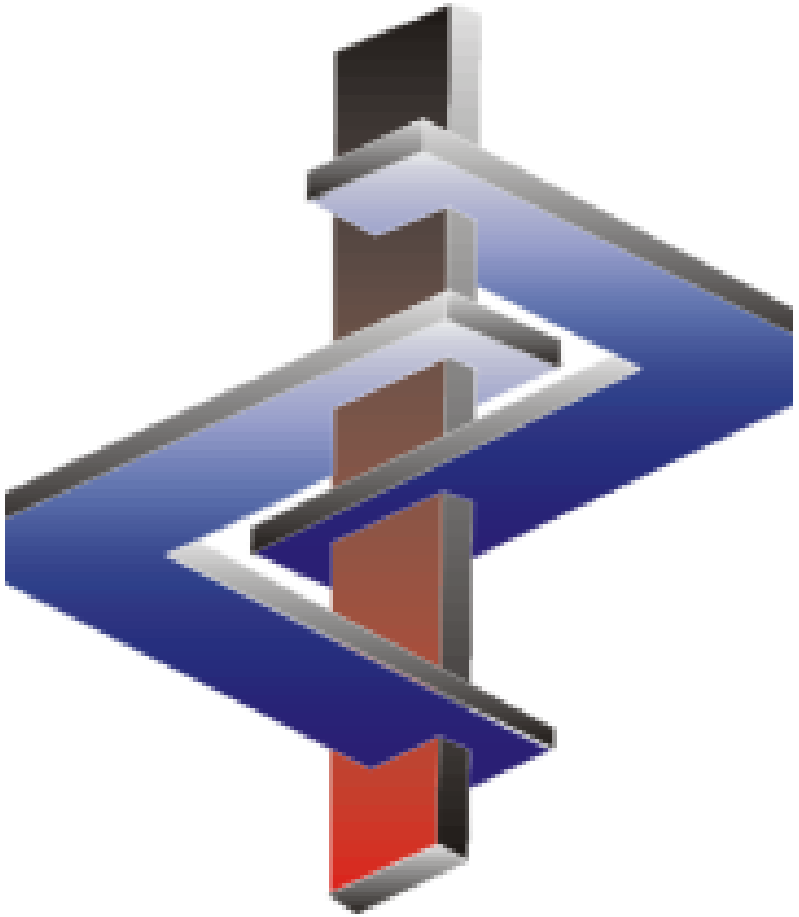


Creating a Preparation

Introduction

- **Raw Materials are those with a CAS number and Preparations are a combination of Raw Materials.**
  - Many companies have Raw Materials that are by definition intermediate products consisting of Raw Materials (CAS Numbers).
  - It is necessary to set up these intermediates in ChemGes as preparations, so that, for calculation, as is legislatively required, they can be broken down into their Raw Materials.
  - Therefore, when using intermediates in preparations, the following must be taken into consideration This also means that data/classification changes need to be done at the lowest level of the breakdown, so that they carry through. (i.e. Changing the classification of an intermediate will not carry through to the final product – it is necessary to change the Raw Material Data so that it leads to the desired change). The formulae in the legislation are based on Raw Material data.

- **ChemGes does not contain any Preparations by default.**

Please direct additional questions to our hotline
Via telephone at *+1 (902) 832-3425* or *+43 2628 619 00*
Via email to *info@dr-software.com*

Introduction

- **ChemGes calculations are based on formulae from the legislation**, as far as they exist and on formulae based on the legislation, generated by our staff of experts.
  - We do not base our calculations or data on 'Guidance Documents' (ie ECHA, EPA,…). When there is a discrepancy, the legislation takes precedence.

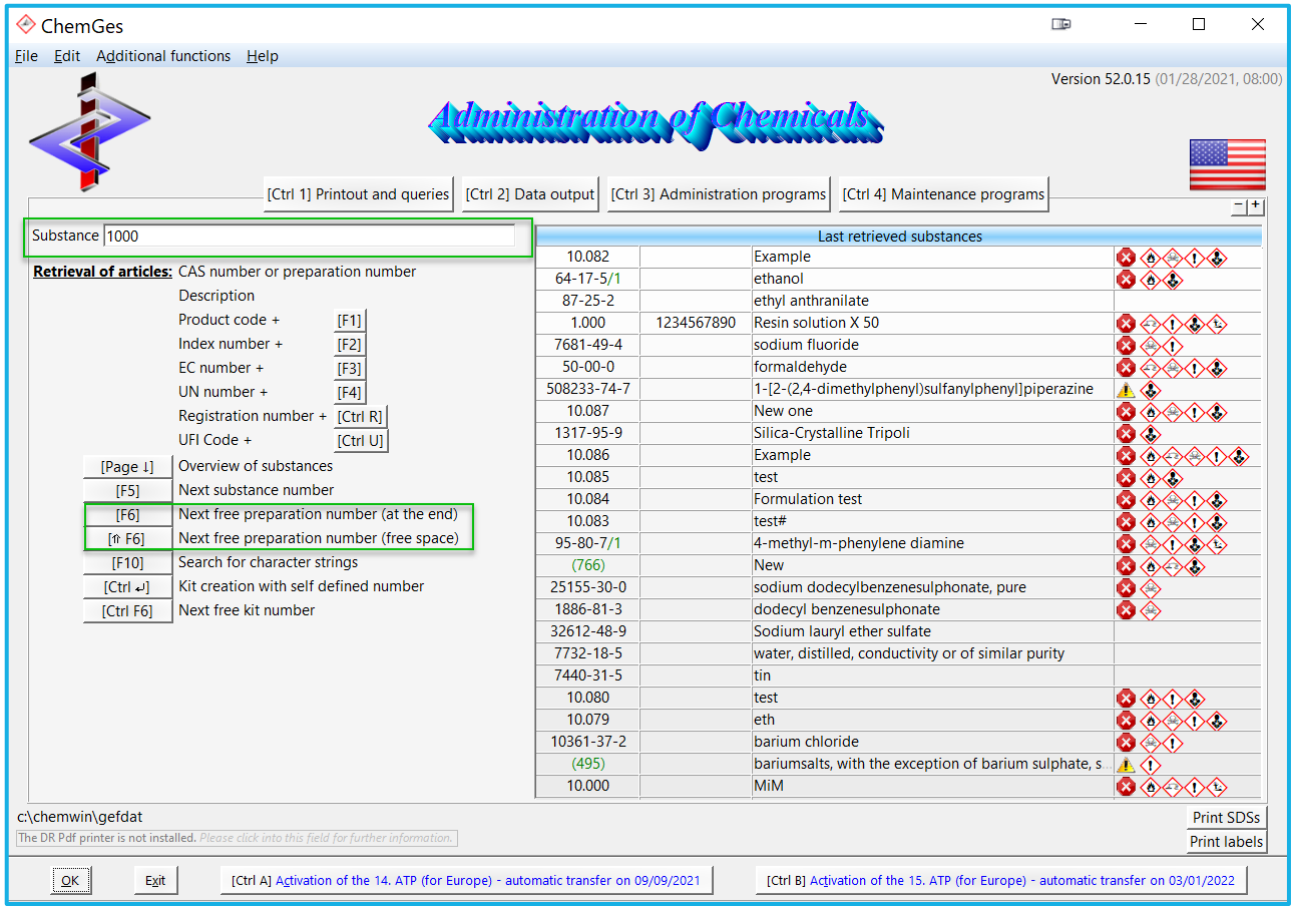
- **Calculation of transport classification**
  - In most cases, it is possible to calculate a specific transport classification, but some classes, as well as often the UN Numbers, require human input. In such cases, ChemGes will make an educated and logical suggestion.
  - Our Programmers, Chemists and Transport experts have created a system for 'calculating' the transport classification based on the data of the preparation (classification, physical data,…) and the data, or lack thereof, of the individual raw materials, where clear formulae are not present in the legislation.
  - We recommend that you review the transport classification output by ChemGes. Feel free to make changes to the transport classification and/or to the settings for transport, if these are based on sound data from another source.
  - Further details about transport classifications in ChemGes, can be found in the manual located on the downloads page of our Website www.dr-software.com or accessible through the *Help* option in ChemGes (*General Help*) or in the **Transport** power point.

Creating a Preparation:

In order to generate a **Preparation**, enter a preparation number in the main screen of ChemGes and press [↵] *Enter* or let ChemGes assign an automatic database entry number:

- via [F6] **Next free preparation number (at the end):** ChemGes assigns the next preparation number after the highest number already used.

- via [⇧] [F6] **Next free preparation number (free space):** ChemGes uses the next available number, after the number 1.



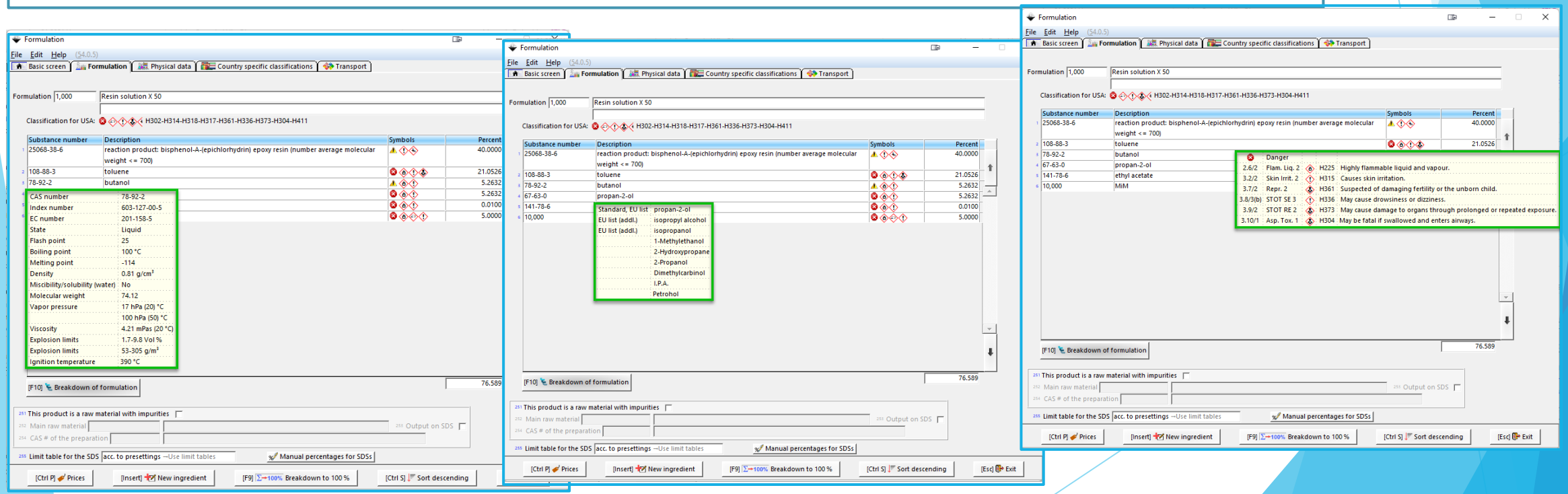
Entering the Formulation:

- Ingredients can be entered by their CAS Number, their name, a partial search string or an internal Product Code.
- For each ingredient, enter the percentage at which it is contained in the preparation:
  - You can enter **exact percentages** (i.e. 10.5%) and / or **ranges** with or without <, >, ≤, ≥ and ~.
  - ChemGes then performs all calculations (classification, physical data,…) using these range values.
  - As long as your formulation is below 100%, ChemGes will show you, when clicking into the percentage field, what the difference to 100% is, allowing you to adopt that number via F1 .

Note: While it is not necessary to enter the formulation to exactly 100%, and higher and lower sums are permitted, the more exact the formulation is, the more exact your calculations can be.

- Even though non-hazardous ingredients do not have to appear on your SDS, it is recommended to input all ingredients when generating the formulation, as this way calculations performed by ChemGes can be more exact.

- By hovering your mouse over the various fields pertaining to each substance, you can view additional information.



Entering Additional Data:

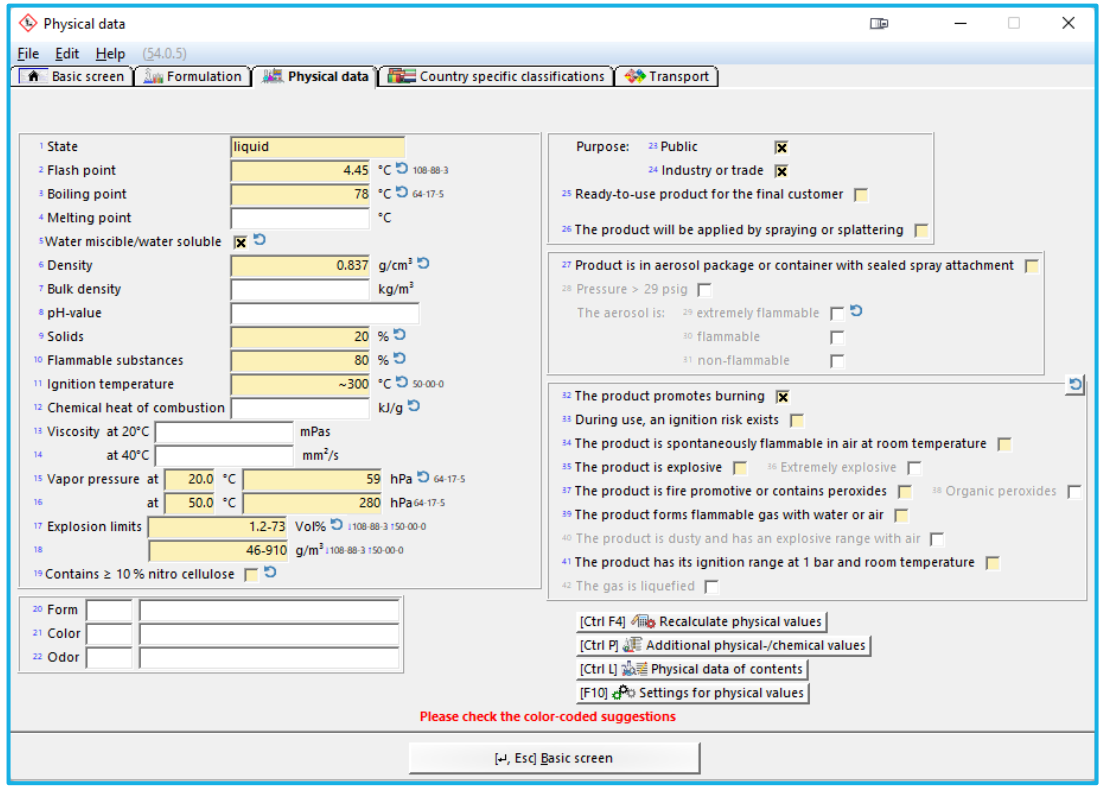
After inputting the formulation, ChemGes automatically takes you to the ***Physical Data*** screen.

- This screen contains calculated and estimated values, based on the raw materials (marked in yellow). The yellow marked fields should be checked and verified by the user.

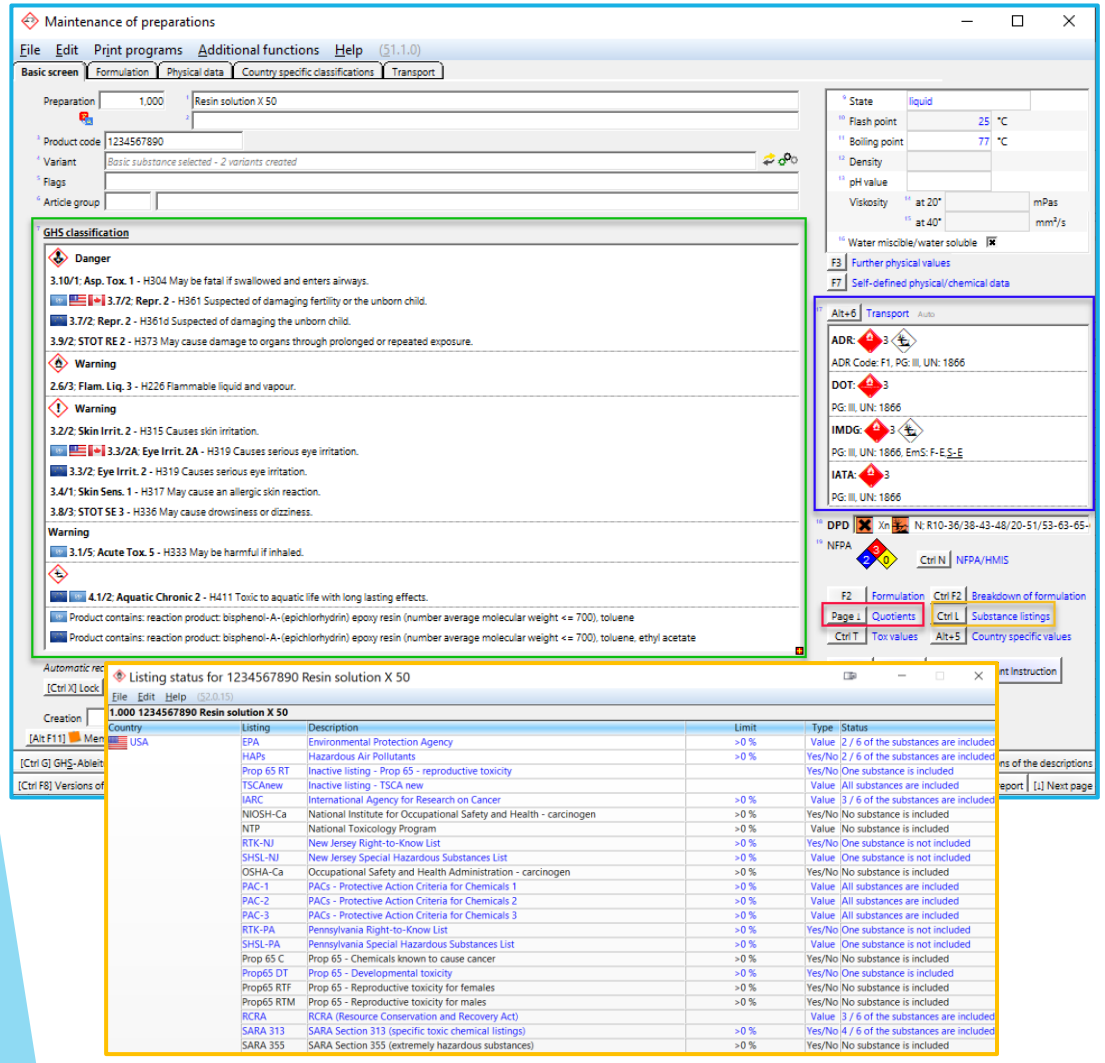
Note:

Certain data, such as the Flash Point, cannot be calculated but can only be properly identified via laboratory tests. In such cases, ChemGes estimates the worst-case-scenario.

- Please input any additional data for your preparation, that you might have.



Calculated results:



GHS Classification: Here you can see the details to the classification results based on the different forms of the GHS. **(see ‚GHS in Brief' Power Point for details)**

Note:
If you wish to change these classifications, that is certainly possible, but be aware that any such changes must have solid reasons to back them up.
As well, since the classification is calculated based on the ingredients and other data, it would be best to change the source of the calculated classification, rather than just the final result, so that the information can be carried through in the future in other formulations as well.

Transport: The transport classification for the ADR, TDG, DOT, IMDG, and IATA are output here. **(see ‚Transport' Power Point for details)**

The Page ↓ **Quotients** button, at the bottom of the screen, lets you examine the calculations that have led to the classification of your preparation. **(see ‚Quotients' Power Point for details)**

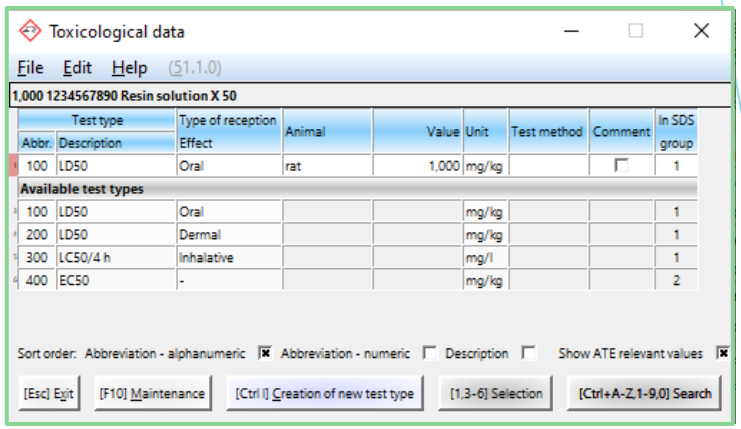
The Ctrl L **Substance Listings** screen shows the listing status of the various ingredients of your formulation.

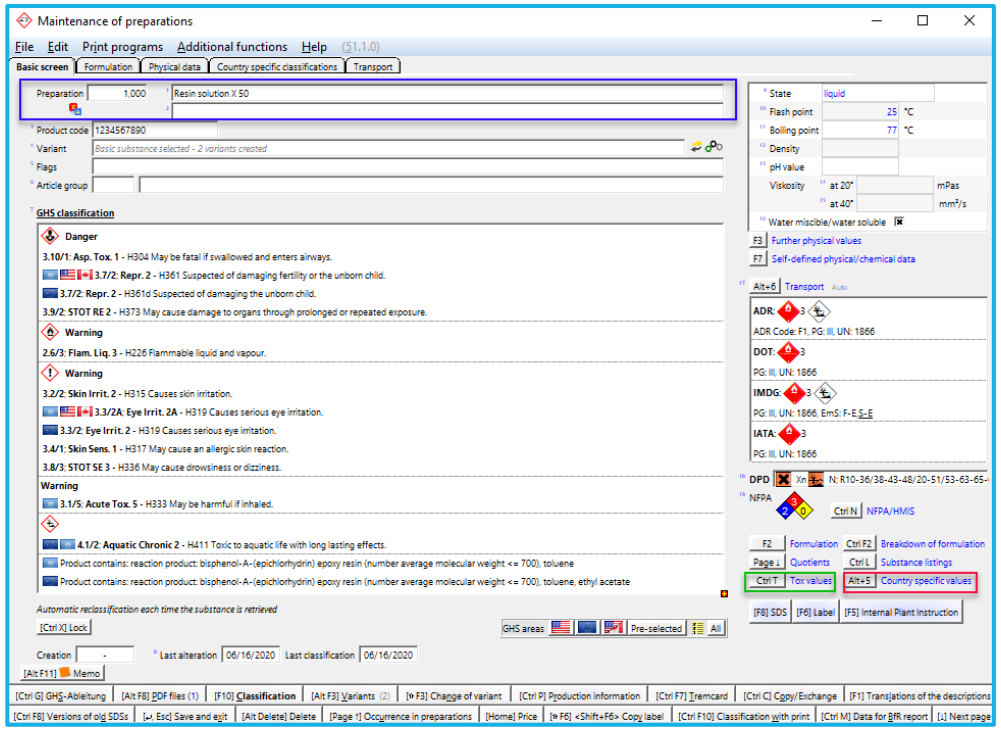
Additional Data:

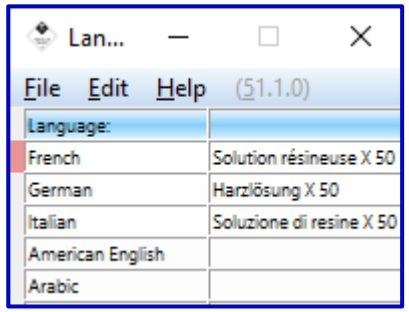
Ctrl T **Tox Values**: Here you can enter Toxicological Value Data for the preparation itself.

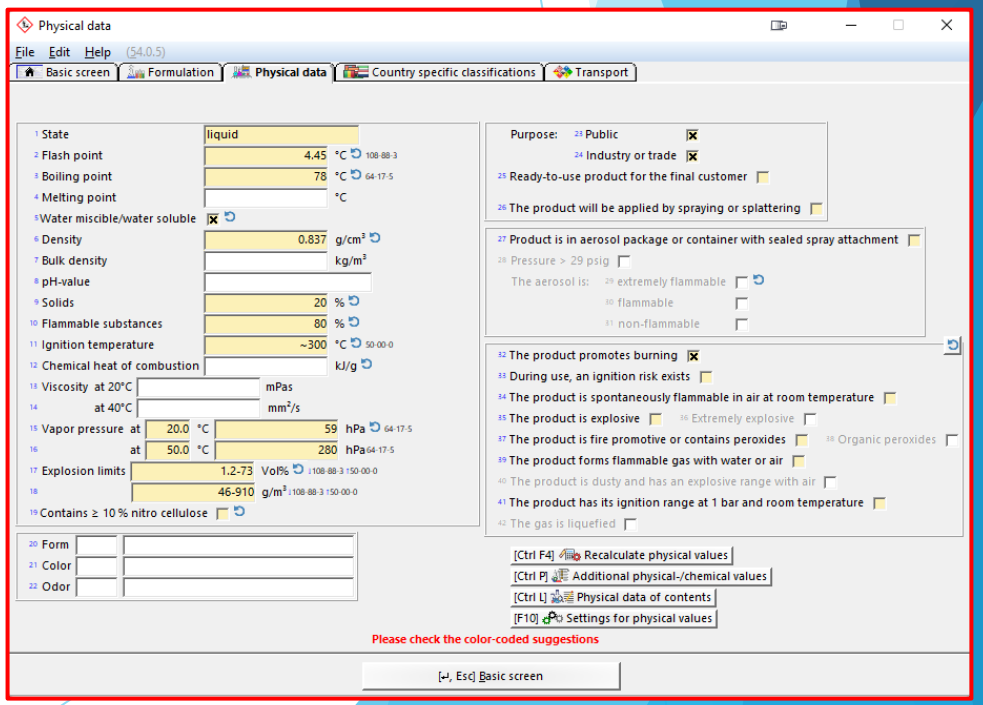
Descriptions: In this field, you can enter/edit the description(s) of the preparation and by clicking on the you can define the translations thereof.

Alt 5 **Country specific values:** This screen allows for the input and viewing of country specific data, such as VOCs or Water Hazard Class.









Using a preparation as an Intermediate:

General Information:

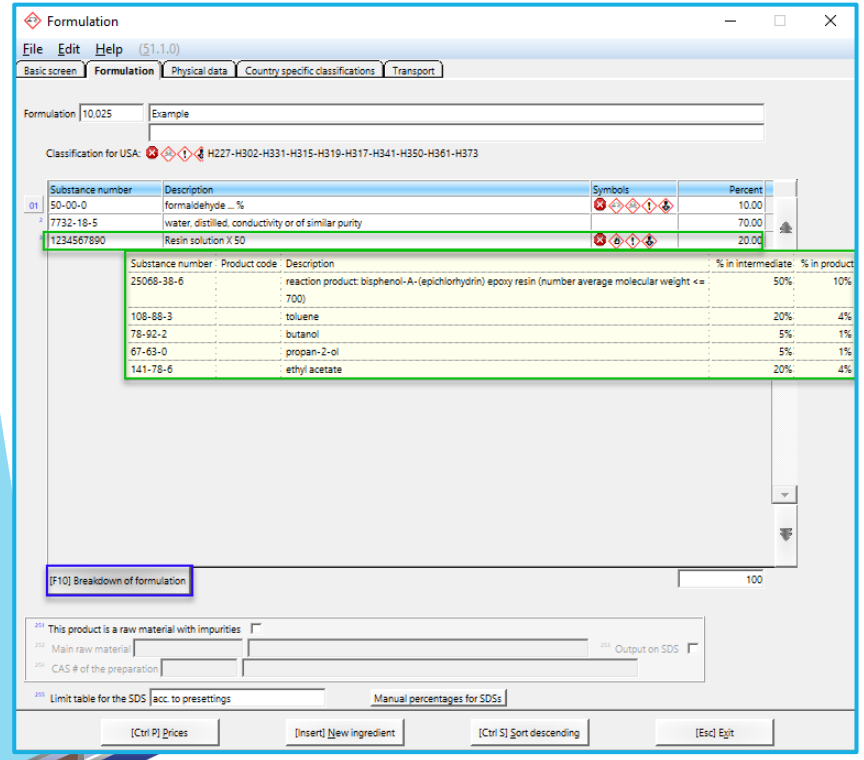
An intermediate is a preparation that is used as an ingredient in a preparation.

Therefore, intermediates must first be generated in ChemGes as preparations, so that, as legislatively required, the final formulation can be broken down to the raw material level and the proper data applied to the legislative formulae.

Note:

When using intermediates, the following needs to be taken into consideration:

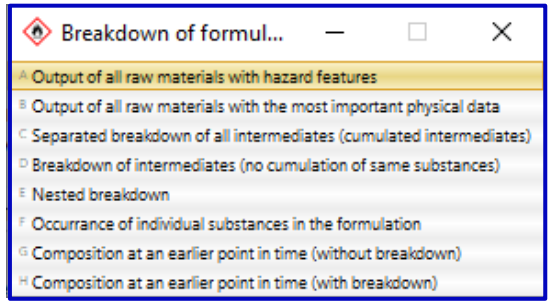
- As legislative required, the classification needs to be calculated at the raw material level. Therefore, a classification change is to also be applied at the raw material level.

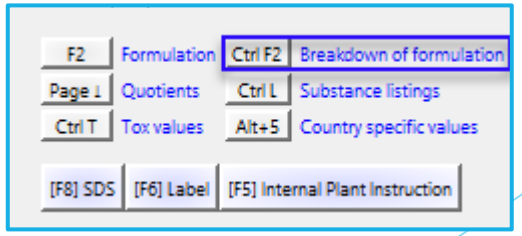


The option F10 **Breakdown of formulation** allows for an easy overview of the ingredients contained in the whole preparation, including those part of the intermediate preparation(s).

Note:

The **Breakdown of formulation** can also be accessed in the *Maintenance of preparations* via Ctrl F2.





More detailed Information can be found in the Manual to ChemGes

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