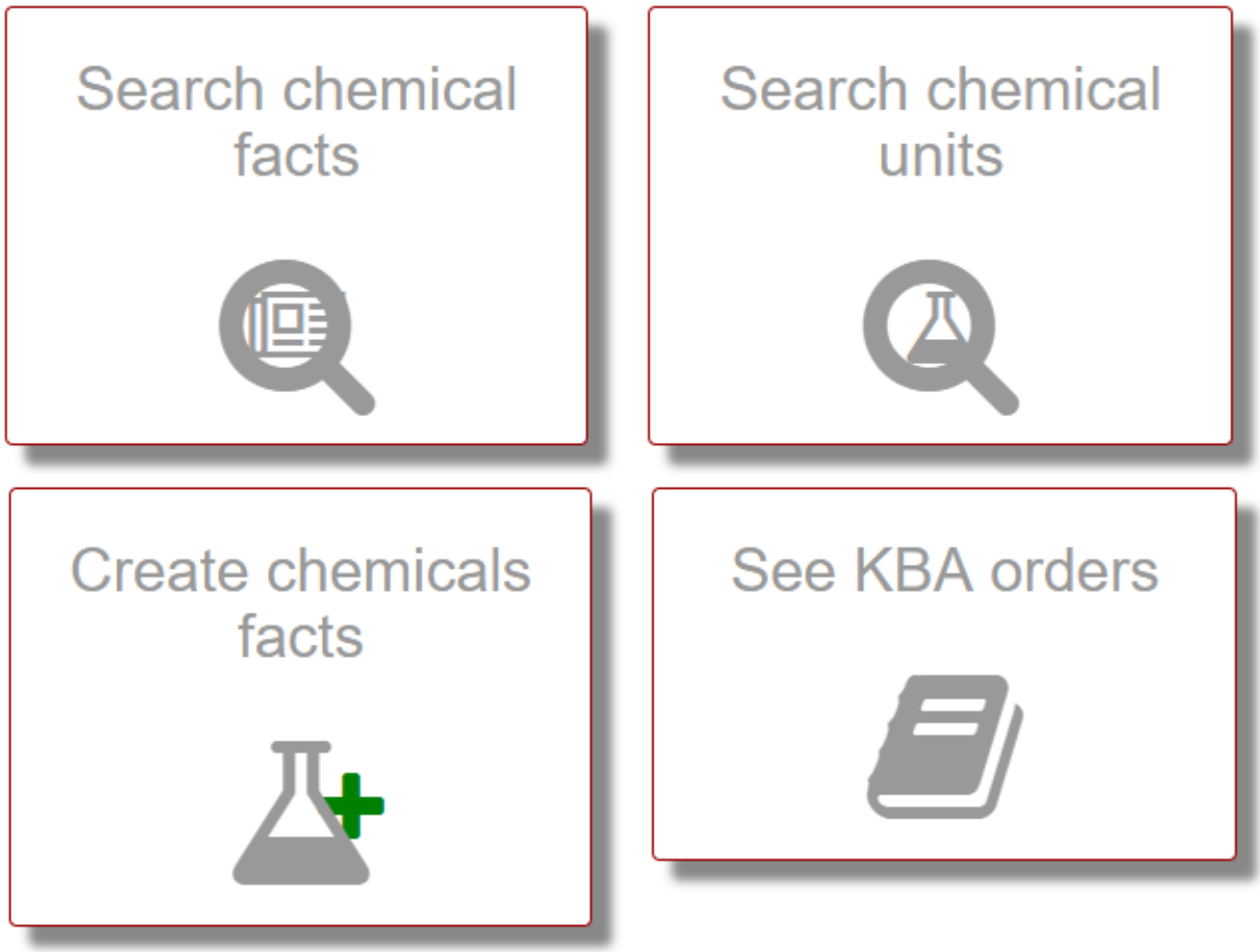


Manual for Kemibrug

CONTENTS (CLICK ON A HEADING TO JUMP TO THAT SECTION)

TIP: CLICK ON THE HEADING TO RETURN TO THE TABLE OF CONTENTS

1. INTRODUCTION TO THE MANUAL

This manual is a guide to using the Kemibrug.dk IT system.

Explanations of concepts and more detailed information on safety data sheets can be found under the 'Instructions and other information from Kemibrug's menu item at Kemibrug.dk.

The IT system has a quite intuitive design, and there are some blue 'i' information circles which offer further information when you hover your mouse over them. This manual can be therefore used as a reference if any uncertainties or problems arise while you are getting to know the system. To search in the manual, simply use the search function in your PDF Reader to search for the specific word or phrase you are seeking help with.

The manual is structured to match the menu items (on the left side) at Kemibrug.dk. The manual starts by going through the menu items that are available to all users in Kemibrug, and then moves on to the menu items that require special privileges. Icons have been placed alongside each chapter explaining a menu item, showing which users can see the menu item.

Kemibrug is a partnership between Aalborg University, the University of Copenhagen, the University of Southern Denmark, and DTU. The safety data sheets have been prepared by DTU and the University of Southern Denmark. Kemibrug has highly skilled staff who monitor new legislation, search the literature, and maintain good dialogue with chemical suppliers.

Kemibrug's safety data sheets are structured into nine points that contain the same information as the suppliers' 16-point instructions. See 'SDS guide' in the 'Instructions and other information from Kemibrug's menu item for more information.

TIP: CLICK ON THE HEADING TO RETURN TO THE TABLE OF CONTENTS

2. INTRODUCTION TO KEMIBRUG

The Kemibrug IT system consists of three parts:

1. A database containing over 20,000 safety data sheets
2. The facility to add local instructions and rules, and thereby build up a workplace assessment
3. A system for registering stocks of chemicals

Kemibrug helps users to observe OHS legislation, by making it easy to find documentation for the chemicals they use locally. Kemibrug users can also subscribe to receiving changes in safety data sheets, so they can stay abreast of changes in the legislation for various chemicals (see Chapter 4.3.2 SUBSCRIBE).

It is also possible to search based on what chemicals are subject to special rules, for example in relation to fire hazards, or the rules covering carcinogenic and mutagenic substances.

2.1 USER ROLES AND LOGGING IN:

There are four standard user roles that provide access to various features of the system. The roles are structured hierarchically. This means that each role can perform a subset of the functions that the role with the highest level is permitted to do. See the explanations below:

Basic user: e.g. a student. The basic role allows users to find safety data sheets, make labels, and perform CLP calculations.

Normal user: e.g. project students or course participants. Normal users can do the same things as 'Basic users', and can also see the locations of chemicals.

Editor: e.g. the person responsible for a laboratory. Editors can perform the same functions as 'Normal users', and can also edit and move chemical stocks, and change and add local notes.

Administrator: e.g. a security officer or secretary. Administrators can perform the same functions as 'Editors', and can also create, edit, and move user roles.

User are assigned one or more of the four roles at the outset. On the start screen, you may therefore be asked to choose which office or role you wish to log in using. If you need other privileges, these must be assigned by the administrator of the relevant office.

In the following sections, the icon is shown for the minimum role that is required to in order to use the menu item.

2.2 LANGUAGE SELECTION

Kemibrug.dk is available in both Danish and English. To select the desired language, click on the flag in the top-right corner of the page.

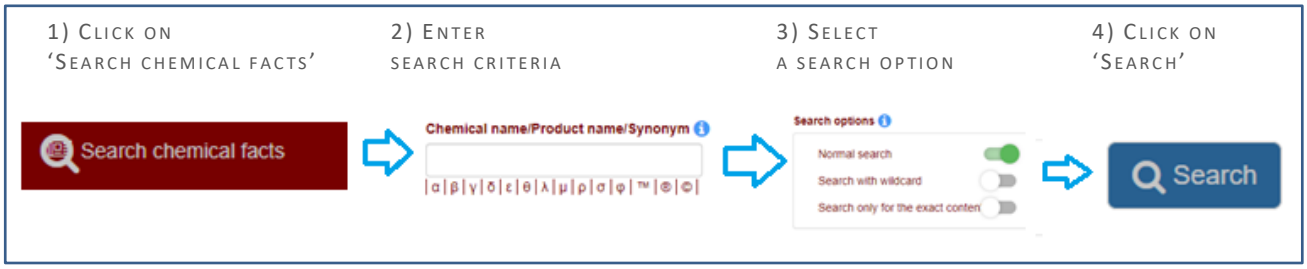
Safety data sheets (SDSs) are translated into English by default. In some cases, some parts of the safety data sheet may not have been translated. If you come across any mistakes like this, please request a translation by clicking on the ‘Order revision’ link inside the SDS in Kemibrug.

TIP: CLICK ON THE HEADINGS TO JUMP TO THE CHAPTERS THAT EXPLAIN THE FEATURES

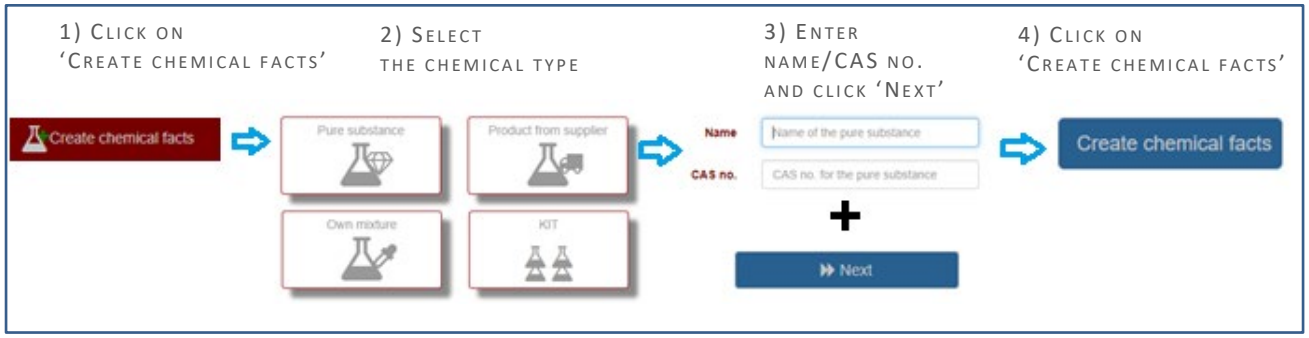
3. QUICK GUIDE

These give you an overview of the most common functions you need in Kemibrug. If you click on the heading for a given function, you will jump to the chapter in the manual that explains the function in detail.

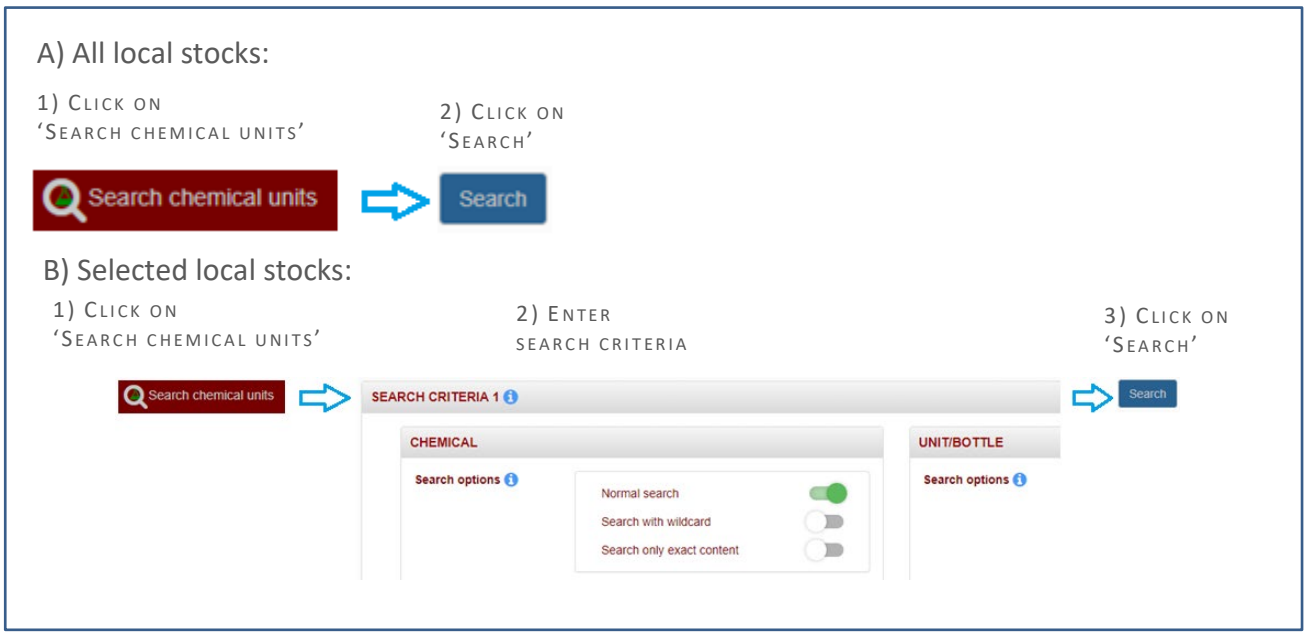
Find SDS (Chapter 4.1):



Create chemical facts (Chapter 5.1):



Search local stocks (Chapter6.2):



Edit local stocks (Chapter 6.3 and following):

1) Click on 'Search chemical units'

2) Enter search criteria

3) Click on 'Search'

4) Click on the icon under 'Edit' in the results list

NB: To write down, divide, or move a local stock, follow the same first three steps, but in step 4, click on the icon for 'Write down' or 'Divide', or tick the 'Move' box.

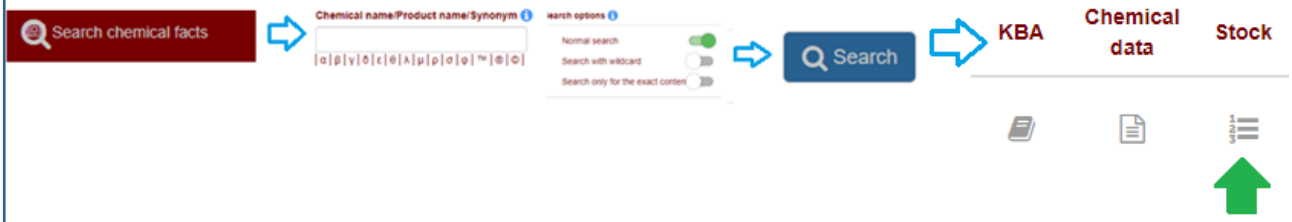
Create local stock (Chapter6.8):

1) Click on 'Search chemical facts'

2) Enter search criteria

3) Click on 'Search'

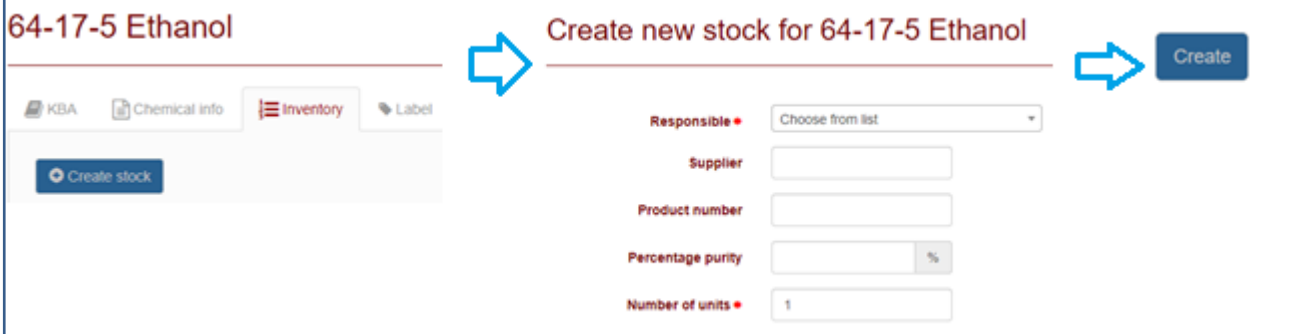
4) Click on the icon under 'Stock'



5) Click on 'Create stock'

6) Fill in the fields

7) Click on 'Create'



TIP: THESE ICONS SHOW YOU WHICH USERS HAVE ACCESS TO THIS MENU ITEM.

4. CHEMICALS SEARCH

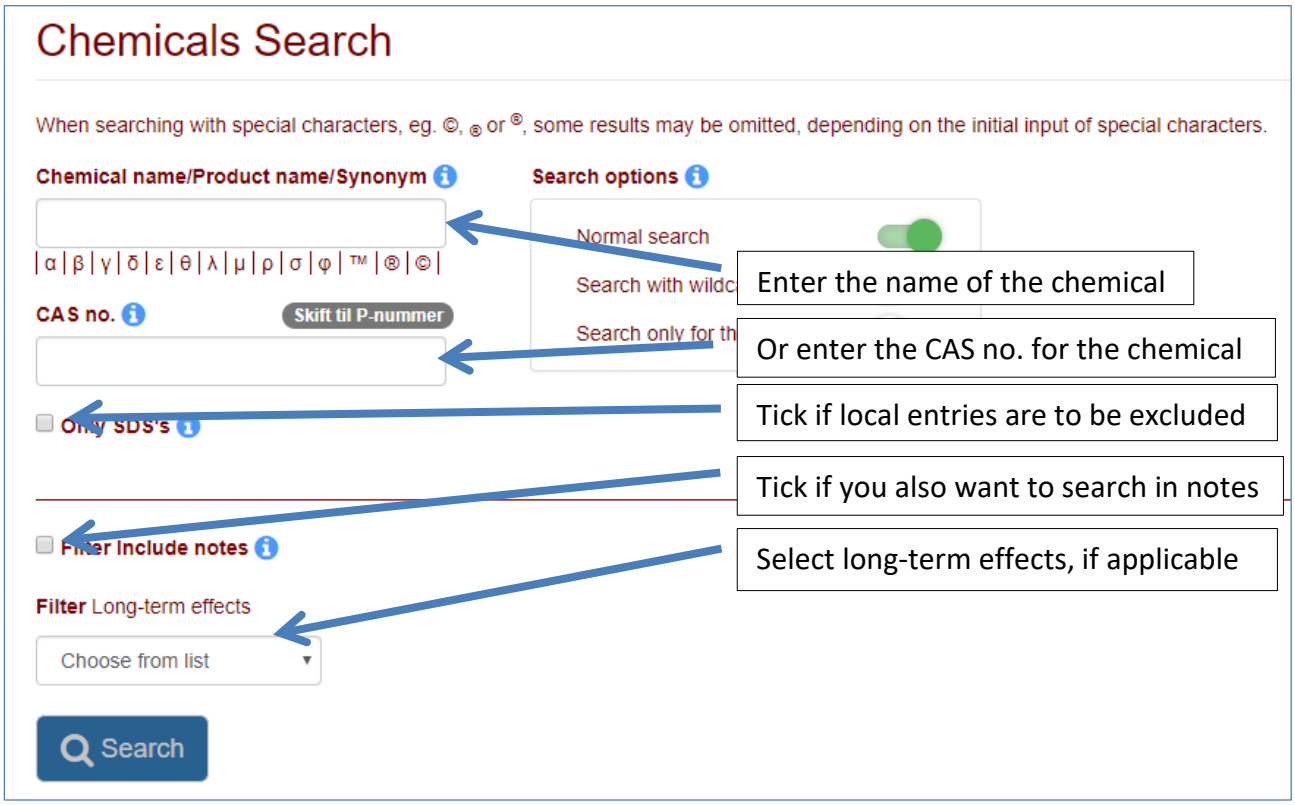
USERS:

Summary of what this chapter contains

4.1 FIND SAFETY DATA SHEETS (SDSS) AND OTHER INFORMATION

If you want to find information about a chemical (safety data sheet or chemical data), go to the 'Chemicals search' menu item. The screen for this menu item is shown in FIGUR 4-1.

FIGURE 4-1: 'CHEMICALS SEARCH' MENU ITEM. SEE THE ARROWS AND TEXT BOXES FOR DETAILS.



It is not possible to sort your search results in this version of Kemibrug. The search must therefore be quite precise, to avoid spending too long looking for the correct safety data sheet.

The three toggle buttons under ‘Search options’ allow you to make the search more precise. This is explained below.

4.1.1 Search options:

If you want to make your search more precise, you can use one of the three search options—‘Normal search’, ‘Search with wildcard’, or ‘Search only for the exact content’ as shown in the screenshot below. To search using one of the three search options, simply click on the button to the right of the search option. NB: Searches using a CAS number will give the same result irrespective of the search option settings.

4.1.1.1 Normal search

If you want to perform a normal search, simply click on the button to the right of this option, as shown in Figur 4-2, and enter the name of the chemical:

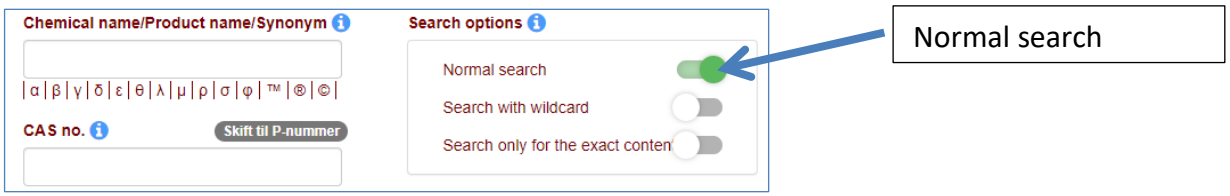


Figure 4-2: Search options under ‘Chemicals search’, showing ‘Normal Search’ selected

If you search for ‘arsenic’ with ‘Normal search’ switched on, you will get six search results which contain ‘arsenic’ in the name as shown in Figur 4-3:

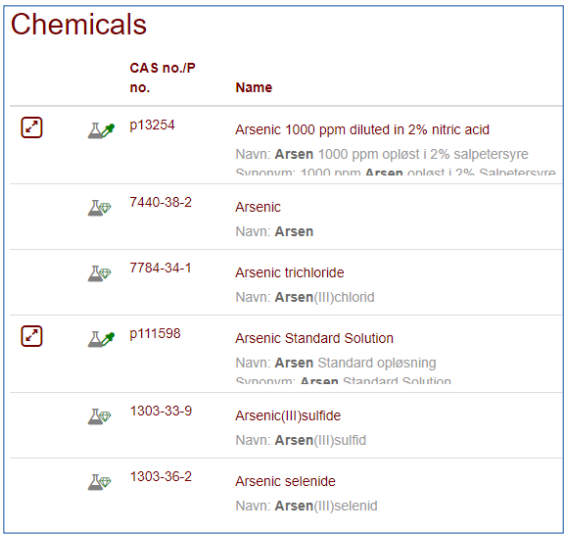


Figure 4-3: Search results under ‘Chemicals search’ for a search on ‘arsenic’ with ‘Normal search’ selected

This type of search can be used if you want to search broadly.

If you want to search using two words, such as “Sodium Chloride”, then you must enclose the words in double quotes. Otherwise the system will search for chemicals with names containing *either* ‘Sodium’ *or* ‘Chloride’

4.1.1.2 Searches using * (wildcard)

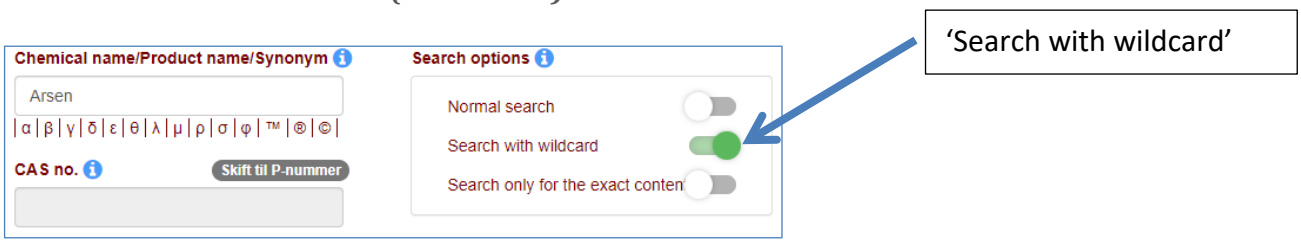


Figure 4-4: Search options under ‘Chemicals search’, showing ‘Search with wildcard’ selected

Searching using a wildcard means that the word you are searching for may be combined with other characters or letters in the results. Figur 4-4 shows a search where ‘Search with wildcard’ has been selected. A wildcard search on the text ‘arsen’ will return around 80 search results: These are all the entries that contain ‘arsen’ in the name, e.g. ‘Gallium *arsen*ide’, ‘Di*arsen*ic trioxide’, etc. This search example is shown in Figur 4-5:

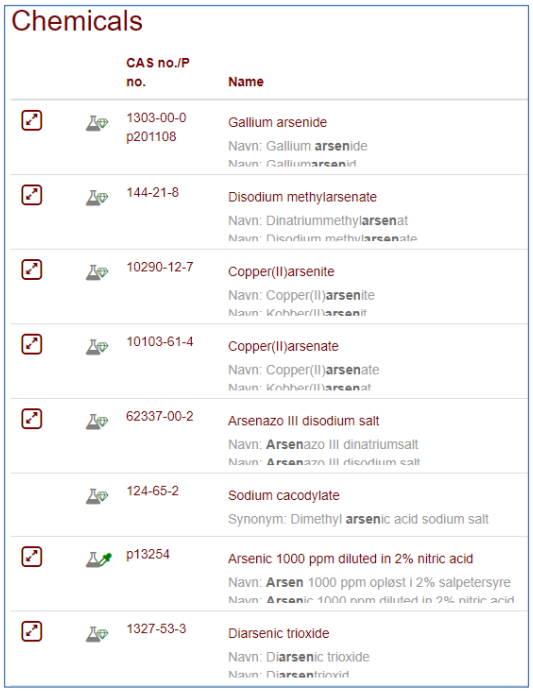


Figure 4-5: Search results under ‘Chemicals search’ for a search on ‘arsen’ with ‘Search with wildcard’ selected

The wildcard search returns the most results and can be used if the normal search does not return enough results, or if only part of the chemical name is known.

It can be useful to search for a string like “Hydrochloric acid 1” in double quotes and with the wildcard enabled, to find multiple hydrochloric acid dilutions. For example, the results will include ‘hydrochloric acid 10%’ and ‘hydrochloric acid 12M’

You cannot search on CAS numbers with the wildcard.

4.1.1.3 Search only for the exact content

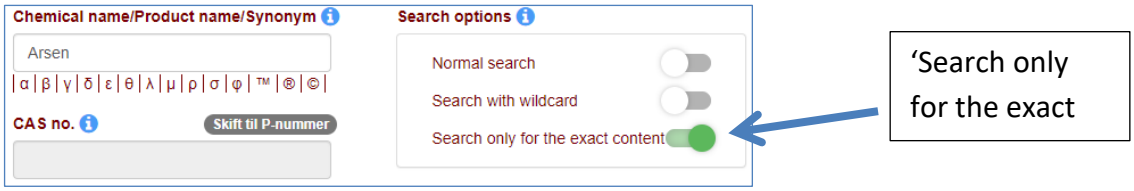


Figure 4-6: Search options under ‘Chemicals search’, showing ‘Search only for the exact content’ selected

The ‘Search only for the exact content’ search option, shown in Figur 4-6, finds only what you have typed in the field. For example, if you search for ‘arsenic’, the search will return just one result, as shown in Figur 4-7.

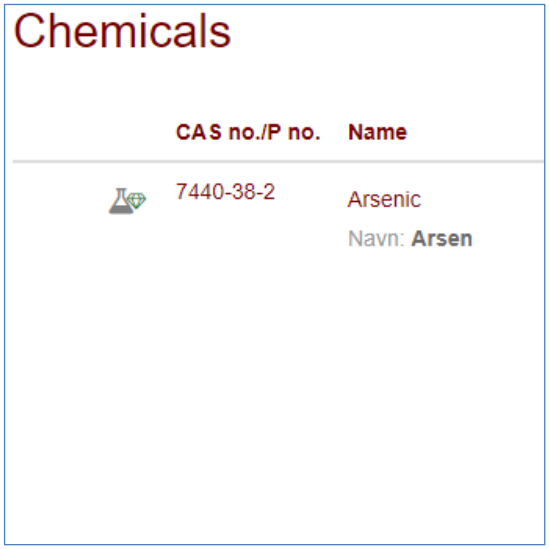


Figure 4-7: Search results under ‘Chemicals search’ for a search on ‘arsenic’ with ‘Search only for the exact content’ selected

Entries like ‘Arsenic 1000 ppm in nitric acid’ will *not* be included in the results. The ‘Search only for the exact content’ search option is very useful if you know the exact name of the chemical you are looking for. The same chemical might sometimes be registered as both an SDS and a local entry, but this kind of search will never return an overwhelming number of results, as shown in FIGUR 4-8 for a search on ‘water’.

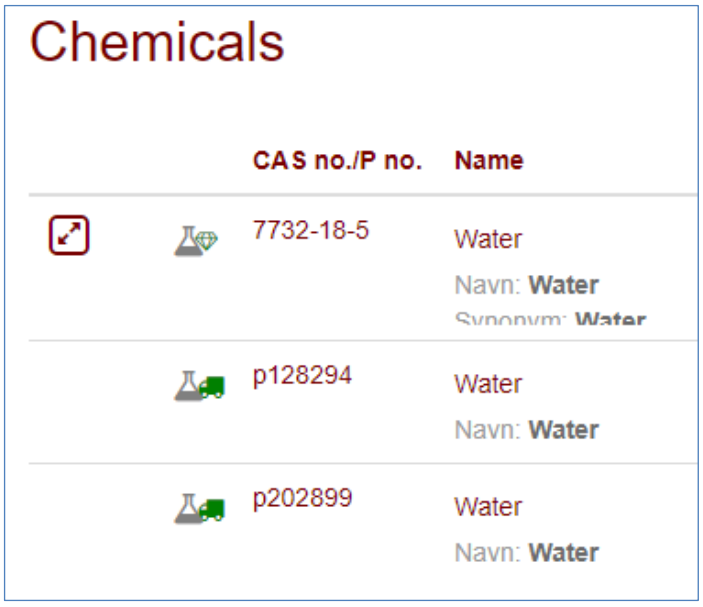


FIGURE 4-8: SEARCH RESULTS UNDER ‘CHEMICALS SEARCH’ FOR A SEARCH ON ‘WATER’ WITH ‘SEARCH ONLY FOR THE EXACT CONTENT’ SELECTED

4.2 Search results

After you press the 'Search' button, a results list will be displayed, as shown in Figur 4-9.

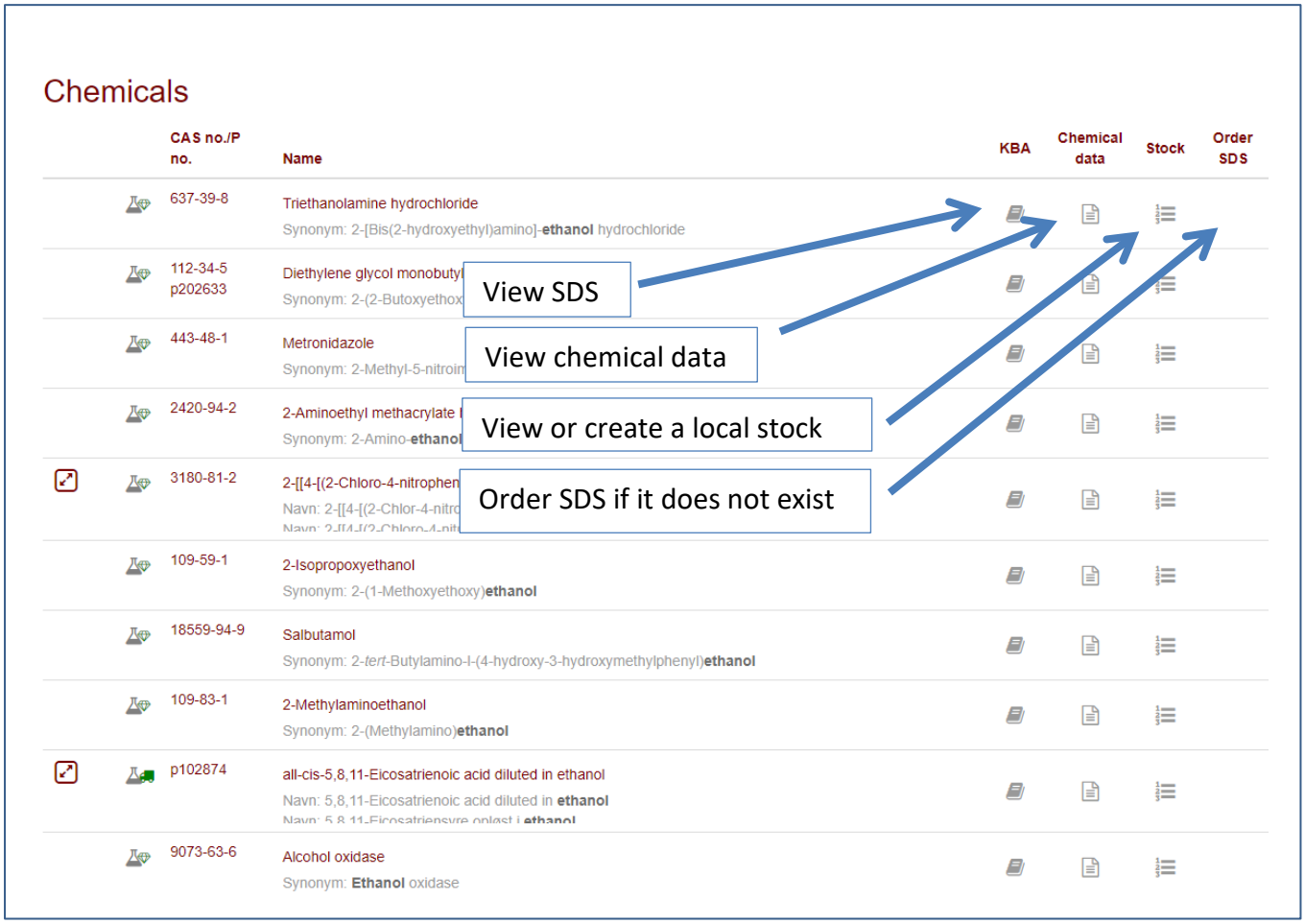


Figure 4-9: Results for a search on 'ethanol' under the 'Chemicals search' menu item. The arrows in the figure point out various functions in the results list.

If you scroll to the bottom of the list, the search returns the next 30 chemicals in the database.

Each search result has a chemical name, shown in the 'Name' column. There is an icon on the left side of each result that shows the type of chemical. The icons have the following meanings:

CAS chemical: A pure substance to which no other chemicals have been added

Own mixture: A mixture of chemicals made in our own laboratory

Product: A mixture purchased from a supplier

Kit: A set of various products.

FIGURE 4-10: LIST OF ENTRY TYPES IN KEMIBRUG

This symbol is displayed next to some chemicals:

The symbol means 'fold out'. If there are more synonyms than can be shown on the line, the other lines can be displayed by clicking on the

If you want to be able to find a particular SDS more easily among several with similar names, you can add a name in notes under 'Synonym'.

For example, if you search for 'Lugol', about 12 different SDSs are listed. If there is a particular one you want to be able to find again, you can enter a local note under synonyms using a name you can use later. 'DNA-group' has been used here as an example:

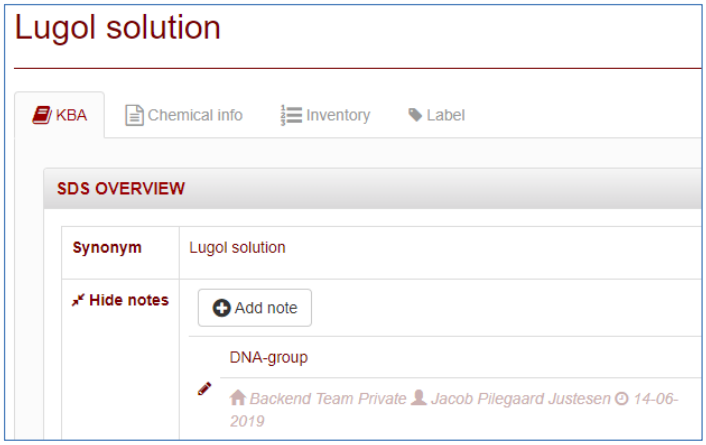


FIGURE 4-11: ADD A LOCAL NOTE TO A SYNONYM TO MAKE IT EASIER TO SEARCH FOR THE OFFICE'S SDSS

You will then be able to find it using 'Chemicals search' and the 'Filter include notes' option:

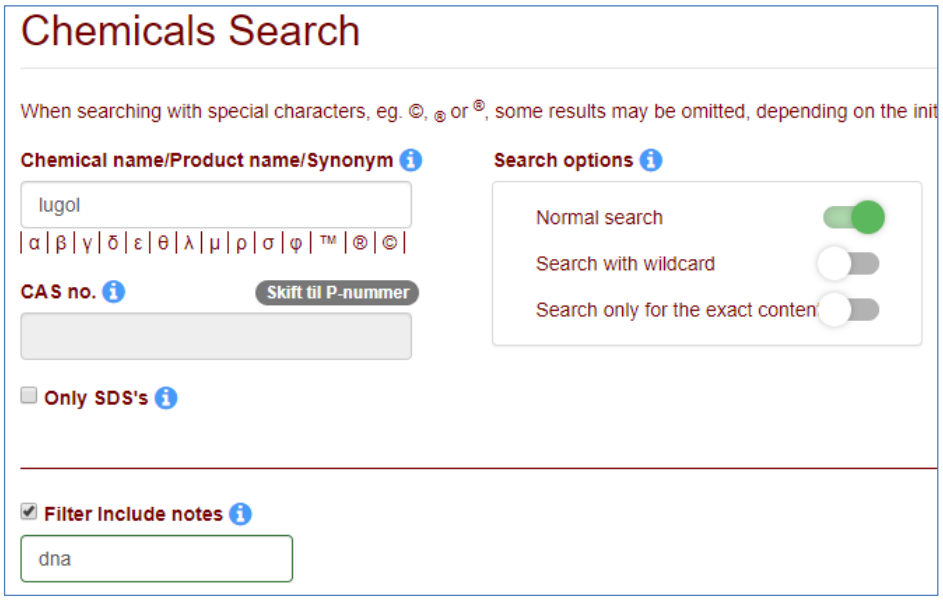


FIGURE 4-12: SEARCHING USING LOCAL NOTES

Using this method, only one result is found:

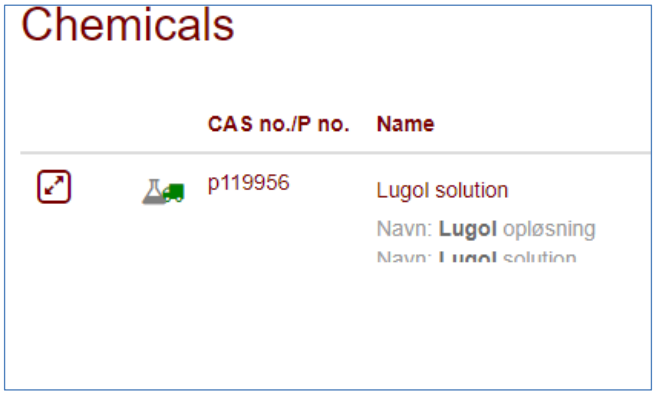


FIGURE 4-13: THE RESULT LIST IS LIMITED BECAUSE THE 'FILTER INCLUDE NOTES' OPTION WAS SET.

If a search for a chemical does not find any result, you have the option to enter the chemical in the system. You do this by clicking on 'Create' under the message shown in FIGUR 4-14.

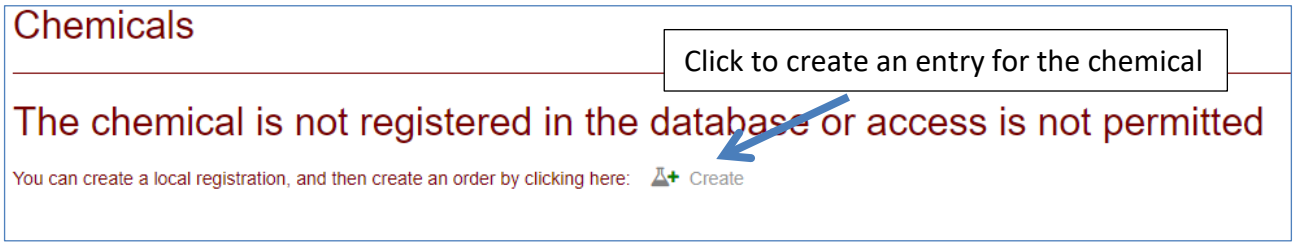


FIGURE 4-14: WHEN A SEARCH UNDER 'CHEMICALS SEARCH' DOES NOT PRODUCE ANY RESULTS, THIS SCREEN IS DISPLAYED. KEMIBRUG ALLOWS YOU TO CREATE AN ENTRY FOR THE CHEMICAL YOU HAVE SEARCHED FOR.

After clicking, follow the instructions in chapter 5, CREATE CHEMICAL FACTS.

4.3 VIEW SDS, CHEMICAL DATA, ETC.

If you click on the book icon to the right of the name column in the list of search results (see the results list in FIGUR 4-9 for ethanol), you will be directed to the SDS for the given chemical. This is shown in FIGUR 4-15 for 1-Propanol:

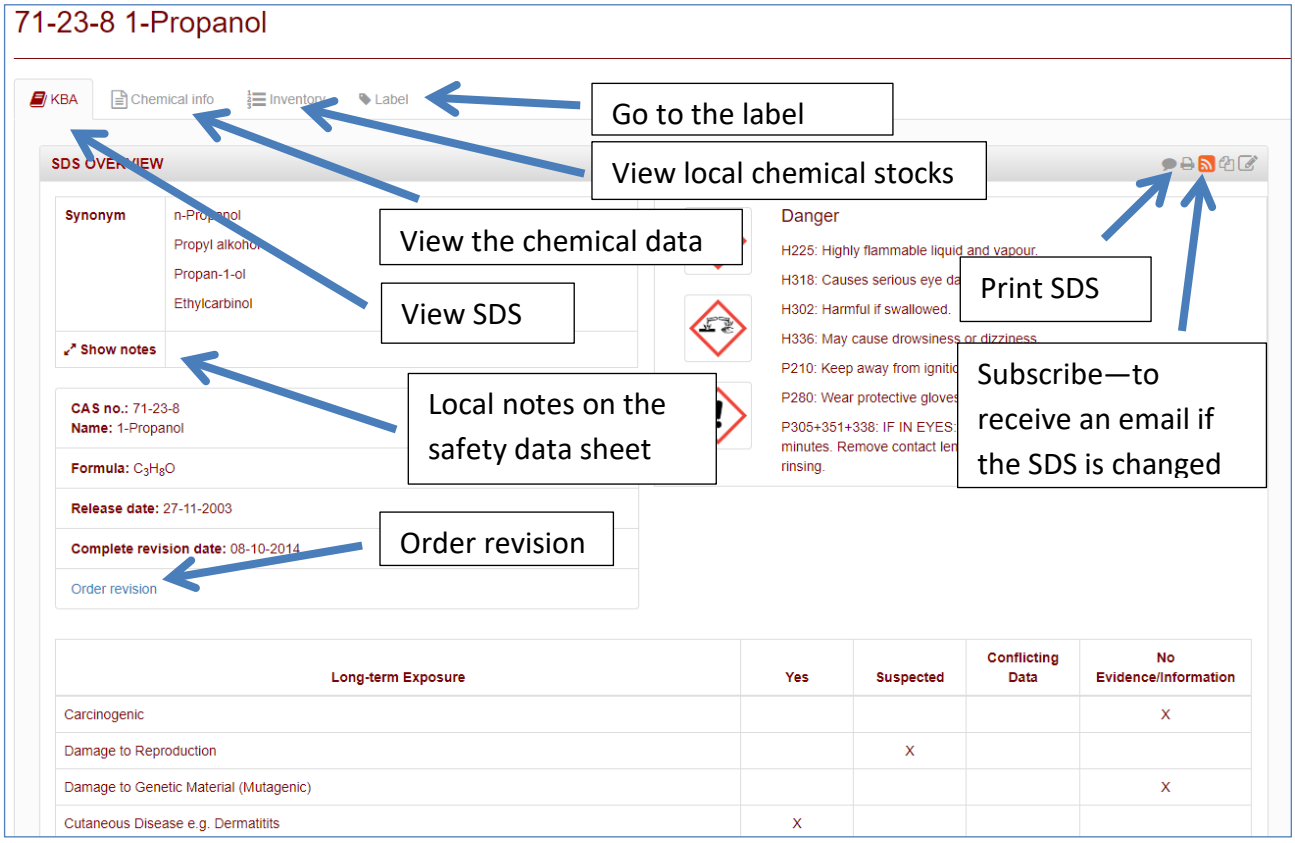


FIGURE 4-15: SDS FOR 1-PROPANOL. YOU CAN ALSO USE THE TOP TABS ON THIS SCREEN TO SEE CHEMICAL DATA OR THE LOCAL CHEMICAL STOCKS, OR GO TO THE LABEL MODULE. THE ARROWS IN THE FIGURE POINT OUT VARIOUS FUNCTIONS ON THE SCREEN.

If you click on the 'Chemical data' tab under the heading, you will be directed to the chemical data for the given chemical (DL-Propanol in this case in FIGUR 4-16):

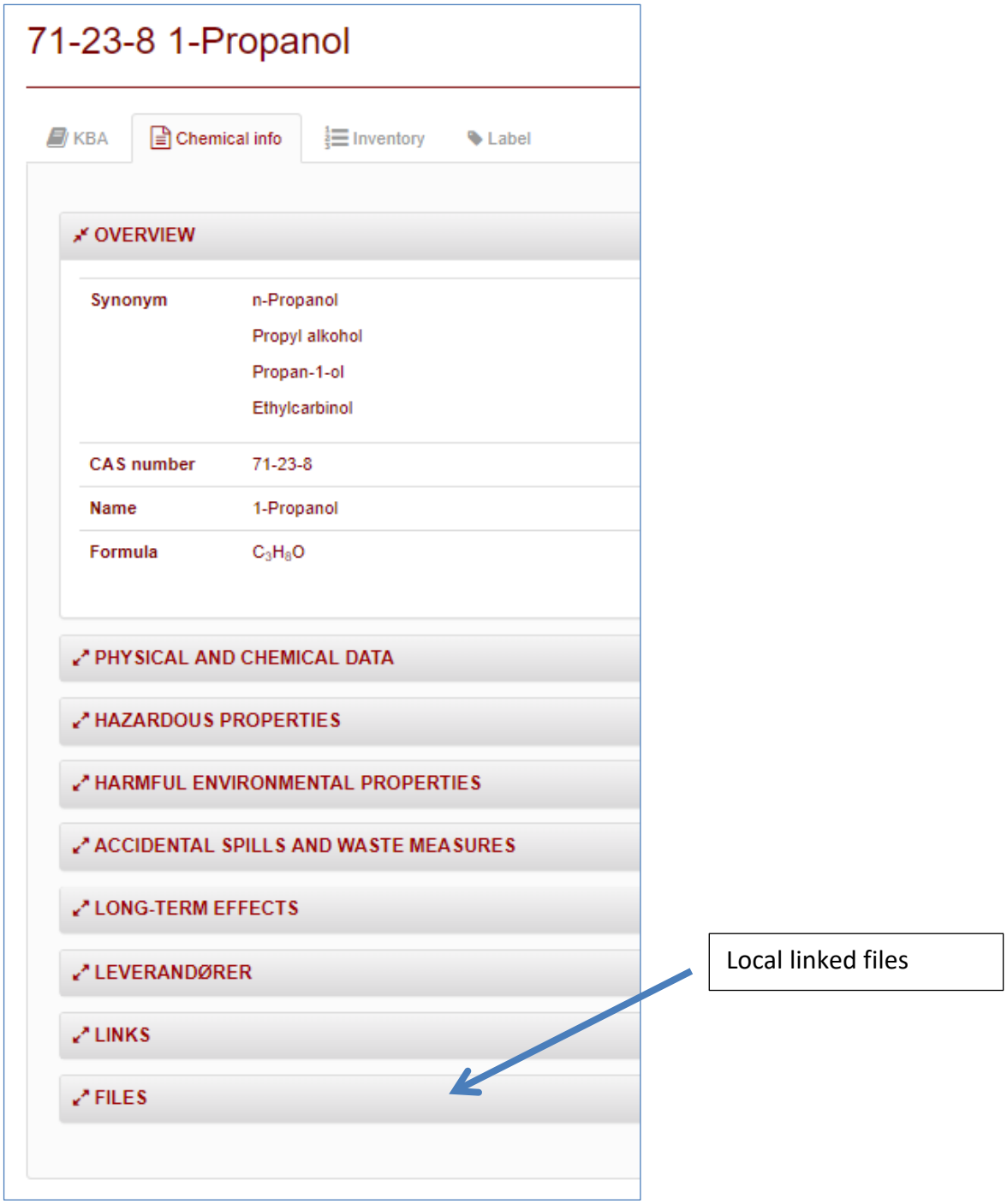


FIGURE 4-16: INFORMATION IS SHOWN HERE FOR 1-PROPANOL. THE 'CHEMICAL DATA' TAB HAS BEEN SELECTED AT THE TOP, AND THE ARROW EXPLAIN THE 'FILES' TAB.

The safety data sheets have normally been translated into English, and this version can be found by clicking on the British flag in the upper right corner of the screen.

In some cases, some parts of the safety data sheet may not have been translated. If you see a mistake like this, we would appreciate it if you request a translation by clicking on 'Order revision'. This is explained in the next section (4.3.1 ORDER REVISION)

4.3.1 ORDER REVISION

You can request that an SDS be revised, if something is missing or you need an English translation, etc. This can be done by selecting the 'SDS' tab under the heading of the relevant chemical, and then clicking on 'Order revision' under 'SDS overview' (see FIGUR 4-17).

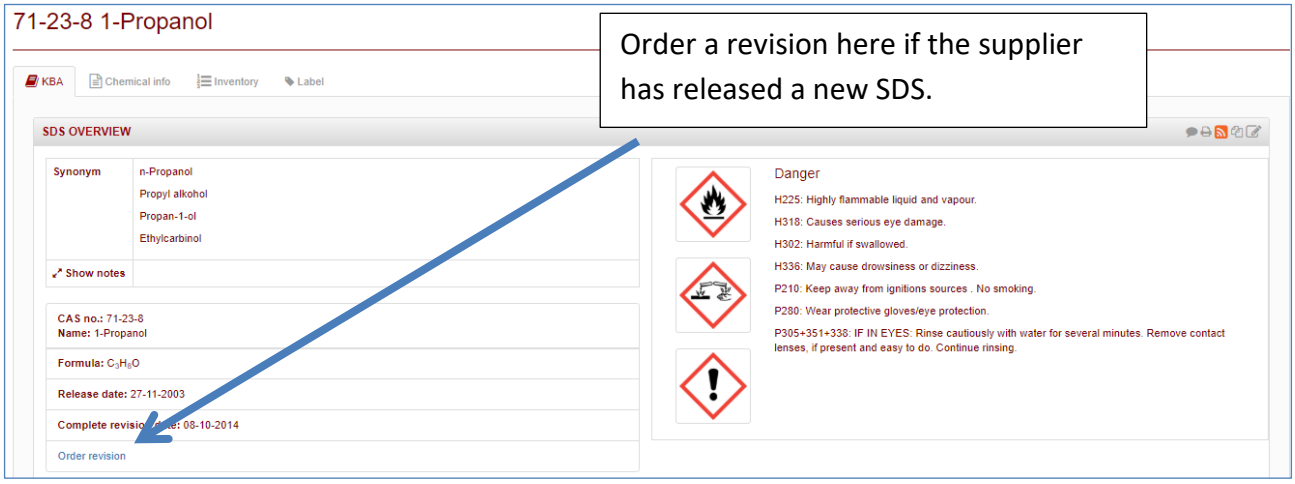


FIGURE 4-17: INFORMATION FOR 1-PROPANOL, SHOWING THE TOP 'SDS' TAB SELECTED. YOU CAN ORDER A REVISION FROM THIS SCREEN. THE ARROW EXPLAINS THIS FURTHER.

When you click on 'Order revision', a pop-up window appears (FIGUR 4-18). You can enter what needs to be changed in the 'Remark' field. For example, you can enter 'English' if you want an English translation.

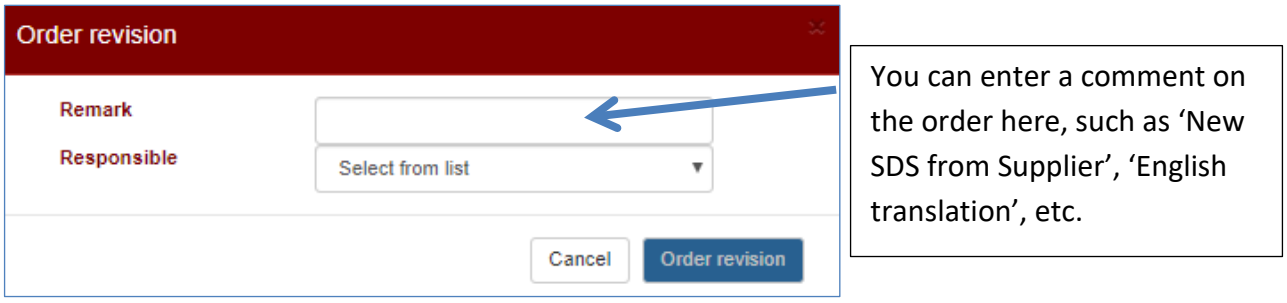


FIGURE 4-18: POP-UP WINDOW THAT IS DISPLAYED WHEN YOU CLICK ON 'ORDER REVISION' FROM WITHIN AN SDS (Figur 4-17). THE ARROW AND BOX EXPLAIN MORE ABOUT THE 'REMARK' FIELD.

Unfortunately, the new SDS cannot be attached directly to the revision order. You have to select 'View SDS orders' from the menu, find your order and click on 'Edit':

FIGURE 4-19: LIST OF THE SDSS ORDERED IN THE ORGANIZATION.

In the edit window, you can add files, links, and notes to your order:

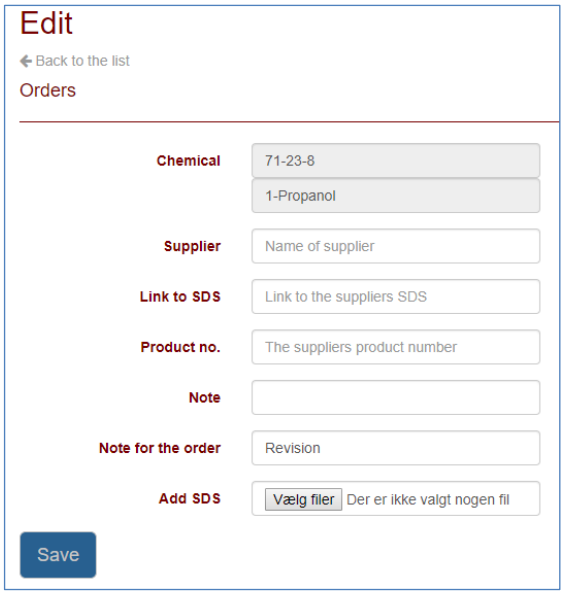


FIGURE 4-20: EDIT WINDOW FOR ORDERS. YOU CAN ADD LINKS, FILES, AND NOTES TO YOUR ORDER HERE.

4.3.2 SUBSCRIBE

You can subscribe to notifications for a chemical. This means that you will receive an email or text message every time a new SDS is added for the chemical. This includes changes in legislation relating to the substance, which the user is obligated to remain informed of (see chapter 1).

You can subscribe by clicking on the orange symbol directly in the results lists (e.g. see the orange button in Figure FIGUR 4-9), or under the SDS or chemical data for each substance (e.g. see the orange icon in FIGUR 4-17). The orange symbol looks like this:

If you click on the symbol, the following pop-up window will be displayed (FIGUR 4-21).

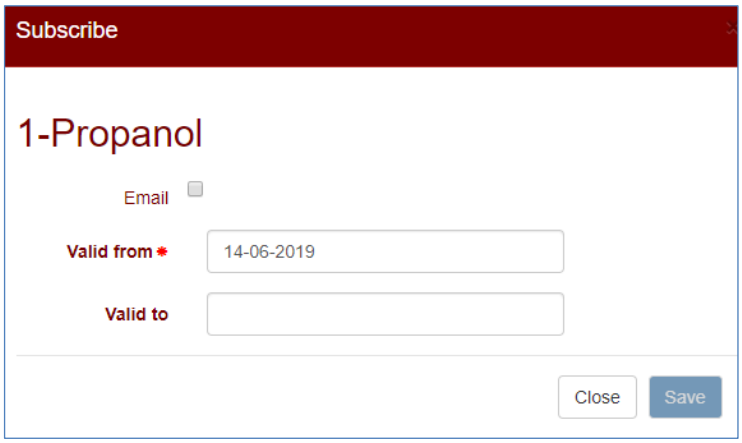


FIGURE 4-21: THE POP-UP WINDOW THAT APPEARS WHEN YOU CLICK ON THE ORANGE 'SUBSCRIBE' ICON. IN THIS CASE, FOR 'ISOPROPANOL'. IF YOU FILL OUT THE FIELDS AND CLICK ON 'SAVE', YOU WILL BE NOTIFIED EVERY TIME THERE IS A CHANGE TO THE ISOPROPANOL SDS.

5. CREATE CHEMICAL FACTS

USERS:

This section shows the functions associated with the 'Create chemical facts' menu item.

5.1 CREATE A NEW CHEMICAL ENTRY

The 'Create chemical facts' menu item in the main menu allows you to create a new chemical entry in Kemibrug.

When you click on the menu item, a window appears showing four types of chemicals, see FIGUR 5-1.

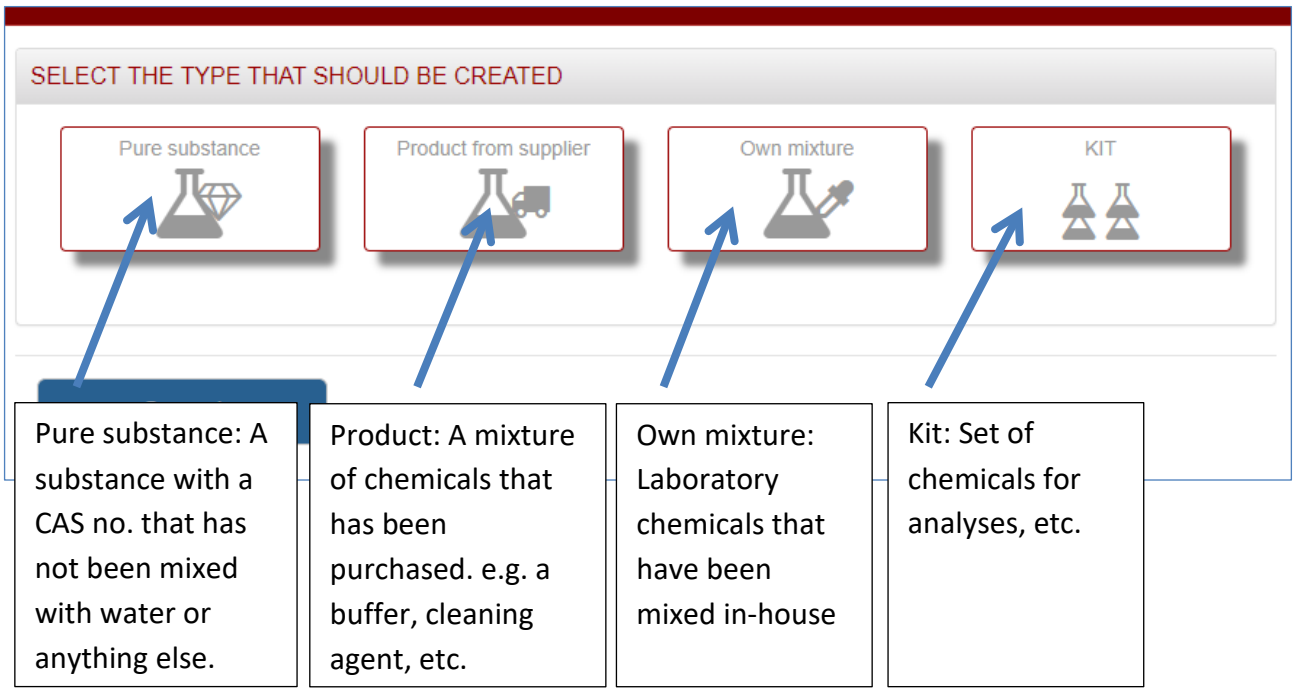


FIGURE 5-1: WINDOW THAT APPEARS WHEN YOU CLICK ON THE 'CREATE CHEMICAL FACTS' MENU ITEM. YOU MUST CHOOSE THE TYPE OF CHEMICAL. THE TEXT BOXES AND ARROWS EXPLAIN THE VARIOUS TYPES

You must click on one of the four chemical types to move on to the next step. Once you select the type, e.g. 'Product from supplier', a new form is displayed which you must fill out (see FIGUR 5-2).

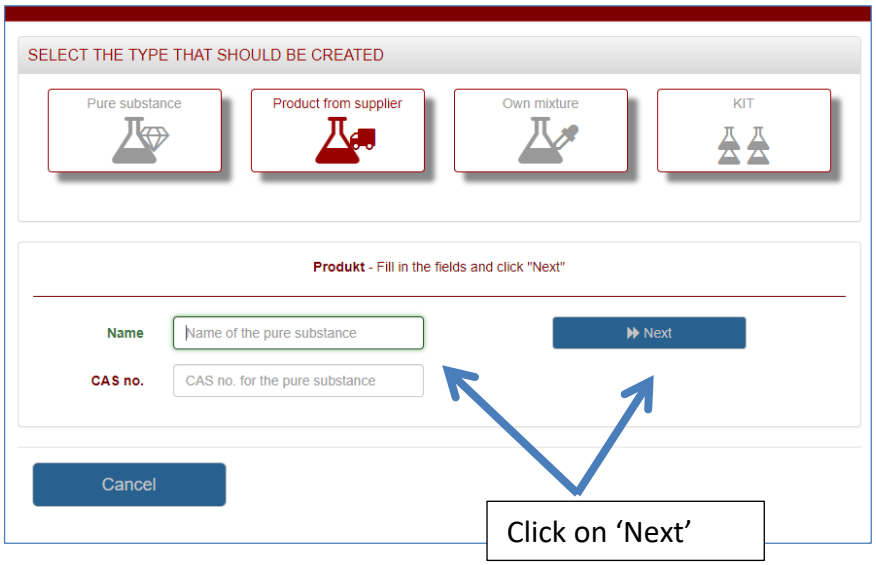


FIGURE 5-2: AFTER YOU HAVE SELECTED A CHEMICAL TYPE, ENTER THE NAME OR CAS NUMBER AND PRESS 'NEXT' (SEE THE ARROWS).

If the chemical does not exist, the message 'No chemicals ... found' will be displayed, as in FIGUR 5-3. Then click on 'Create'. If you have entered a name which precisely matches an existing chemical in the database, this will be displayed and you will be asked if you still want to create a new chemical entry.

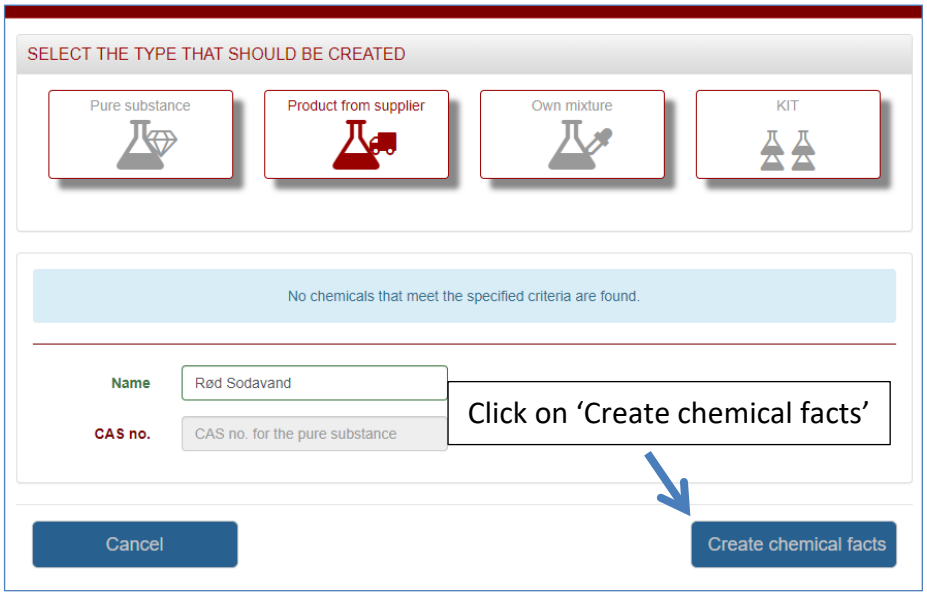


FIGURE 5-3: IF THE CHEMICAL DOES NOT EXIST, CLICK ON 'CREATE CHEMICAL FACTS'.

A chemical data form will then be displayed for the chemical you entered. It is optional whether you fill out the data in the chemical data form, however, the 'Recipient' must be selected. If you order an SDS for the chemical, all data will be overwritten by Kemibrug. Click on 'Create' and 'OK' to save the chemical. See FIGUR 5-4.

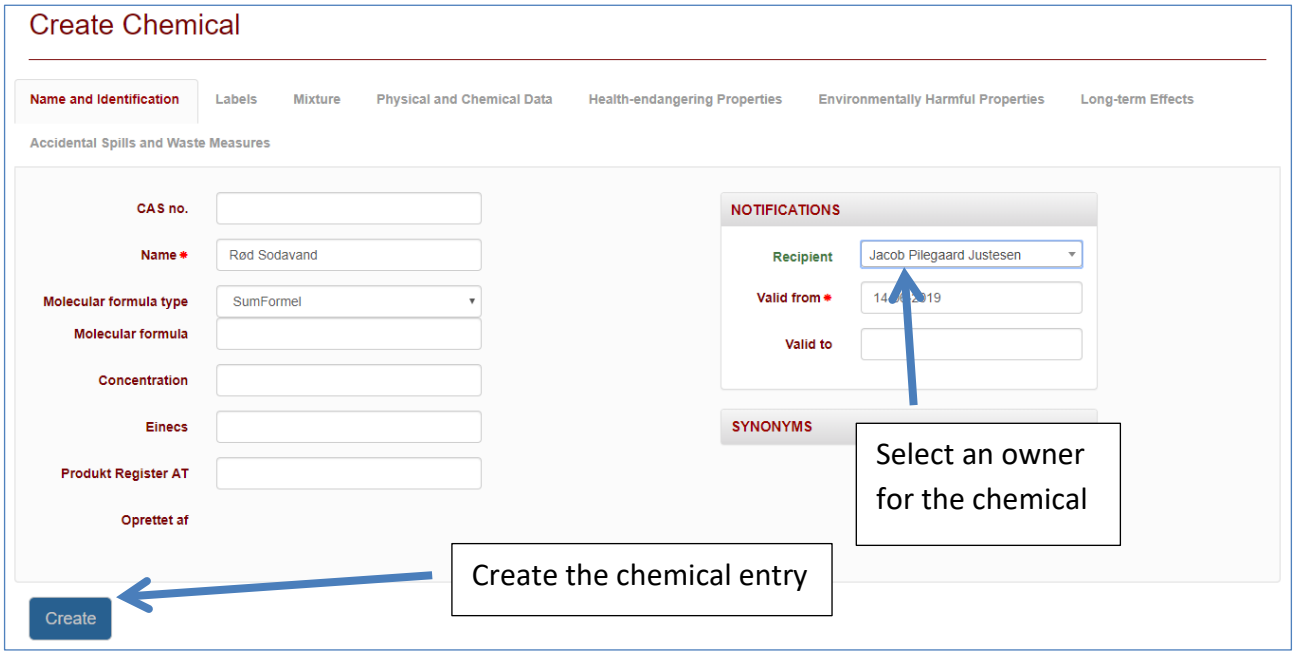


FIGURE 5-4: AFTER CLICKING ON 'CREATE CHEMICAL FACTS' AS SHOWN IN Figur 5-3, YOU MAY FILL OUT THE CHEMICAL DATA FORM (SEE THE ARROWS FOR DETAILS).

You can enter the chemical formula in the 'Name' and 'Molecular formula' fields in FIGUR 5-5. The easiest way to enter a number in a formula, such as the 2 in H_2O, is to start by typing H2O, then select the 2 and press X_2 on the [x_2 x^2 Ω] button panel:

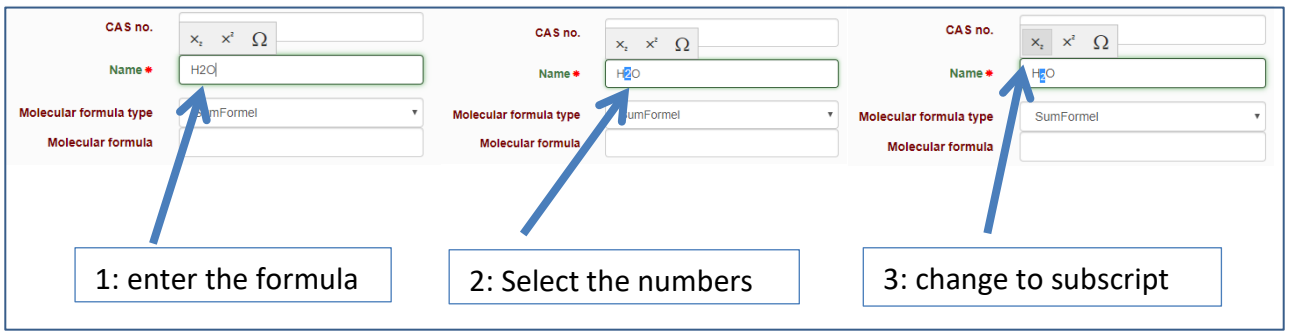


FIGURE 5-5: HOW TO ENTER A FORMULA WHEN FILLING OUT THE CHEMICAL DATA FIELDS FOR THE CHEMICAL YOU ARE CREATING. SEE THE ARROWS FOR DETAILS.

The chemical can be found again by using ‘Chemicals search’ to search for the chemical name, or part of the chemical name.

FIGUR 5-6 displays the results list for a search on ‘Red soda’. From here you can order an SDS for the newly created chemical or edit the chemical data.

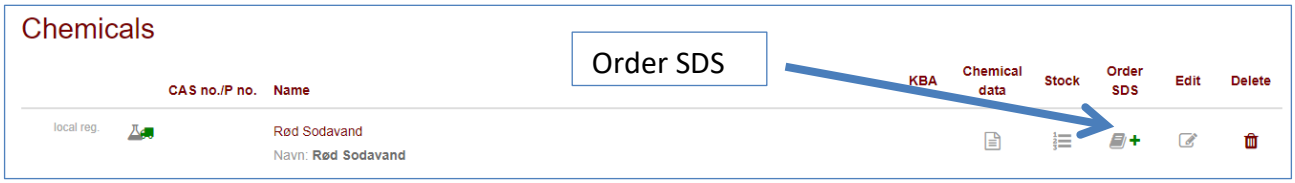


FIGURE 5-6: YOU CAN SEE THE CHEMICAL JUST CREATED USING ‘CHEMICALS SEARCH’. FROM HERE YOU CAN ORDER AN SDS FOR THE CHEMICAL.

6. 'SEARCH IN STOCK'

USERS:

This section covers local stocks. You can find information about your stocks in this menu. You can also edit information about where the chemicals are stored and their supplier, and attach analysis certificates, files containing local rules or links to the supplier, MSDS or SDS. Local stocks can also be created.

6.1 CHEMICAL STOCKS AND UNITS

Kemibrug uses two different concepts: chemical stocks and chemical units. Some organizations have chosen to hide the stock list because they do not have a chemical store from which chemical units are taken into the laboratories.

The stock is a collection of one or more chemical units. For example, you might buy a box containing six bottles, where the box is the stock and the individual bottles are the units.

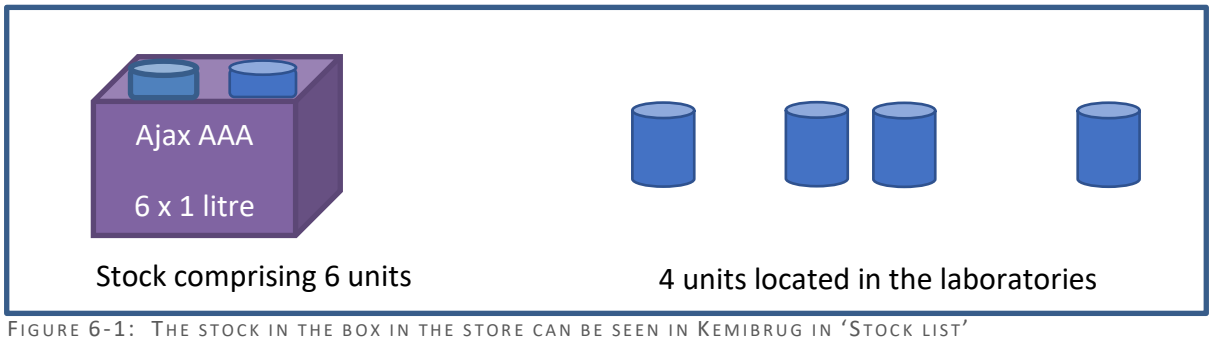


FIGURE 6-1: THE STOCK IN THE BOX IN THE STORE CAN BE SEEN IN KEMIBRUG IN 'STOCK LIST' THE UNITS IN THE LABORATORY AND IN THE STORE CAN BE FOUND USING 'SEARCH IN STOCK'

When you create a stock entry, all six bottles are located in the same place. Kemibrug assumes that the stock is in a store, where it has been assigned a storage place. When you need a new bottle, you look in the 'stock list' to find the location in the store. This is similar to finding a book's location in a library.

When you take a bottle from the store, you move the unit in the 'Search in stock' menu. The various bottles from the stock can therefore be in different places, and you can monitor this using 'Search in stock'. The stock location does not change, because the location in the store remains the same. Again, compared to a library, the book's location in the library is still the same (corresponding to the stock list), but the books are actually in the custody of various borrowers (just as the chemical units have been moved to the laboratory)

The table below shows how the chemical is shown in the stock list and in 'Search in stock' after various actions have been taken.

Action 1	Stock with two units created in ‘Hus 5’
Stock list	67-64-1 Acetone Backend … Hus 5 2 1 L 14-06-2019 Jacob Pilegaard Justesen
Search in stock	67-64-1 Acetone 1 L Hus 5 **Floor:** **Room:** 67-64-1 Acetone 1 L Hus 5 **Floor:** **Room:**
Action 2	One unit has moved to ‘Hus 2; Nyt rum’
Stock list	67-64-1 Acetone Backend … Hus 5 2 1 L 14-06-2019 Jacob Pilegaard Justesen
Search in stock	67-64-1 Acetone 1 L Hus 5 **Floor:** **Room:** 67-64-1 Acetone 1 L Hus 2 **Floor:** **Room:** Nyt rum
Action 3	One unit in ‘Hus 2; Nyt rum’ has been deleted
Stock list	67-64-1 Acetone Backend … Hus 5 1 1 L 14-06-2019 Jacob Pilegaard Justesen
Search in stock	67-64-1 Acetone 1 L Hus 5 **Floor:** **Room:**

6.2 Search in chemical stocks

If you want to search for a local stock, click on ‘Search in stock’ in the main menu. When this is done, a new window will appear as shown in Figur 6-2:

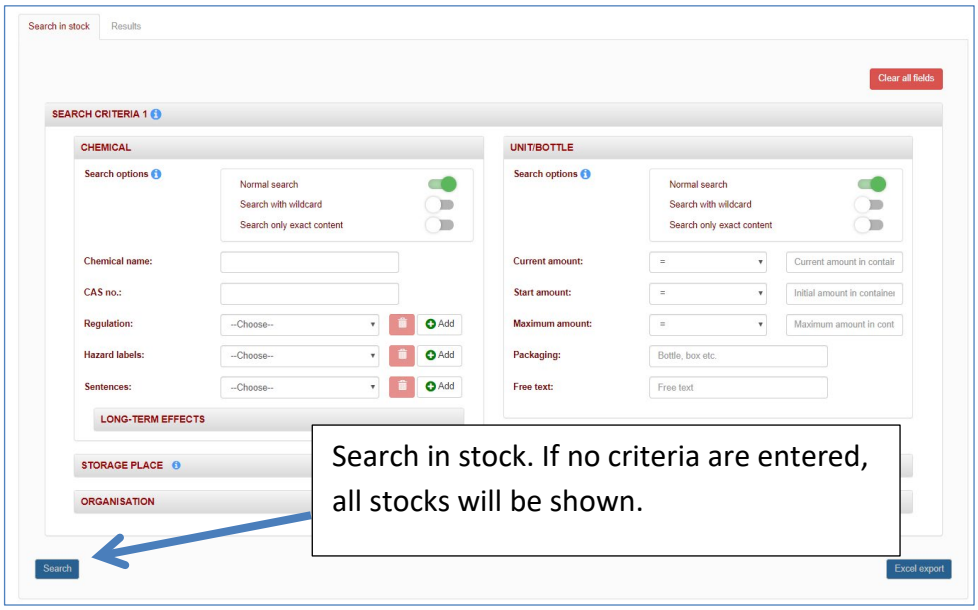


Figure 6-2: The window that appears after you click on ‘Search in stock’. This shows the results of a search in all local stocks, as no search criteria have been entered.

If you press ‘Search’, all the chemicals that are registered in the office which you are logged into will be shown FIGUR 6-3.

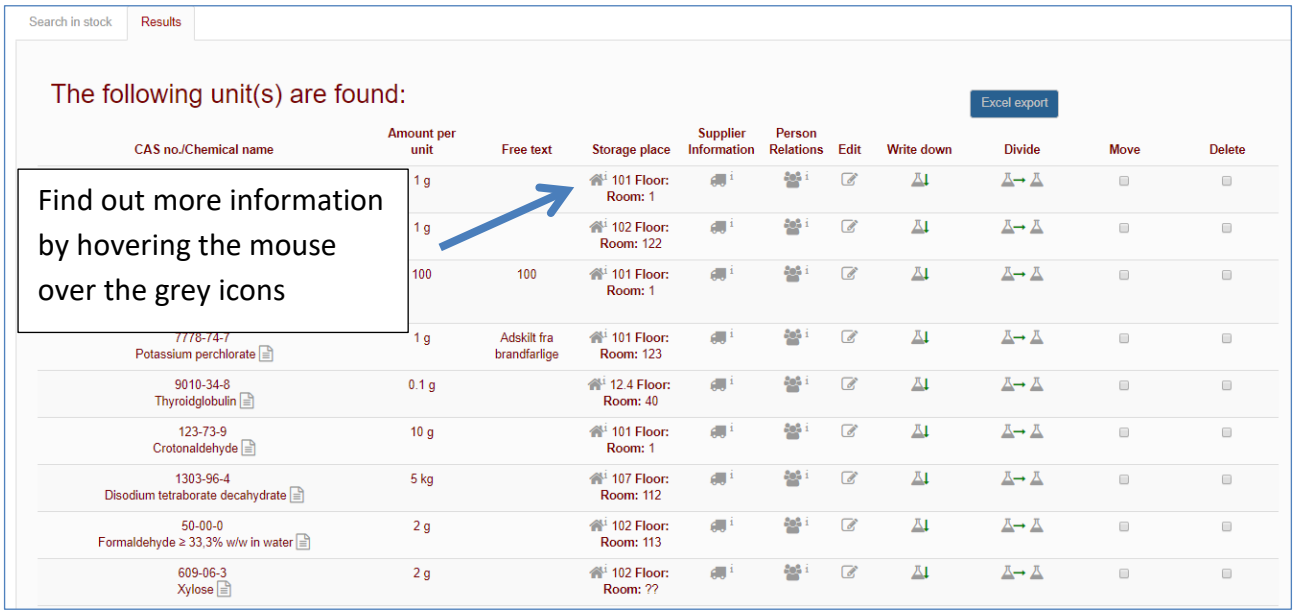


FIGURE 6-3: SEARCH RESULTS LIST FOR ‘ACETONE’ WITH NO SEARCH CRITERIA. THE RESULTS LIST SHOWS *ALL* LOCAL ACETONE STOCKS.

Hover the mouse over one of the grey icons under ‘Storage place’, ‘Supplier information’ or ‘Person relations’, shown in FIGUR 6-3, for more information about the storage place, supplier, or people who have worked with the chemical.

Section 6.7, SEARCH OPTIONS, explains all the search options in ‘Search chemical facts’ in detail.

Tip: Right-click on the 'Edit' icon in the search results to edit the entry in a new tab. This allows you to keep the search results in the old tab

6.3 Edit stock information

In the results list for stocks of a specific chemical there is an icon for editing the stock entry (see Figur 6-3). This is located under the 'Edit' heading. If you click on the icon, the screen in Figur 6-4 is displayed:

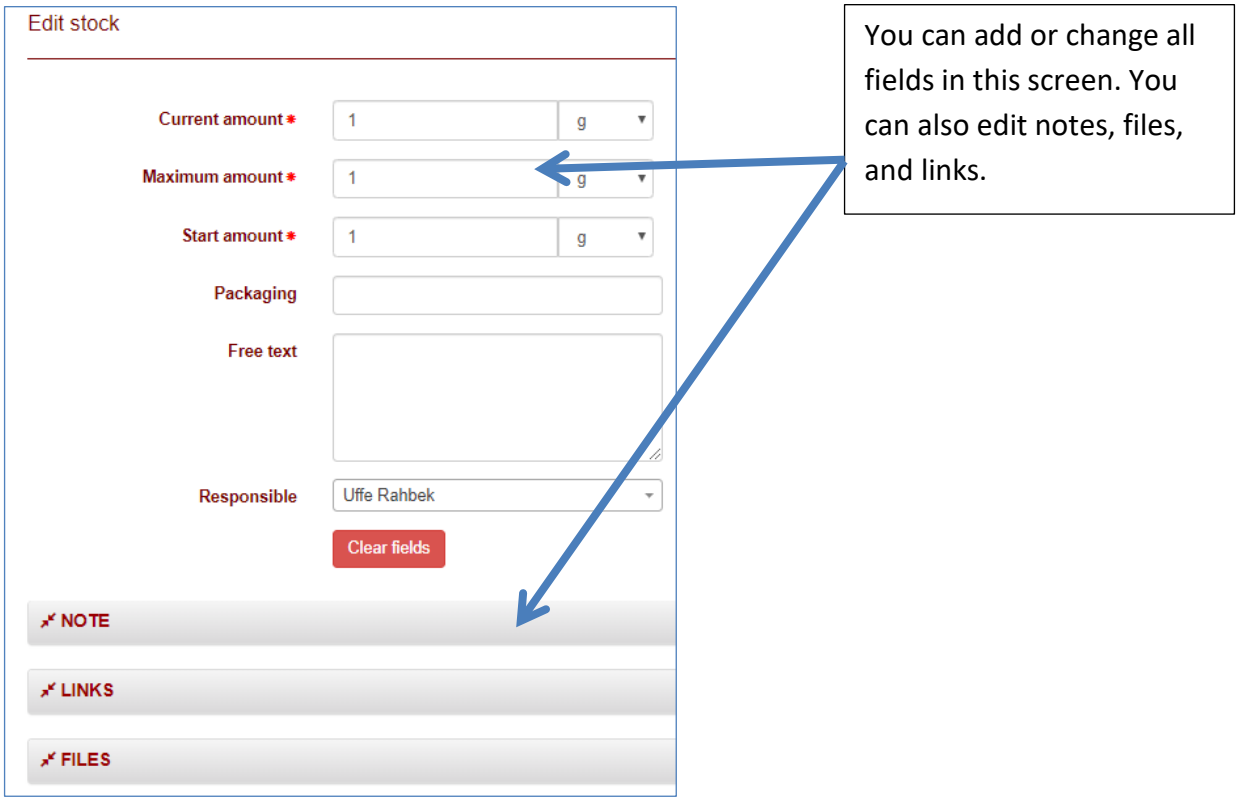


Figure 6-4: The screen that is displayed after pressing the 'Edit' icon in the stock list. See the text box for further explanation.

From this screen you can change the amounts registered for the given stock. You can also add free text, choose a new person to be responsible for the chemical or edit note text, links, or attached files.

6.4 Write down stock

From the results list for stocks that we saw in Figur 6-3, you can write down a stock. Click on the grey icon in the 'Write down' column and a pop-up window will open, as shown in Figur 6-5. You can then enter how much of the stock you have used. If you enter an amount that exceeds the remaining amount, you will get an error message and be asked to enter a different amount.

After you click on the blue 'Write down' button, the system will show how much of the stock is left in stock list.

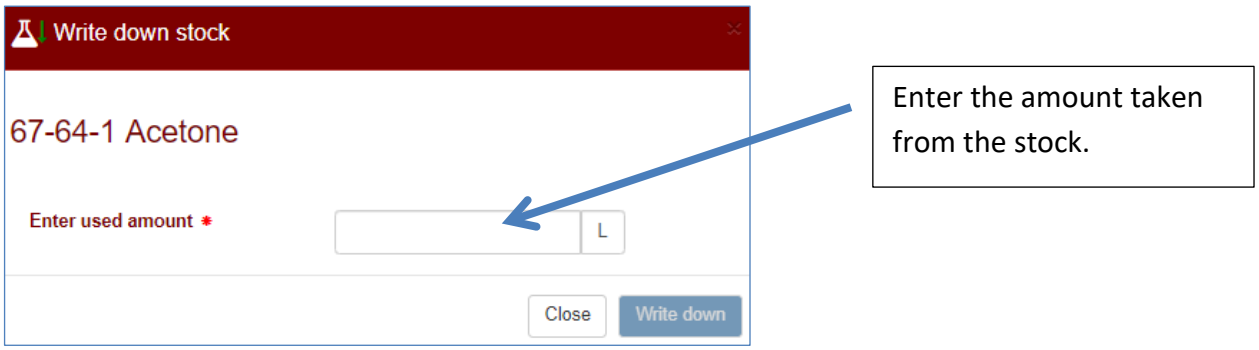


FIGURE 6-5: THE POP-UP WINDOW THAT APPEARS AFTER CLICKING ON THE 'WRITE DOWN' ICON IN THE STOCK LIST (SEE Figur 6-3). SEE THE TEXT BOX FOR DETAILS.

6.5 DIVIDE A STOCK

You can use the 'Divide' icon in the stock list (FIGUR 6-3) to write down the amount of a stock and create a new smaller stock of the same chemical at the same time. This function is useful if you are spitting a chemical stock in two.

If you pour a chemical stock into several smaller bottles, it is easier to write down the first stock and then create the other new stock entries (see chapter 6.8, CREATE A STOCK).

If you click on the icon in the 'Divide' column, the screen shown in FIGUR 6-6 is displayed:

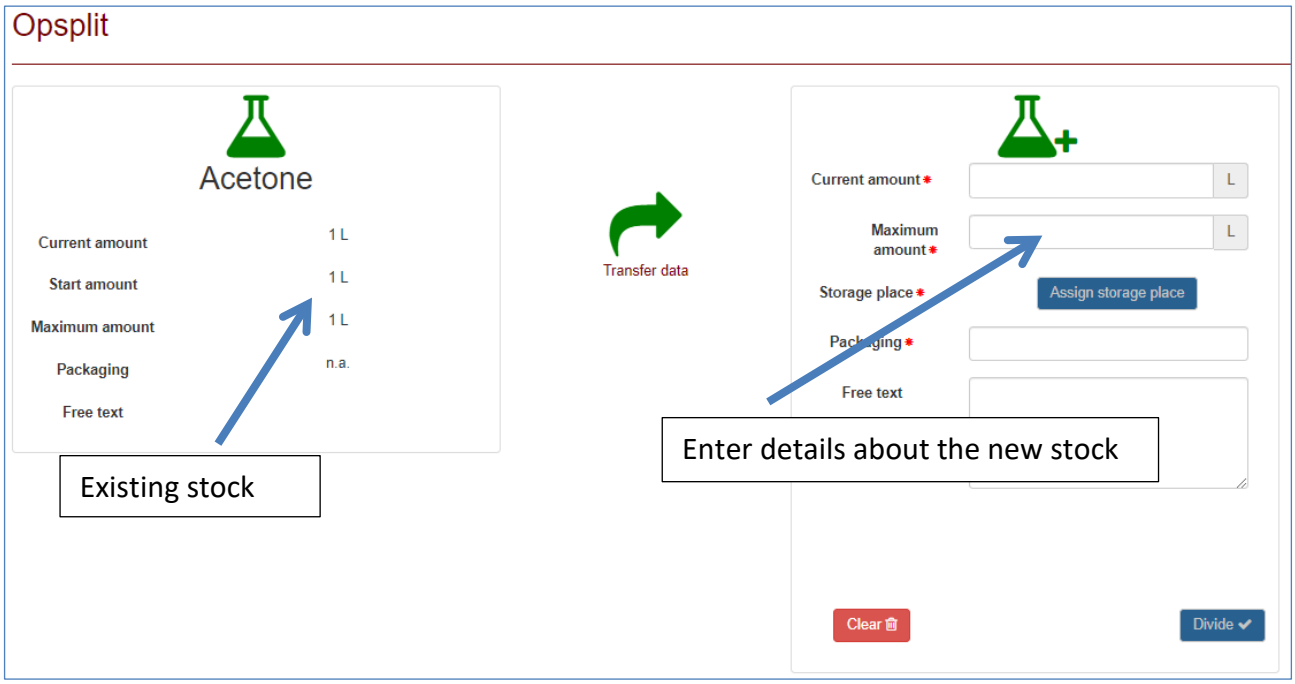


FIGURE 6-6: SCREEN FOR THE DIVIDE FUNCTION UNDER 'SEARCH IN STOCK', DISPLAYED AFTER CLICKING ON THE 'DIVIDE' ICON IN THE STOCK LIST (SEE Figur 6-3). FROM THIS SCREEN YOU CAN SEE THE EXISTING STOCK AND ENTER DETAILS FOR THE NEW STOCK. THE OLD STOCK WILL THEN BE WRITTEN DOWN BY THAT AMOUNT.

From this screen you can see the existing stock and enter details for a new stock. When you click on the blue 'Divide' button, the existing stock will be written down and a new stock entry will be created.

6.6 Moving stocks

It is possible to move several chemicals at once under 'Search in stock'. For example, if you want to move all acetone stocks from room 121 to room 234, one can search on 'acetone' and 'room 121'. Tick the checkbox to the far right in the results from this search as shown in Figur 6-7.

Then click on the blue 'Choose storage place' button, see Figur 6-7 (shown in detail in Figur 6-8), and find the new location where the chemicals will be stored. Once the storage location has been chosen, click on the green 'Accept' button.

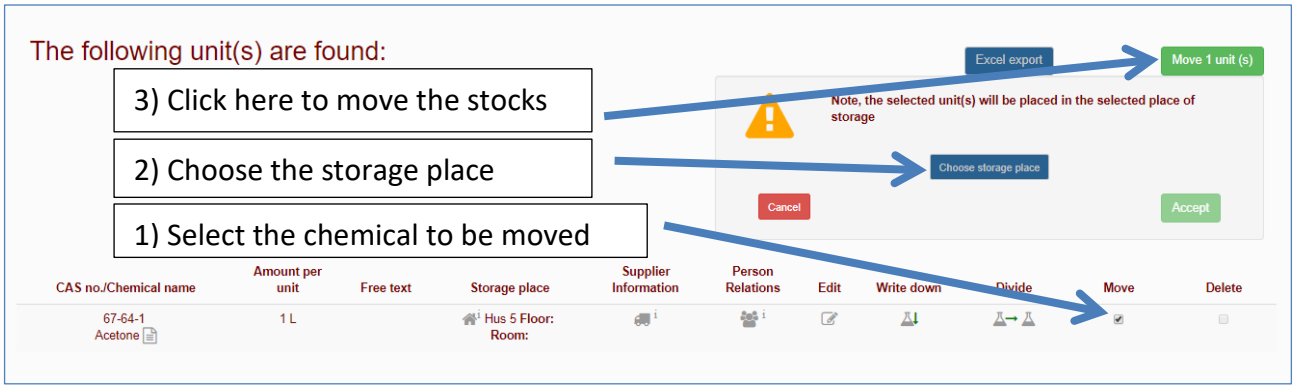


Figure 6-7: The stock list for a search on 'acetone' and 'Hus 5' in 'Search in stock'. See the text boxes and arrows for details on how to move stocks. See Figur 6-8 for a close-up image of the confirmation pop-up.

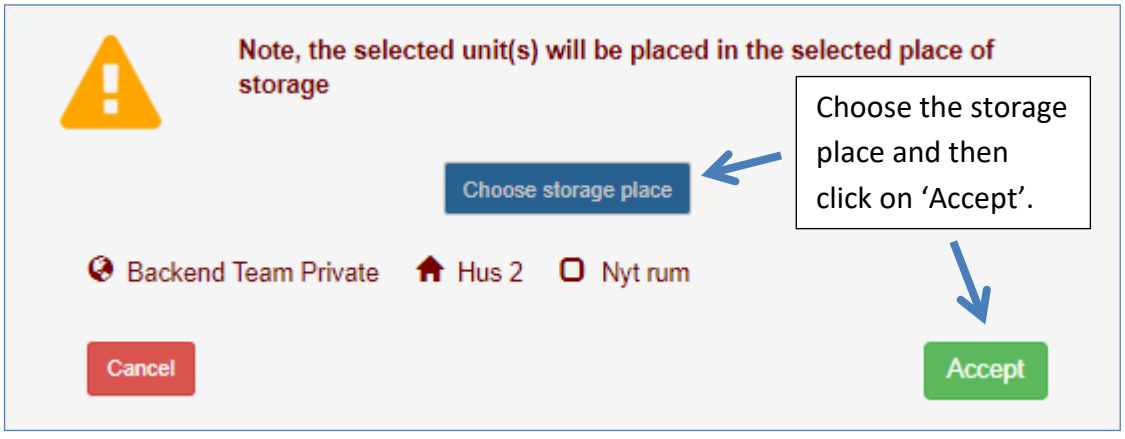


Figure 6-8: This is a close-up image of Figur 6-7.

Then click on 'Move XX unit(s)' (see FIGUR 6-7) to register the stocks at the new storage location.

You must go back to 'Search in stock' to see the updated list of units. FIGUR 6-9 shows what happens to the results list for the search in stock after a unit has been moved.

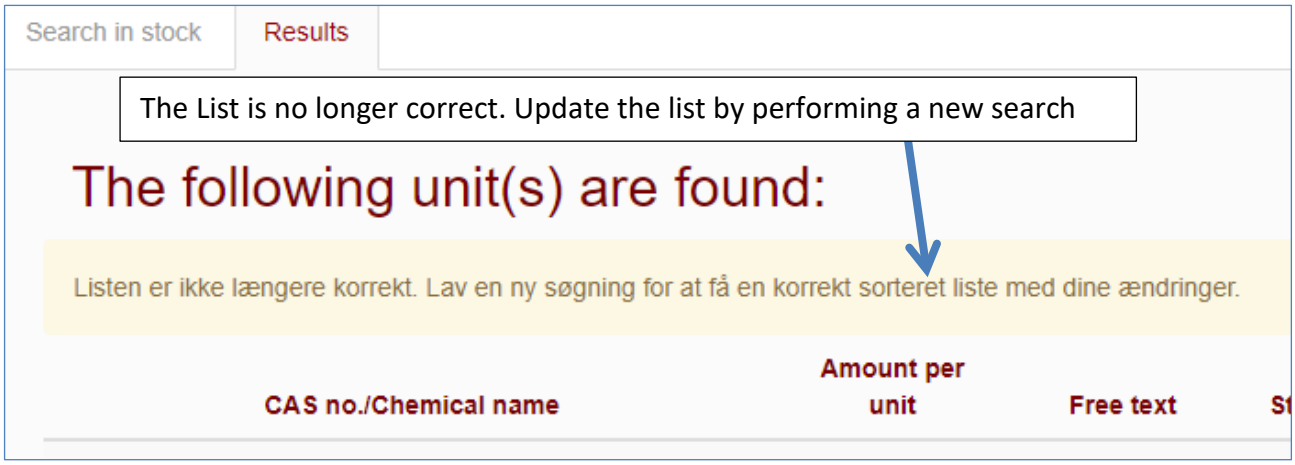


FIGURE 6-9: ERROR MESSAGE FOR THE STOCK LIST WHEN A STOCK HAS BEEN MOVED. SEE THE TEXT BOX FOR DETAILS.

6.7 SEARCH OPTIONS

The 'Search in stock' screen has a number of options for searching among units. The *Chemical, Unit/Bottle, Storage place, Stock, Organization* and *Person* tabs all contain fields in which you can enter search keywords. The tabs and search options are all explained in sections 6.7.2 to 6.7.7.

6.7.1 AND SEARCHES

If you want to do an 'AND' search, i.e. a search where multiple search criteria are met at the same time, you can do the following:

If you fill in multiple fields in the same search, the search will return any stocks that fulfil **ALL** criteria at the same time.

The search in FIGUR 6-10 will therefore return all stocks with hazard label 'GHS02' **AND** 'GHS07', **AND** which are greater than 1 unit (the unit in which the stock is entered—this could be 1 ml or 1 litre, etc.):

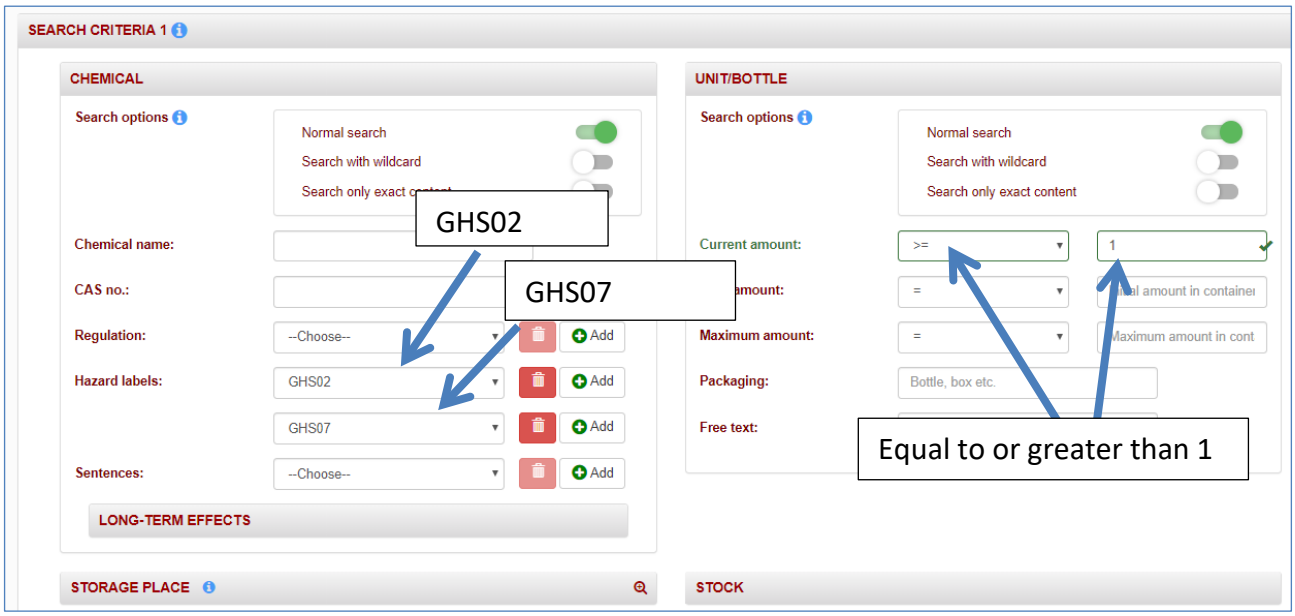


FIGURE 6-10: THIS FIGURE SHOWS A SEARCH IN 'SEARCH IN STOCK'. SEE THE BOXES AND ARROWS FOR DETAILS ABOUT THE SEARCH. THE SEARCH WILL SEARCH ON **ALL** THREE CRITERIA ENTERED.

6.7.2 'CHEMICAL' TAB

You can use the Chemical tab to search based on chemical specifications. These include the CAS No. and name, as well as icons or hazard phrases the chemicals in the stock are labelled with. You can also search for chemicals with particular long-term effects.

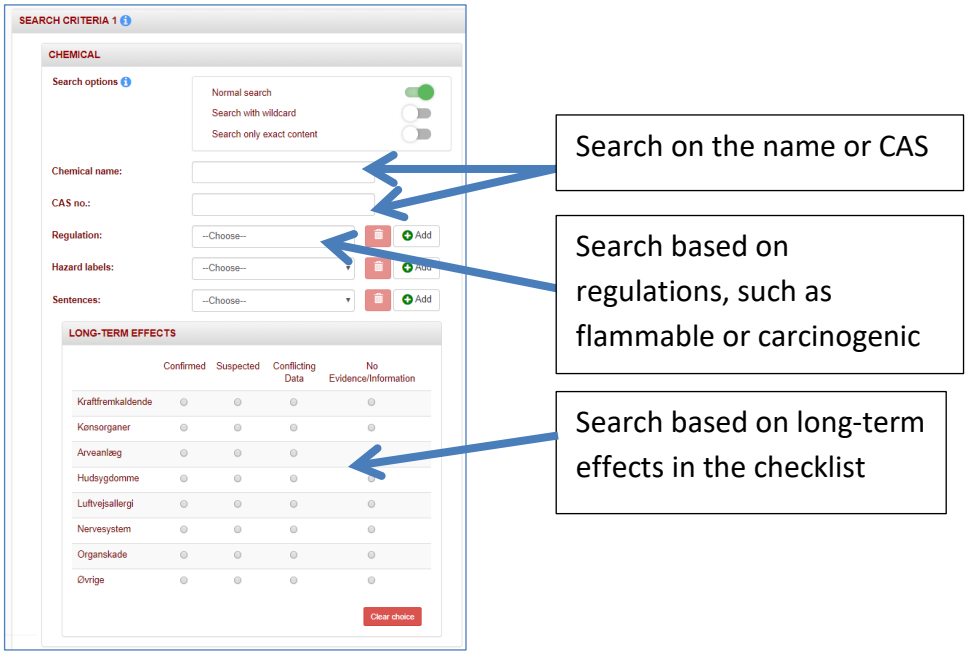


FIGURE 6-11: UNDER THE 'CHEMICAL' TAB YOU CAN SEARCH ON NAME, CAS NUMBER, REGULATIONS, HAZARD LABELS AND PHRASES, AND LONG-TERM EFFECTS.

6.7.3 'Unit/Bottle' tab

Under the 'Unit/Bottle' tab you can search based on amounts and more. Select the operator in the first field (see Figur 6-12)—equal, greater than, or less than—and enter the number you want to compare to in the next field. **NB:** The system cannot convert between units, so if you search for entries greater than 1, the system will find all stocks greater than 1, whether the unit is mg, g, or kg.

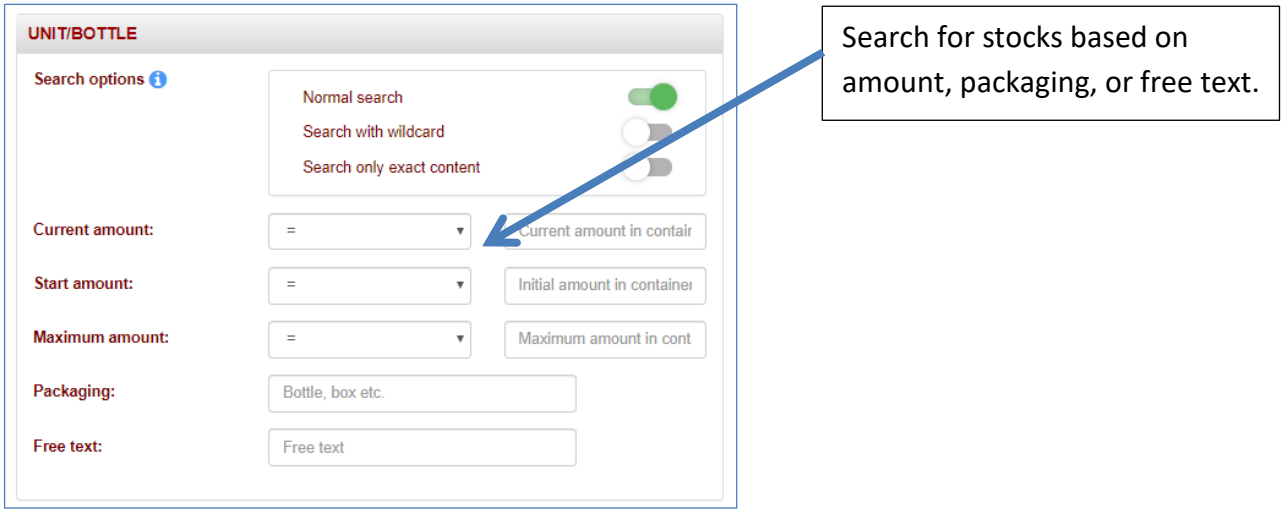


Figure 6-12: The 'Unit/Bottle' tab under 'Search in stock'. You can enter search criteria here in relation to amounts, using various operators, and packaging.

6.7.4 'Storage place' tab

Under the 'Storage place' tab you can set search criteria for units in a specific location. To select a storage location, click on the small magnifying glass in the upper right corner (see Figur 6-13). A pop-up window will be displayed, as shown in Figur 6-14. Select the storage location you want to search on in this pop-up window.

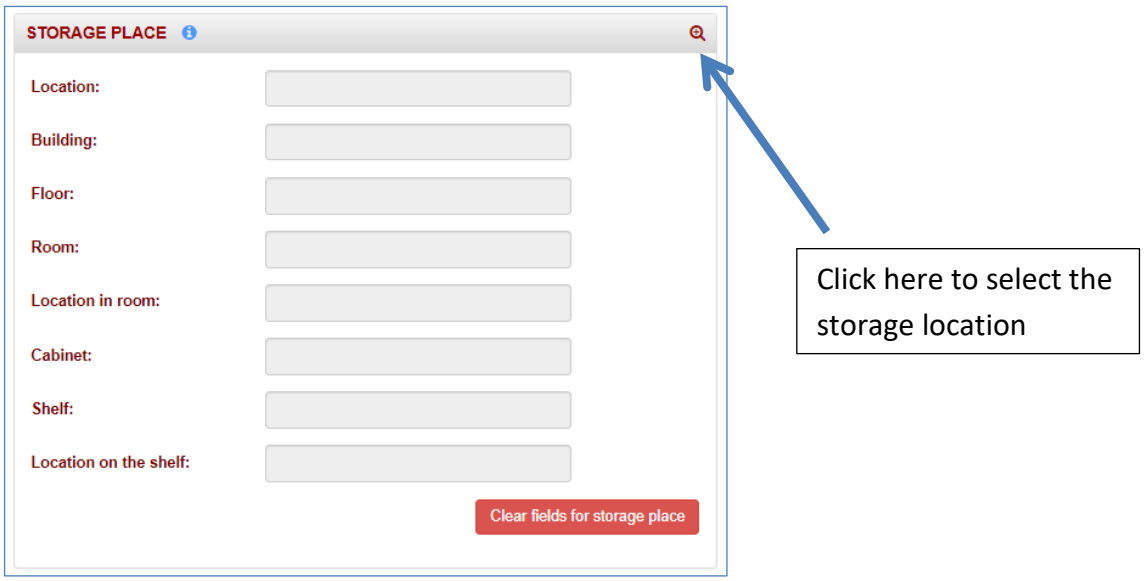


Figure 6-13: 'Storage place' tab under 'Search in stock'. This tab is used to enter information about the storage location for the stock(s) you want to find. To use this tab, you first need to click on the magnifying glass in the top right corner. See the text box and arrow.

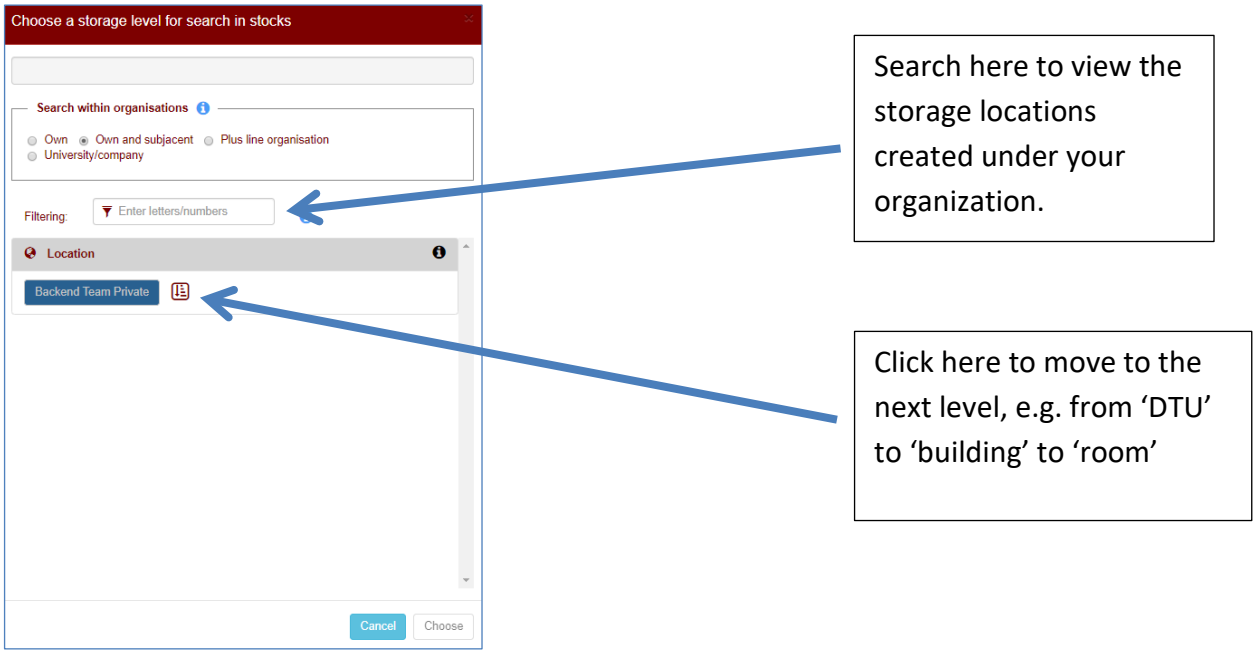


Figure 6-14: This figure shows the pop-up window that is displayed after clicking on the magnifying glass in the 'Storage place' tab (in Figur 6-13). See the arrows and text boxes for details.

When you have selected the desired organization, you choose which location you want to search within by clicking on the blue buttons you can see in FIGUR 6-14. If you click on the 'DTU' button, the search covers the entire section of DTU to which the organization belongs. If you want to be more specific, you can click on the brown arrow-down icon to the right of the 'DTU' button, as shown in FIGUR 6-14.

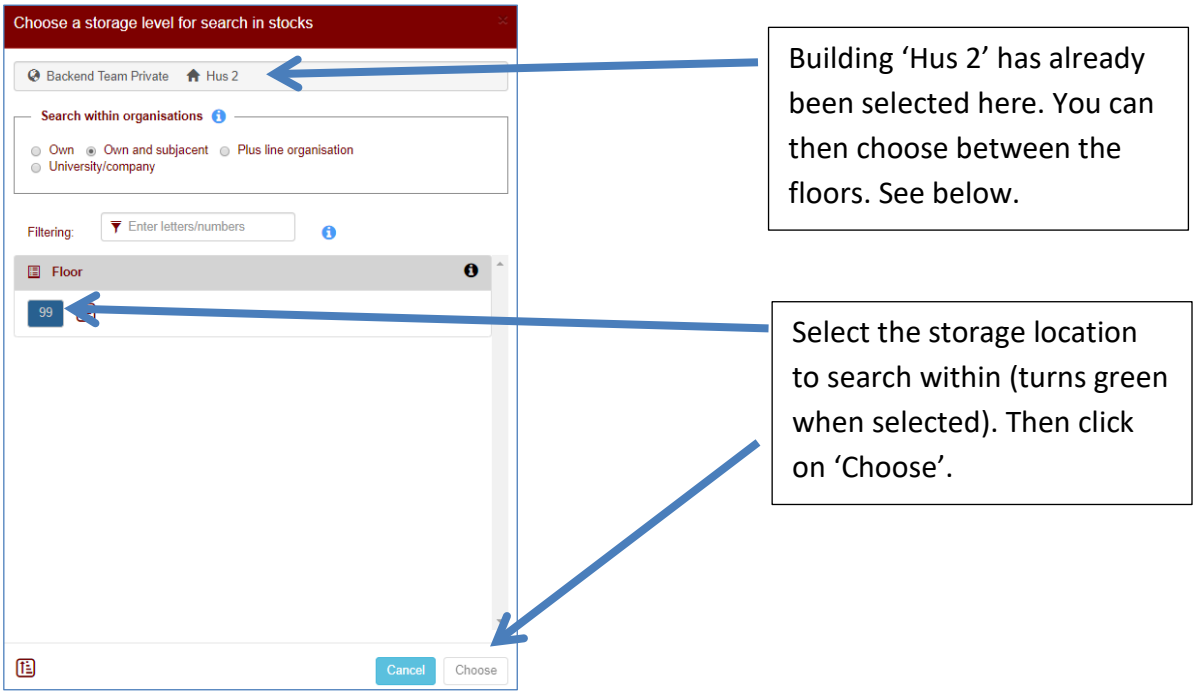


FIGURE 6-15: THIS FIGURE SHOWS HOW TO MOVE DOWN SEVERAL LEVELS AND CHOOSE THE BUILDING AT DTU (SEE THE TOP TEXT BOX) AND THEN THE FLOOR FOR THE STORAGE LOCATION (BOTTOM TEXT BOX).

When you do that, you will immediately be offered more choices—all within DTU, such as a list of buildings. In FIGUR 6-15, the menu next to building 402 has been clicked on, and the floor '??' and floor '4' options have been displayed. It is only possible here to choose to search on floor 4. You can click on this, so that it turns green, and then click on 'Choose'.

6.7.5 'Stock' tab

Under the 'Stock' tab you can search on information related to the purchase. In the 'Supplier' box, it is enough to search on part of the supplier name. For example, if you search for 'Sig', you will find 'Sigma-Aldrich'.

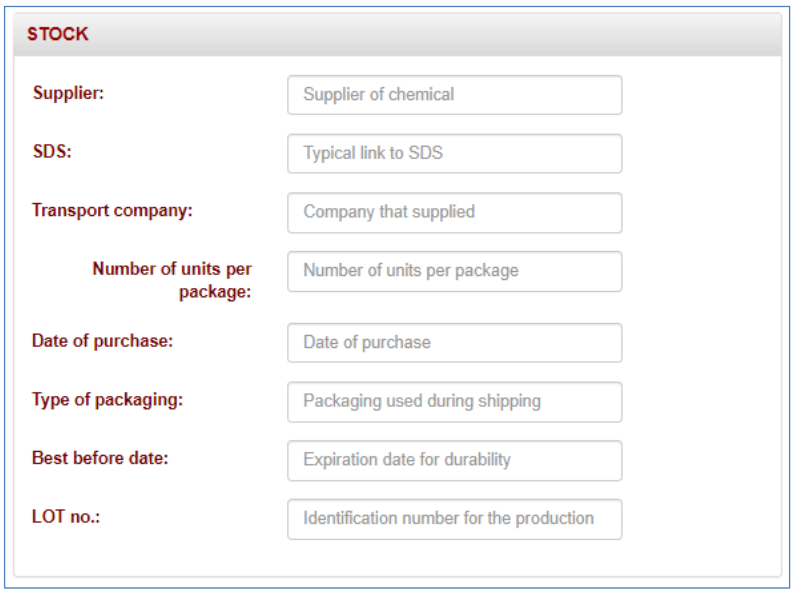


Figure 6-16: This figure shows the 'Stock' tab. This can be used to search based on information related to the purchase of the chemical, such as the supplier and type of packaging.

6.7.6 'Organization' tab

This tab should normally be ignored. If you have the necessary privileges to view more than your own department, you can select which organization you want to search for stocks within to limit your search. In this case you can use the 'Organization' tab as shown in Figur 6-18.

If you are logged in at 'UCPH' and have the privileges to view the entire organization, you can type 'UCPH' in as the organization, for example, and see where the given chemical is located at 'UCPH'. You can also enter 'SCIENCE' and see which storage locations within SCIENCE have the chemical, thus excluding 'SUND'. If you only want to search within a single department, you can search on 'FOOD', for example, and see which of FOOD's storage places have the chemical.

This figure illustrates the aforementioned:

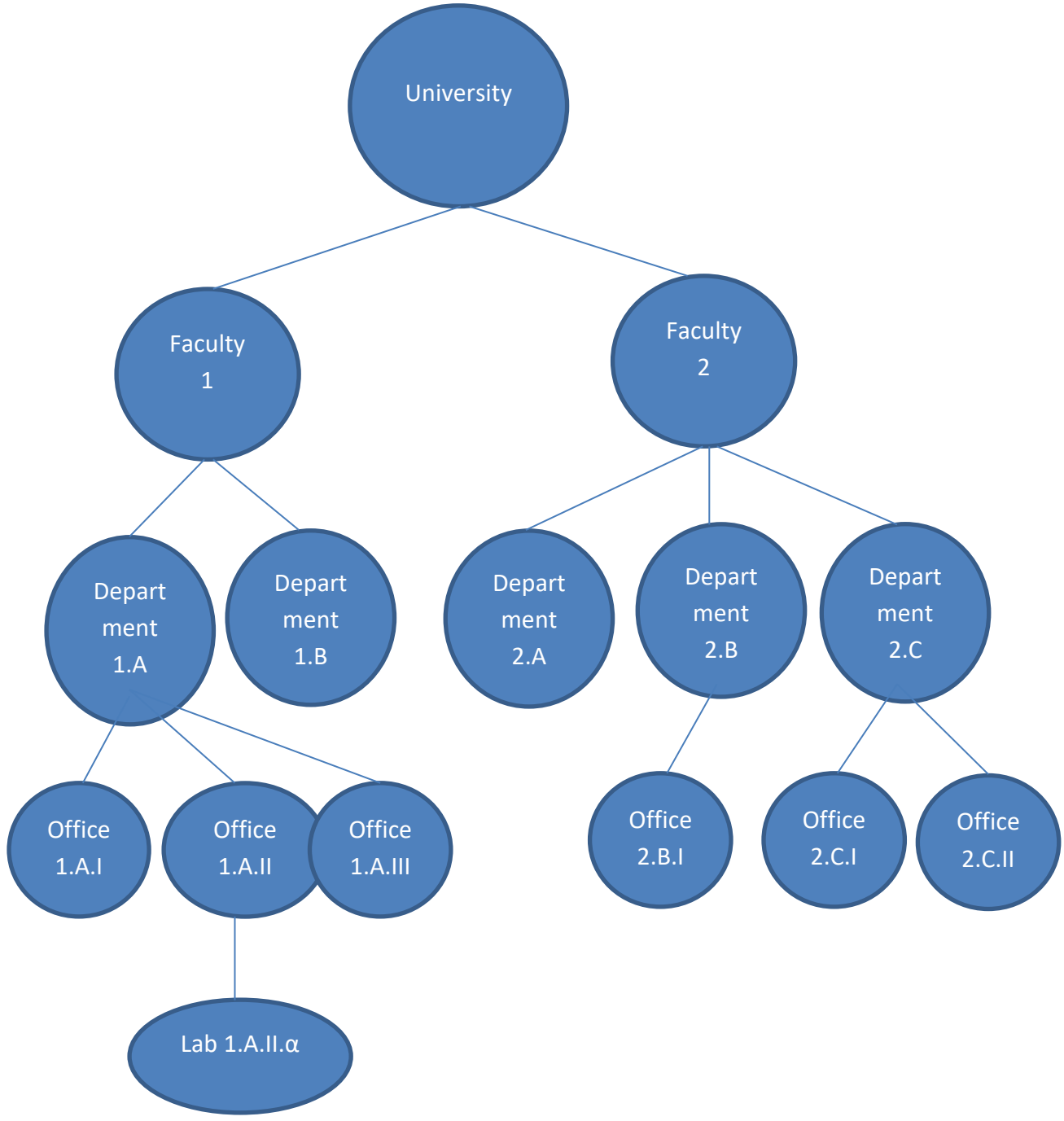


FIGURE 6-17: THIS FIGURE SHOWS THE 'STOCK' TAB. THIS CAN BE USED TO SEARCH BASED ON INFORMATION RELATED TO THE PURCHASE OF THE CHEMICAL, SUCH AS THE SUPPLIER

If you are logged in to 'University', you can see all the stocks at once. For example, you can search for picric acid and see all the registered stocks of picric acid within all the organizations under 'University'.

If you choose the 'Department 2.C' organization, you will only see the stocks that are in Department 2.C, office 2.C.1, and office 2.C.II, even if you are logged in to 'University'

If you are logged in to 'Office 2.C.1', you will only be able to see the stocks in Office 2.C.1, regardless of which organization you choose.

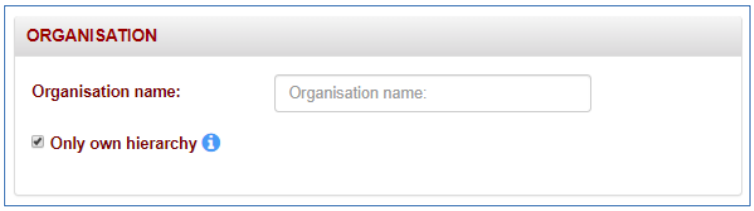


FIGURE 6-18: THE 'ORGANIZATION' TAB CAN BE USED IF YOU ARE LOGGED IN TO AN ORGANIZATION WHICH HAS MULTIPLE SUB-ORGANIZATIONS. FOR EXAMPLE, IF YOU ARE LOGGED IN TO UCPH, YOU CAN LIMIT THE SEARCH TO ONLY COVER SCIENCE BY ENTERING 'SCIENCE' IN 'ORGANIZATION NAME'.

6.7.7 'PERSON' TAB

Under 'Person' tab, you can search based on the person who created, edited, or is responsible for the stock, see FIGUR 6-19. This can be useful, for example, if you need to move the stocks that belong to a particular person.

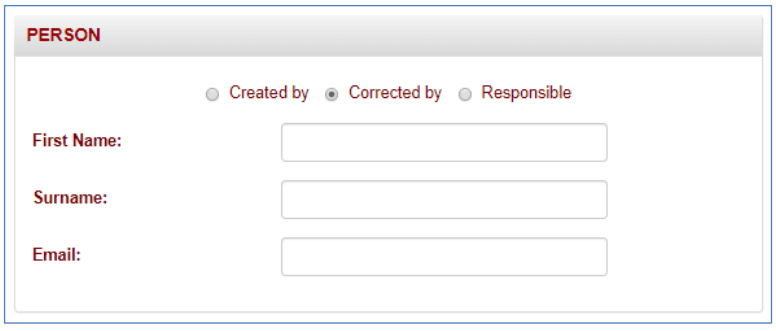


FIGURE 6-19: THIS FIGURE SHOWS THE 'PERSON' TAB, WHICH CAN BE USED TO SEARCH FOR STOCKS LINKED TO A SPECIFIC PERSON, E.G. A PERSON RESPONSIBLE FOR CERTAIN STOCKS.

6.8 Create a stock

There are several ways to create a stock.

1. From 'Chemicals search'
2. From 'Search in stock'
3. From 'Create chemical facts'

The methods are very similar and are explained in the following sections:

6.8.1 Create a stock from 'Chemicals search'

Click on the 'Chemicals search' menu item. You can search for the chemical here that you want to create a stock for. This is shown in Figur 6-20 for acetone:

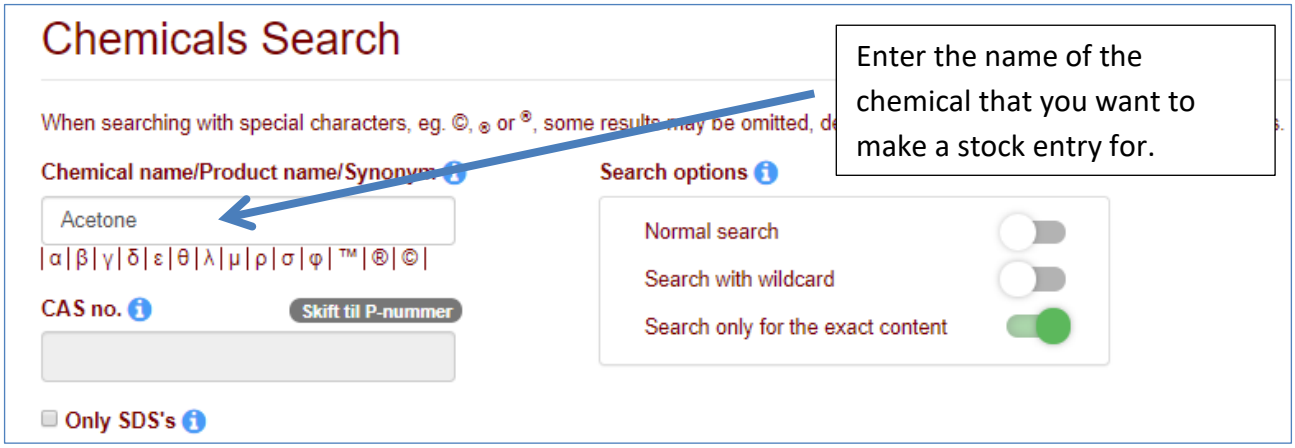


Figure 6-20: This figure shows the screen that is displayed when you click on the 'Chemical search' menu item. In this example, a search has been made for 'acetone'.

In the search results list, click on the icon under 'Stock', as shown in Figur 6-21.

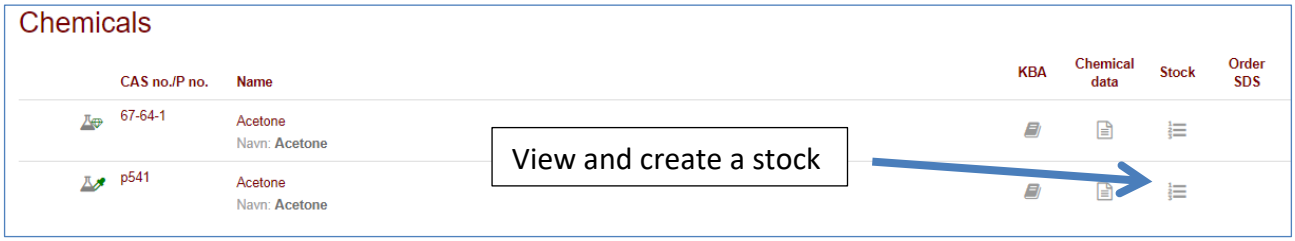


Figure 6-21: This figure shows the result list following the search in Figur 6-20 for 'acetone'. Click on the icon under the heading 'Stock' to view or create a stock.

After you click on the 'Stock' icon, a list of stocks is displayed (see FIGUR 6-22). No data has been entered for supplier or amount in FIGUR 6-22, and the fields are therefore empty:

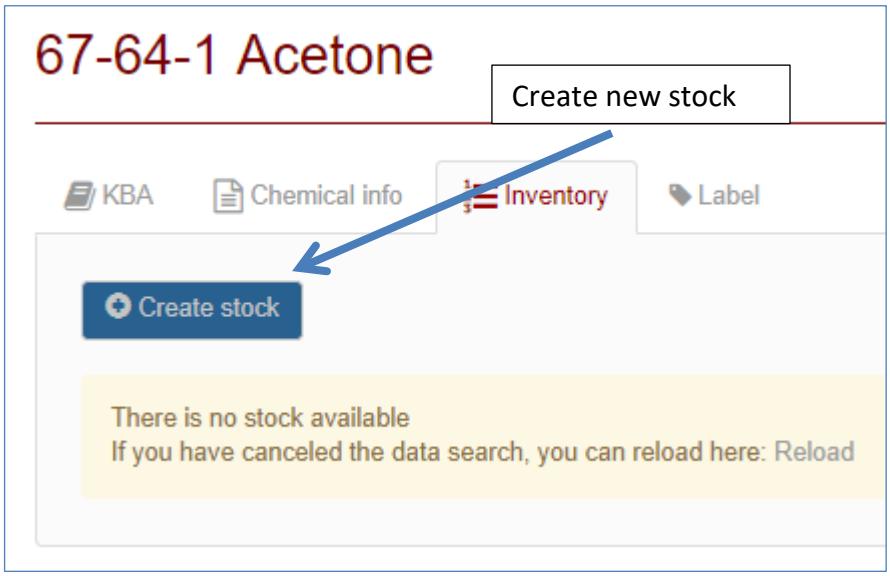


FIGURE 6-22: THIS IS THE SCREEN YOU WILL SEE WHEN YOU HAVE CLICKED ON THE 'STOCK' ICON. CLICK ON THE BLUE BUTTON TO CREATE A NEW STOCK.

Click on the blue 'Create stock' button to create a new stock.

A new screen appears, as shown in FIGUR 6-23. You must fill in the fields marked with a red asterisk.

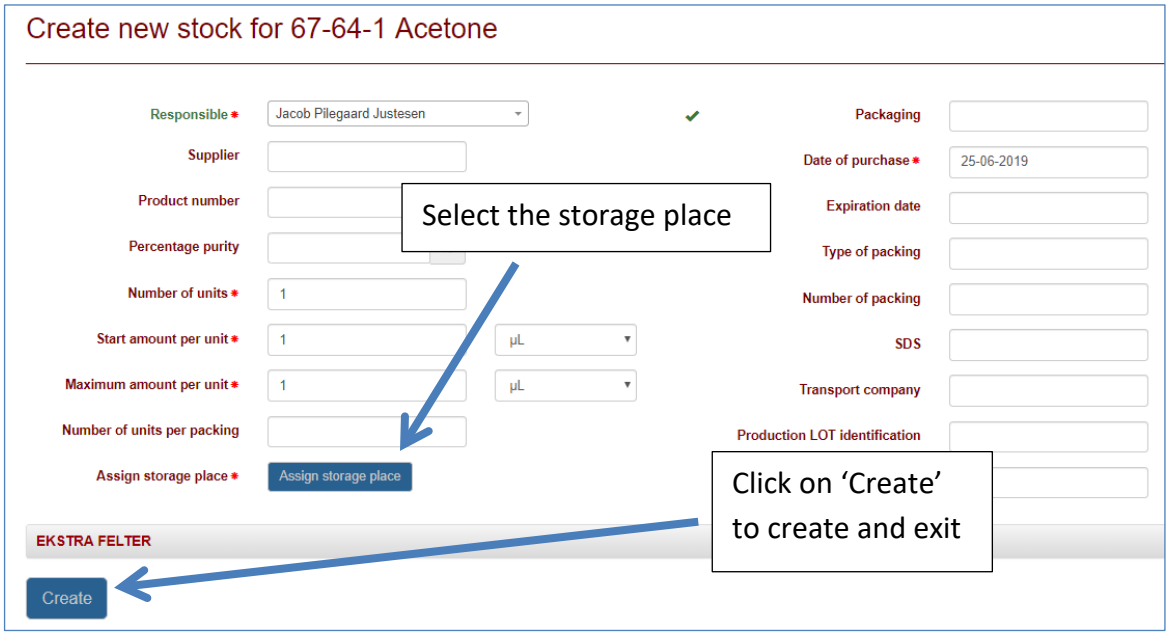


FIGURE 6-23: THE SCREEN THAT APPEARS AFTER CLICKING ON 'CREATE STOCK' IN Figur 6-22.

The stock of acetone has now been created, as shown in FIGUR 6-24:

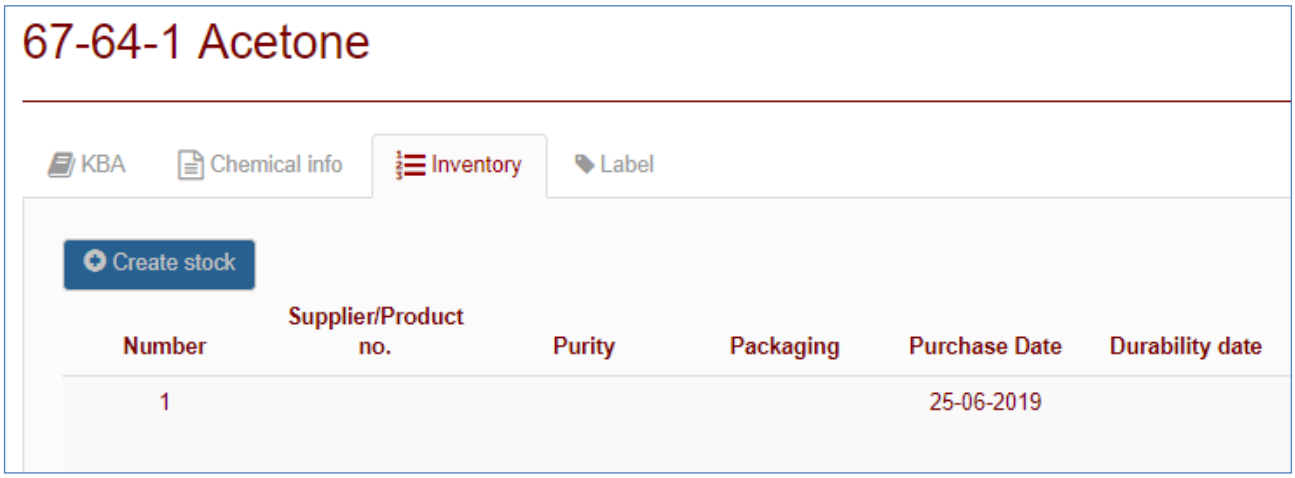


FIGURE 6-24: THIS FIGURE SHOWS THE SCREEN AFTER A NEW CHEMICAL STOCK HAS BEEN CREATED. YOU CAN SEE THAT THE NUMBER '1' IS SHOWN UNDER THE HEADING 'NUMBER'.

6.8.2 CREATE FROM 'SEARCH IN STOCK'

If you already have some stock of the chemical and want to register additional stock, you can search for the chemical under the 'Search in stock' menu item and then click on the blue 'Create stock' button. You will then be taken directly to the screen in FIGUR 6-23. Fill out the fields and click on 'Create'.

6.8.3 CREATE FROM 'CREATE CHEMICAL FACTS'

If the chemical is not in the Kemibrug database, you can create it under the 'Create chemical facts' menu item and then do as directed in chapter 5, CREATE CHEMICAL FACTS.

7. STORAGE PLACES

USERS:

The main menu contains the ‘Storage places’ menu item.

Storage places are the locations where chemicals are stored. A storage place can be an organization. If you need more details, you can enter the building, floor, room, cabinet, shelf, and shelf position. These fields may contain both numbers and letters.

Click on this menu item to edit the names of the places where chemicals are stored or to create new storage places.

7.1 OVERVIEW OF STORAGE PLACES

FIGUR 7-1 shows the screen for the ‘Storage places’ menu item.

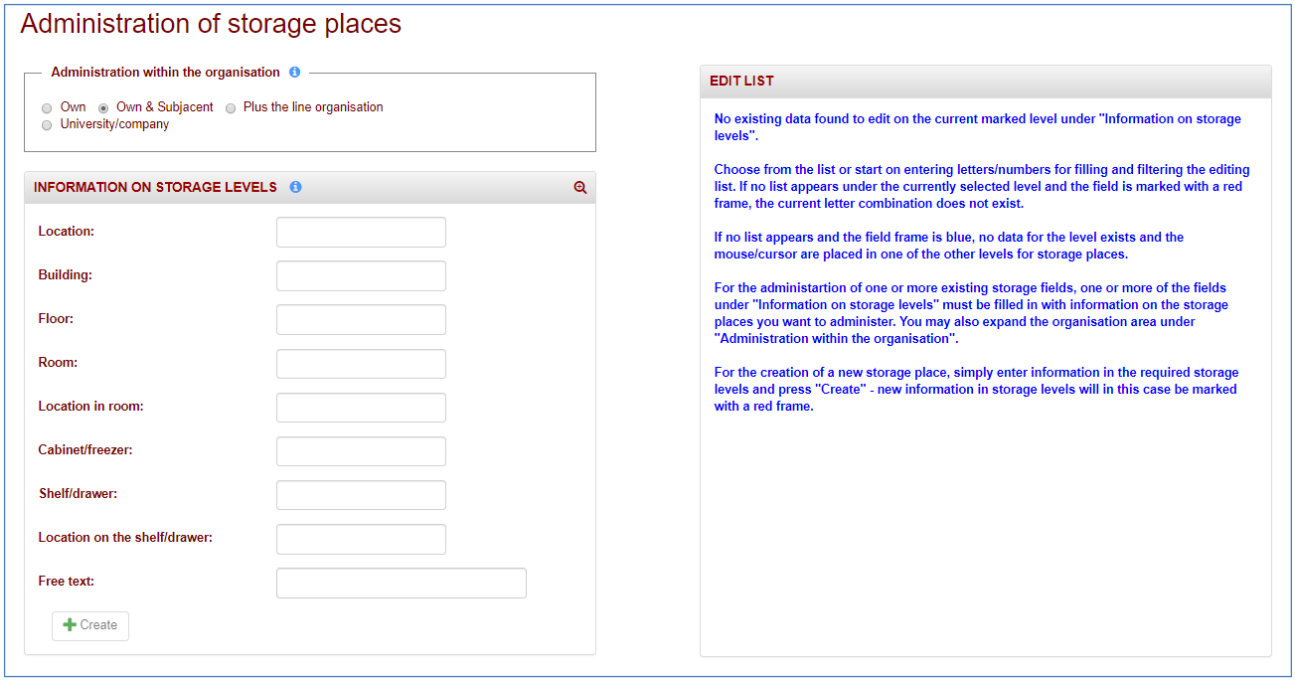


FIGURE 7-1: THE SCREEN THAT IS DISPLAYED AFTER CLICKING ON THE ‘STORAGE PLACES’ MENU ITEM.

Click on the checkbox alongside 'Location' to view the locations that have already been created in the organization you are logged into (see FIGUR 7-2)

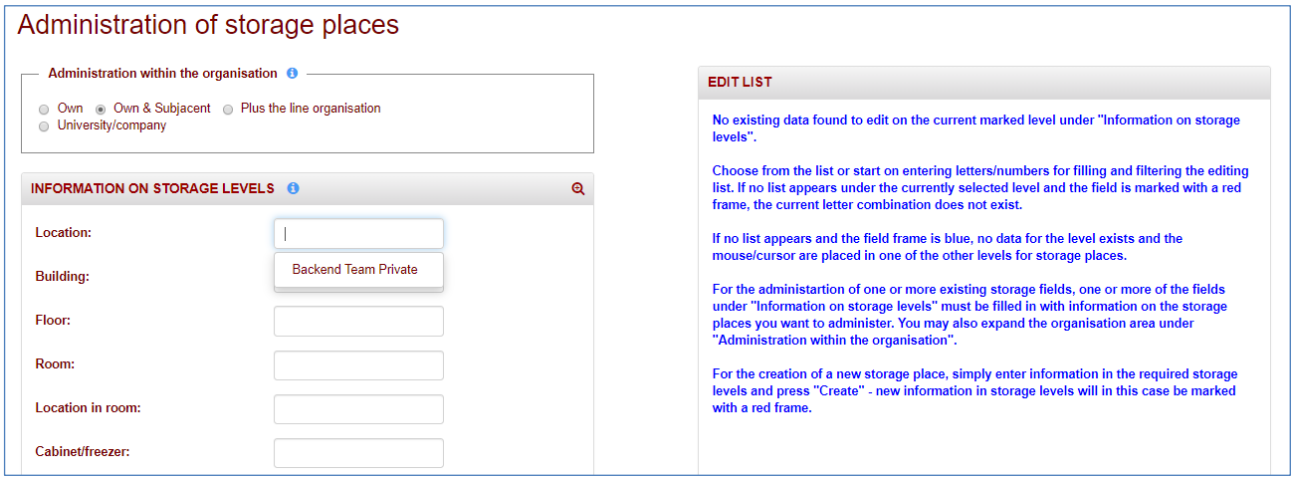


FIGURE 7-2: THE STORAGE PLACES THAT HAVE ALREADY BEEN CREATED CAN BE VIEWED BY CLICKING ON THEIR CHECKBOX.

If you select a storage place, you can see how many storage places have been created under this location in the pane to the right. See FIGUR 7-3, where you can see that this organization has 37 storage places.

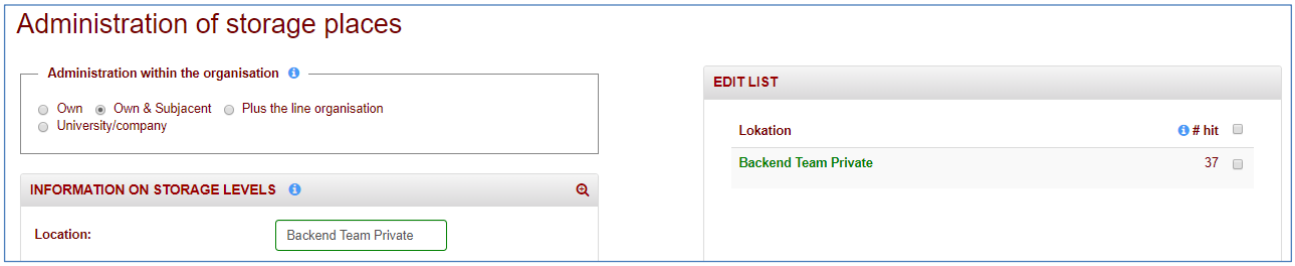


FIGURE 7-3: BY CLICKING ON THE 'BACKEND TEAM PRIVATE' BUTTON IN THE 'LOCATION' PANE, YOU CAN SEE THAT THIS ORGANIZATION HAS CREATED 37 STORAGE LOCATIONS.

If there are many storage places at a given level, you can limit the number by typing part of the name of the storage place you are searching for. This can be especially useful if multiple names have been created for the same storage place (see FIGUR 7-4).

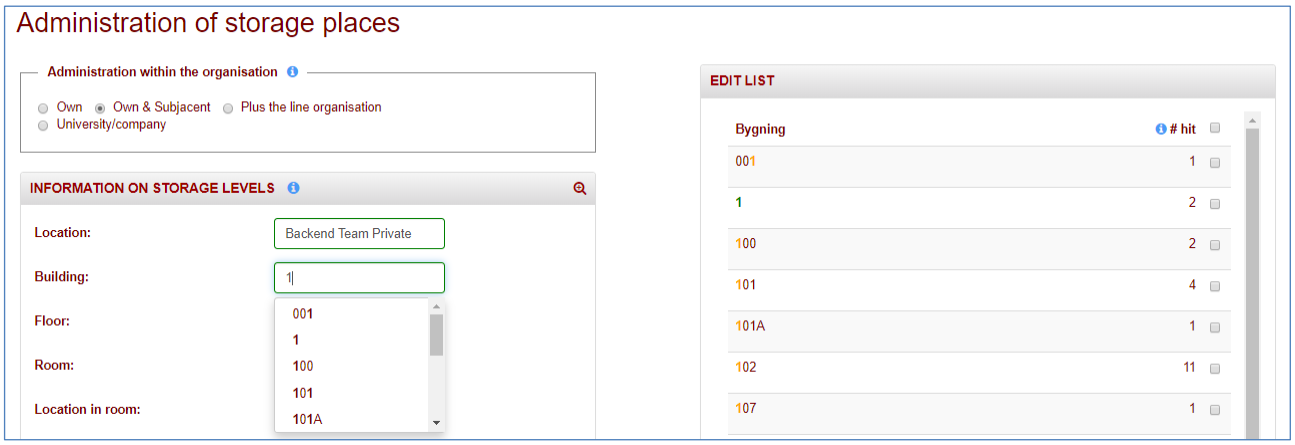


FIGURE 7-4: IF YOU ENTER PART OF THE NAME OF THE STORAGE PLACE YOU ARE SEARCHING FOR, YOU WILL SEE A LIST TO THE RIGHT SHOWING THE PLACES THAT CONTAIN THE TEXT YOU UNDER EACH NAME ON THE FAR RIGHT.

Tip: If the view is playing up in the menu, it often helps to start over by clicking 'Storage places' in the left menu

7.1.1 CREATE NEW STORAGE PLACE

Once you have clicked on the button for the location where you want to create a new storage place, enter the name of the place you want to create. The frame around the place name will turn red, indicating that the name does not already exist. See FIGUR 7-5.

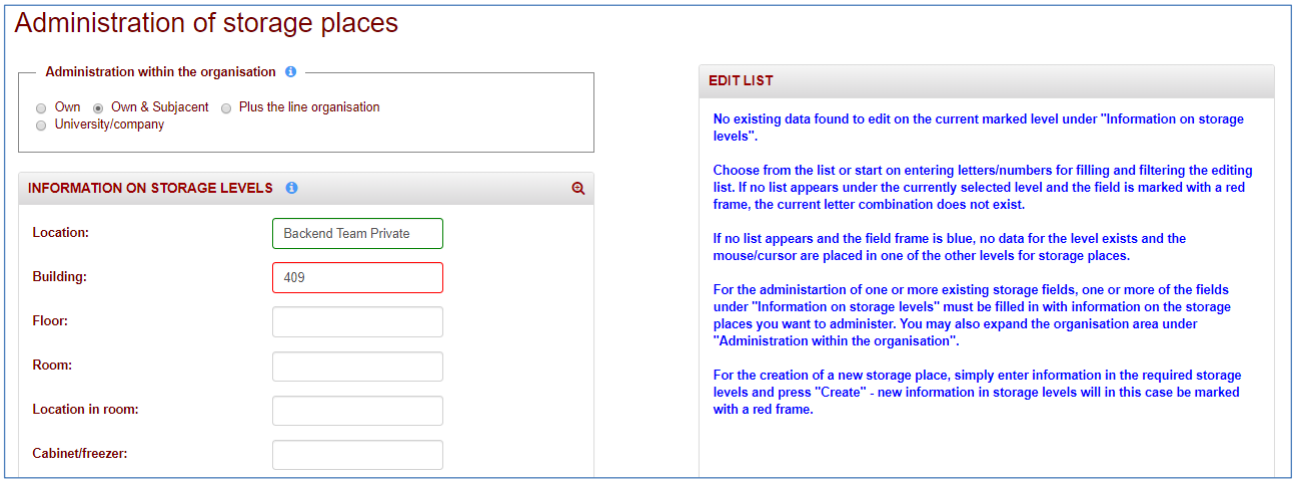


FIGURE 7-5: OVERVIEW OF STORAGE PLACES.

There are a few rules to be aware of when creating new storage places.

7.1.1.1 You must not create two places with exactly the same name

This is a fairly logical rule. You cannot have two different 'Room 1' locations in the same organization, same building, and same floor. You would never know which of the two rooms you should be looking in.

7.1.1.2 Levels that have already been filled out must always be filled out

If you have a building with a floor and a room, you must not create a new room where you only enter the building and room. If you attempt to do so, the system will display '??' in the level that needs to be filled in. The system will also place '??' in existing levels if you create a new storage place and fill in a level that has not been filled in before. See Figur 7-6.

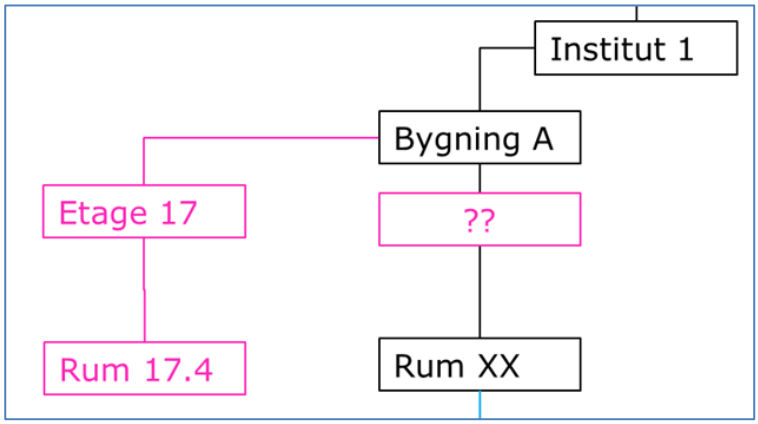


Figure 7-6: Example where a new storage place with a 'floor 17' has been created. '??' has therefore been added to the existing storage place at the floor level, to show that this level now exists in the building but has not been entered for this room.

The system will raise a warning if you enter a level that has not been entered before. A yellow warning text will be displayed at the top of the screen, and you will have to click on the '+Create' button an extra time. See Figur 7-7.

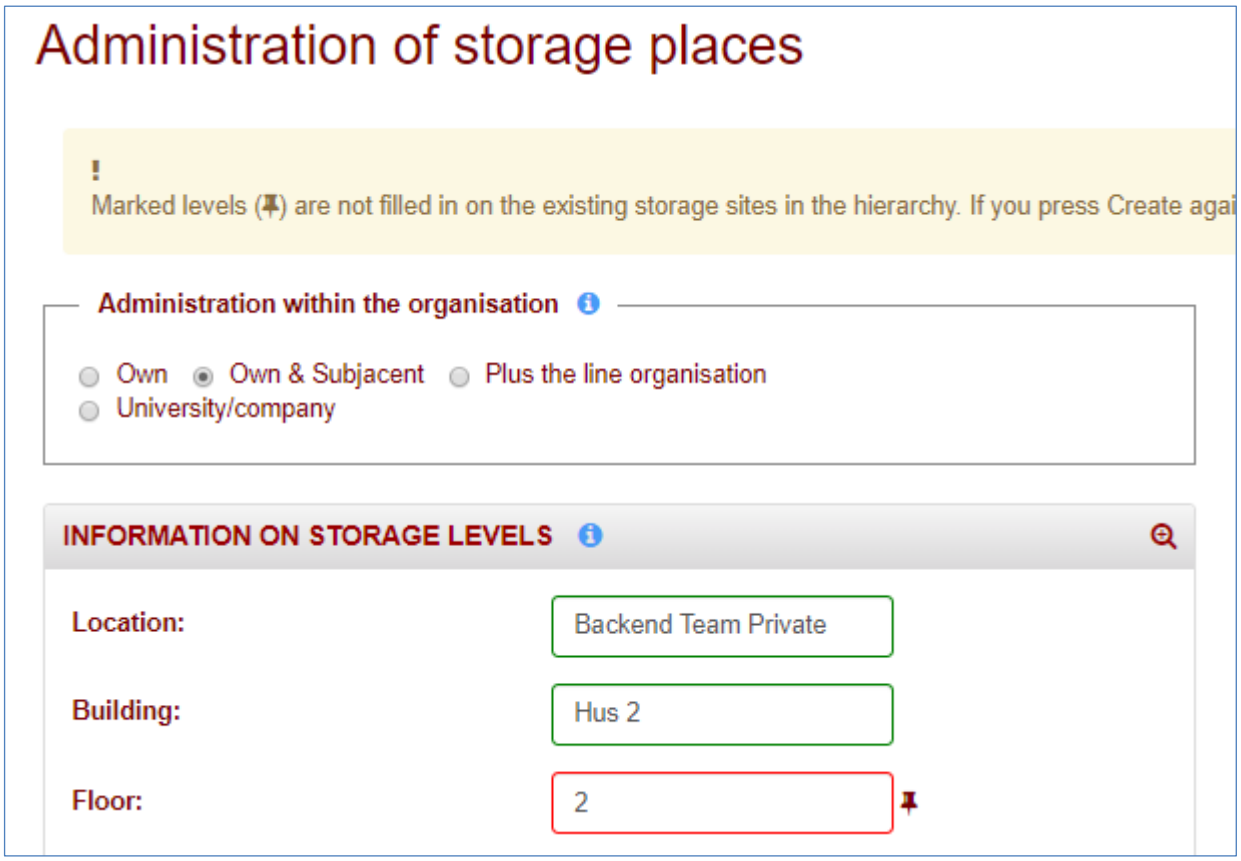


FIGURE 7-7: EXAMPLE WHERE A LEVEL IS CREATED THAT HAS NOT PREVIOUSLY EXISTED IN THE GIVEN BUILDING. A WARNING TEXT IS DISPLAYED AT THE TOP, AND A PIN ICON IS DISPLAYED NEXT TO THE NEW LEVEL. IF THE USER CLICKS ON '+CREATE' A SECOND TIME, THE EXISTING PLACES IN BUILDING '209' WILL HAVE '??' ADDED IN THEIR FLOOR FIELD.

7.1.1.3 CHEMICALS MUST BE STORED AT THE LOWEST LEVEL IN THE HIERARCHY

You cannot store chemicals in the location if a building has been created in the organization, and you cannot store chemicals in the building if a room has been created in the building. This means that if you create a new storage place at a level below a place where chemicals are already registered, these chemicals are no longer in a valid location. Instead of moving the chemicals down into the newly created level, the system creates an additional storage place called '??' at the same level as the storage place just created, and moves all chemicals to this. See FIGUR 7-8.

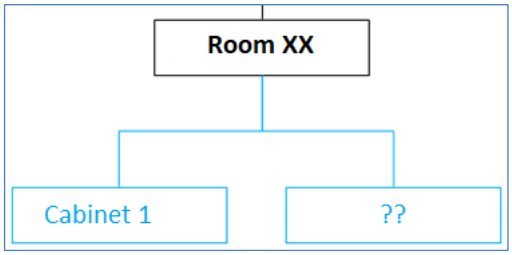


FIGURE 7-8: EXAMPLE WHERE 'CABINET 1' HAS BEEN CREATED WITHIN AN EXISTING STORAGE LEVEL, 'ROOM XX'. THE SYSTEM AUTOMATICALLY CREATES A NEW STORAGE LOCATION CALLED '??' AND MOVES CHEMICALS REGISTERED IN 'ROOM XX' TO '??'

7.1.2 Deleting a storage place

You can only delete empty storage places. You must therefore move all registered stocks from the storage place using the 'Search in stock' menu before you can delete a storage place.

When you are ready to delete a storage place, search for the name in the 'Storage places' menu and tick the checkbox adjacent to the storage place at the far right of the window (see Figur 7-9)

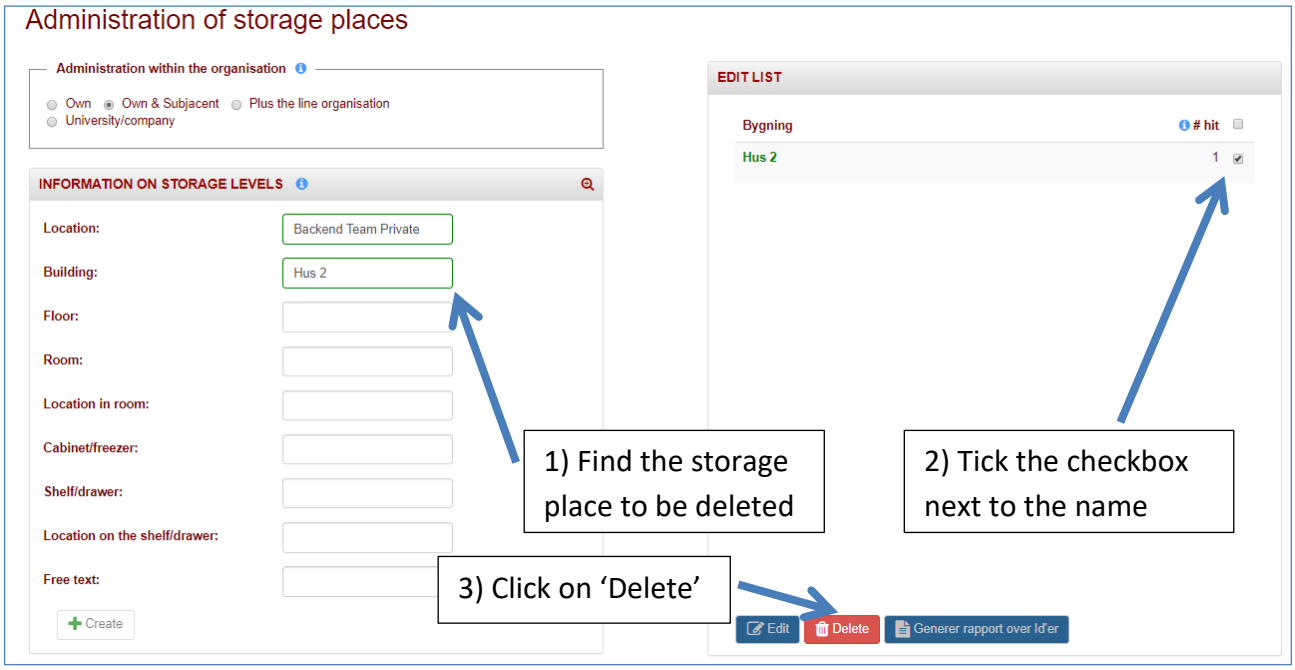


Figure 7-9: Example where building 'Hus 2' is to be deleted. You can only delete empty storage places. The 'Delete' button is not red if chemical stocks are registered in the storage place or in a sub-level.

7.1.3 Changing the name of a storage place

You can change the name of a storage place. However, you cannot change the name to a name that already exists (cf. 7.1.1.1).

From the 'Storage places' menu, find the storage place you want to rename and tick the checkbox on the far right, as shown in Figur 7-9. Instead of clicking on 'Delete', click on 'Edit' and a new window will be displayed (see Figur 7-10).

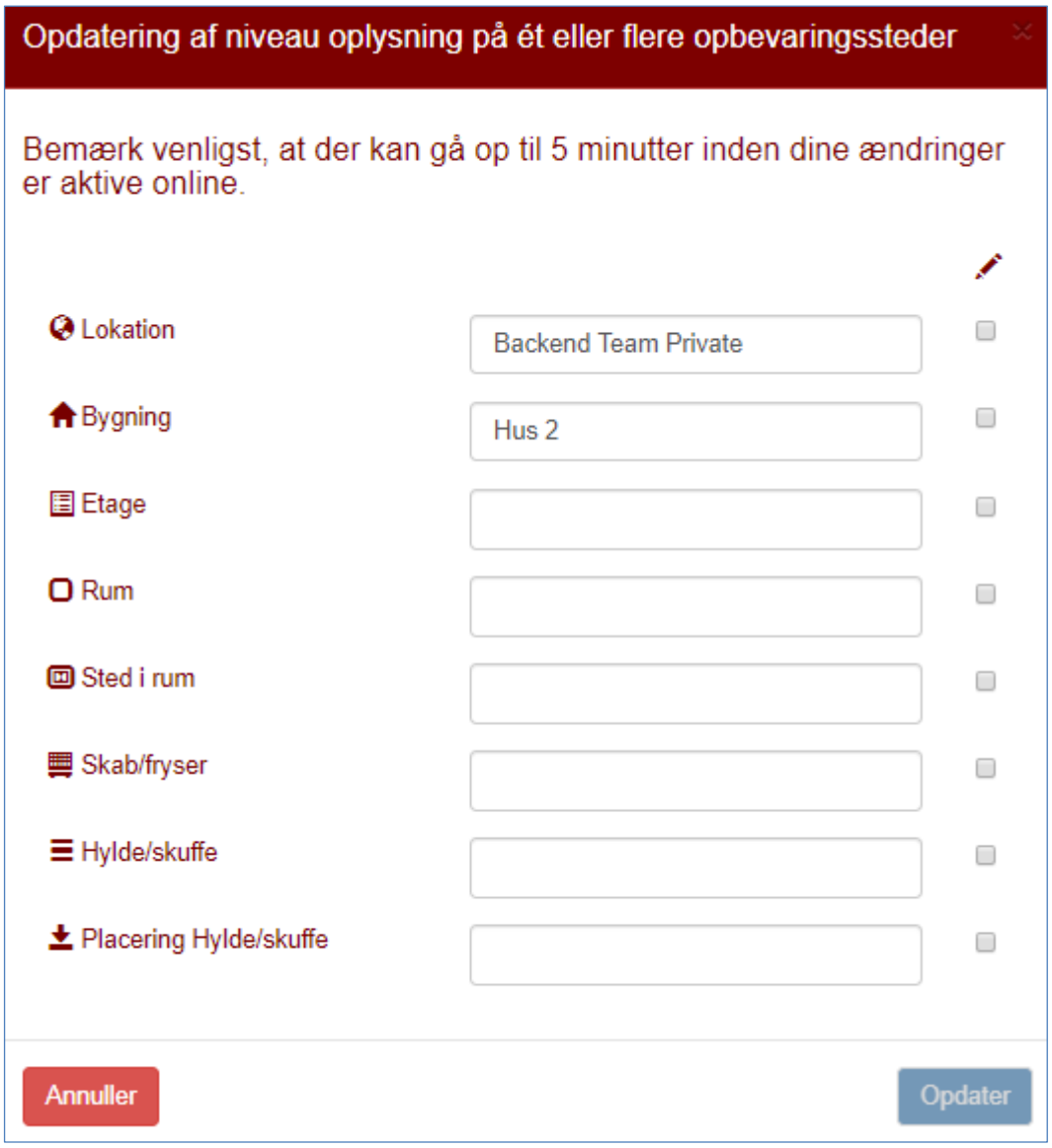


FIGURE 7-10: EDITING WINDOW WHERE YOU CAN CHANGE THE NAME OF STORAGE PLACES. SEE FIGUR 7-11

In the editing window, enter the new name in place of the old name and tick the checkbox next to the level you want to change. See FIGUR 7-11. When you click on 'Update', you will see a message stating how many storage places will change name, and you will be asked to confirm the change.

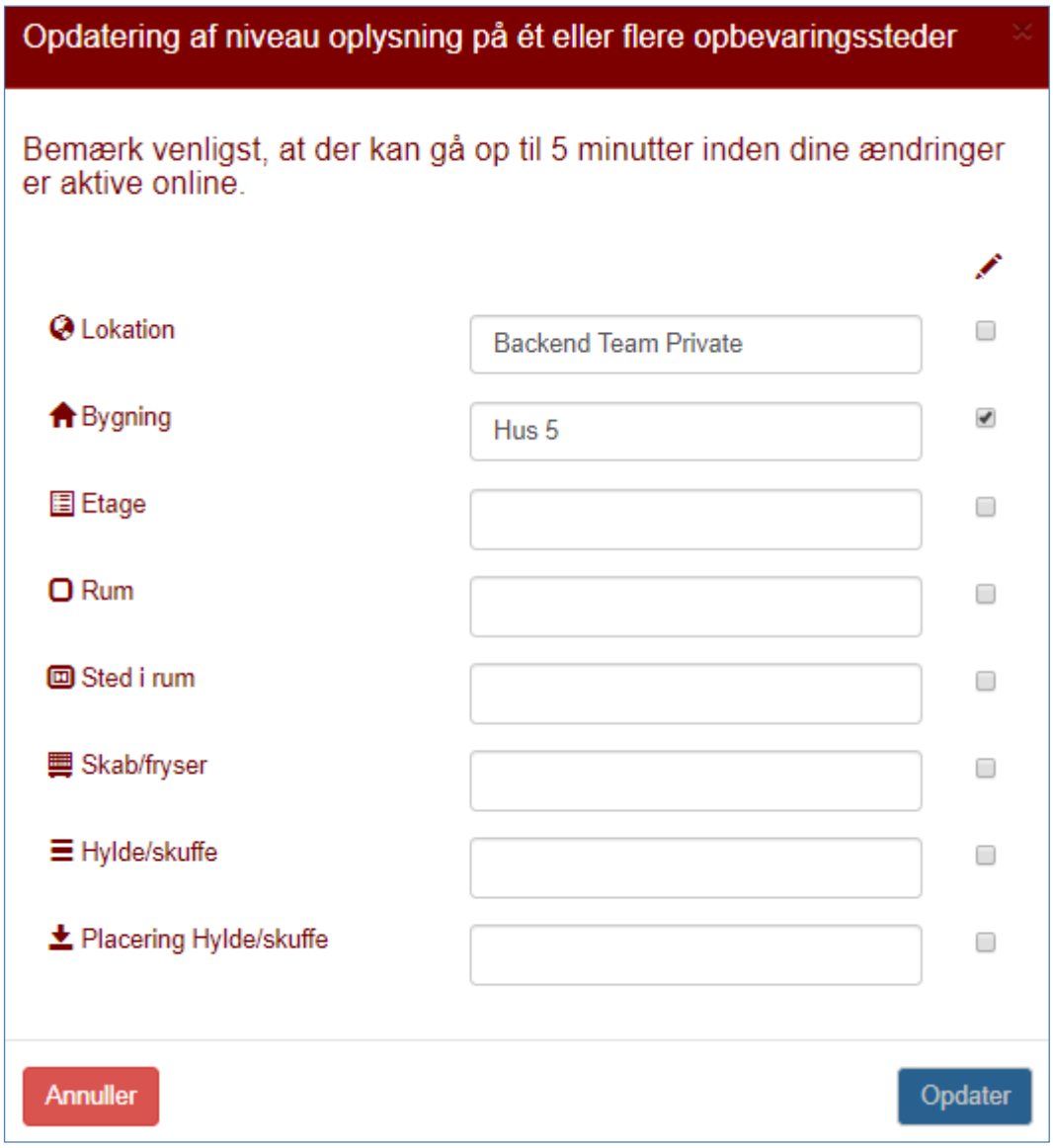


FIGURE 7-11: WINDOW FOR EDITING THE NAMES OF STORAGE PLACES

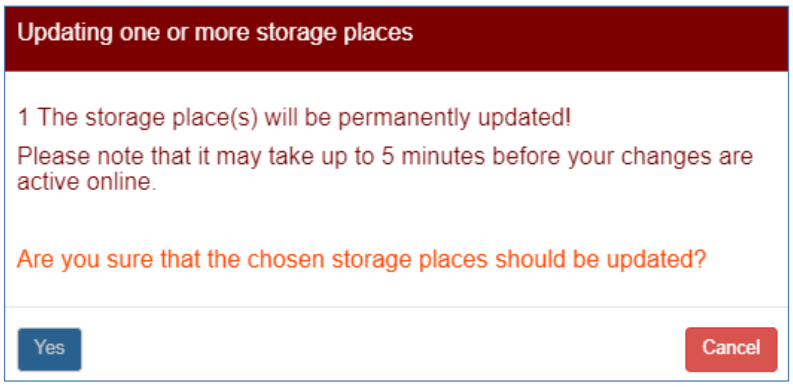


FIGURE 7-12: CHECK TO ENSURE YOU ARE CHANGING THE CORRECT NUMBER OF STORAGE PLACES.

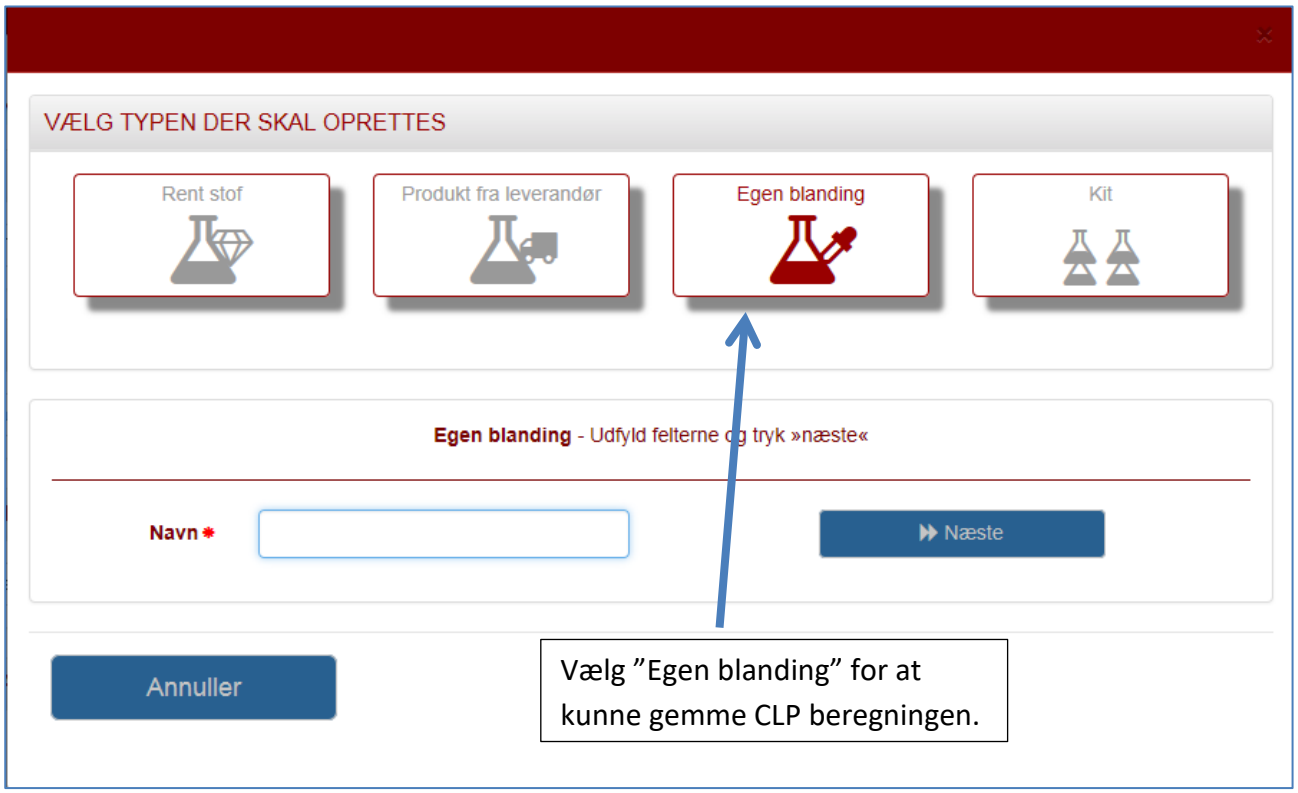
8. CLP-BEREGNINGER

Hvis et CAS stof findes i Kemibrugs database, så kan klassificeringen hentes til CLP-beregneren. Der overføres dog ikke specifikke koncentrationsgrænser fra den harmoniserede liste.

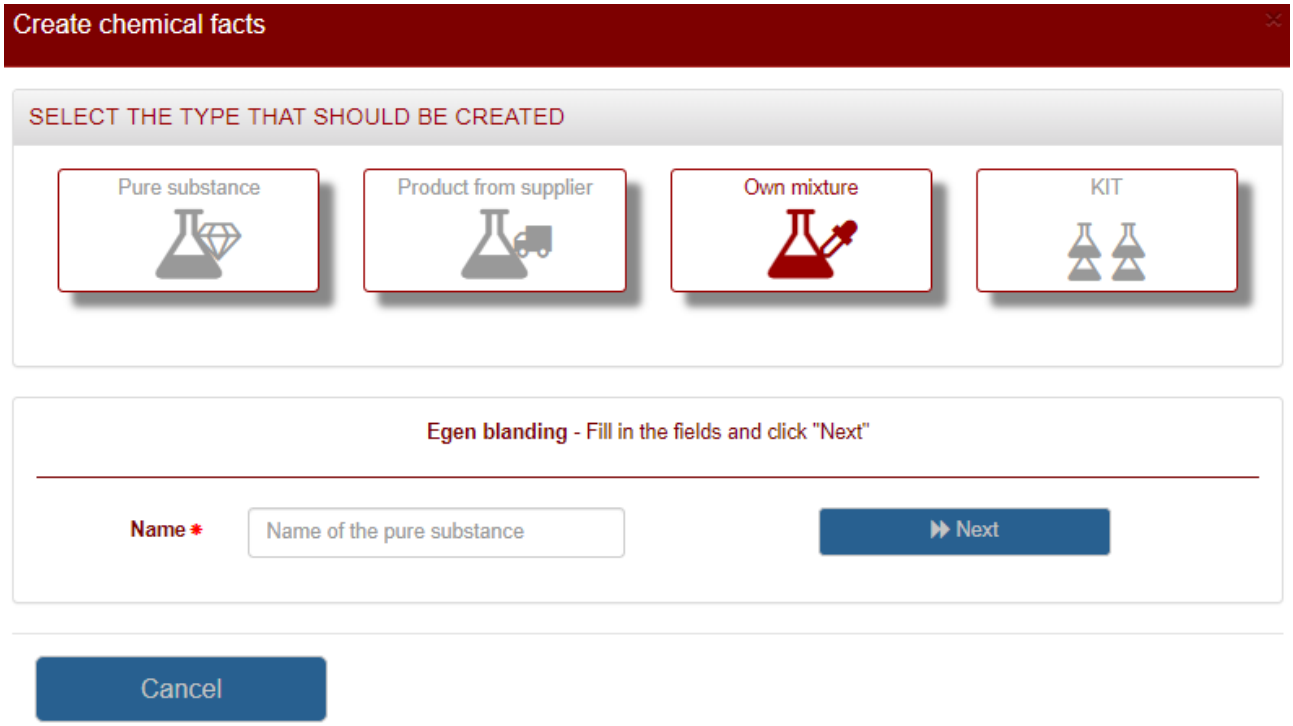
Man kan starte CLP beregneren enten ved at klikke på "CLP (Gemmes ikke)" eller gennem "Opret kemikalie". I "CLP (gemmes ikke)" kan man ikke gemme resultatet, men man kan lave de samme beregninger og få etiketten printet ud. Denne funktion kan være praktisk, hvis man har et øvelseshold, der skal regne på den samme blanding. På den måde undgår man at der oprettes et antal ens lokale registreringer.

8.1 INDTASTNING AF KEMIKALIER

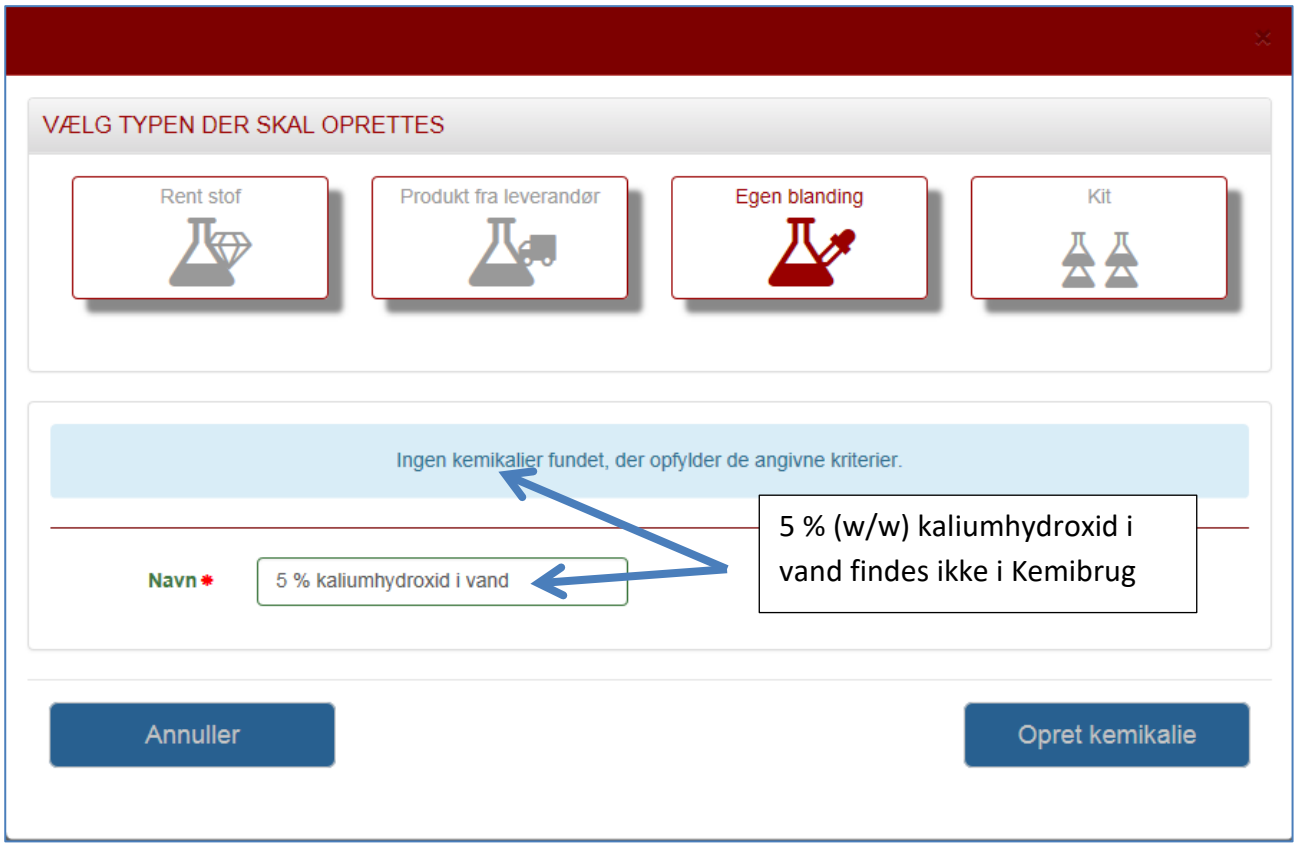
For at lave en CLP beregning på en blanding skal man vælge "Opret kemikalie" og "egen blanding":



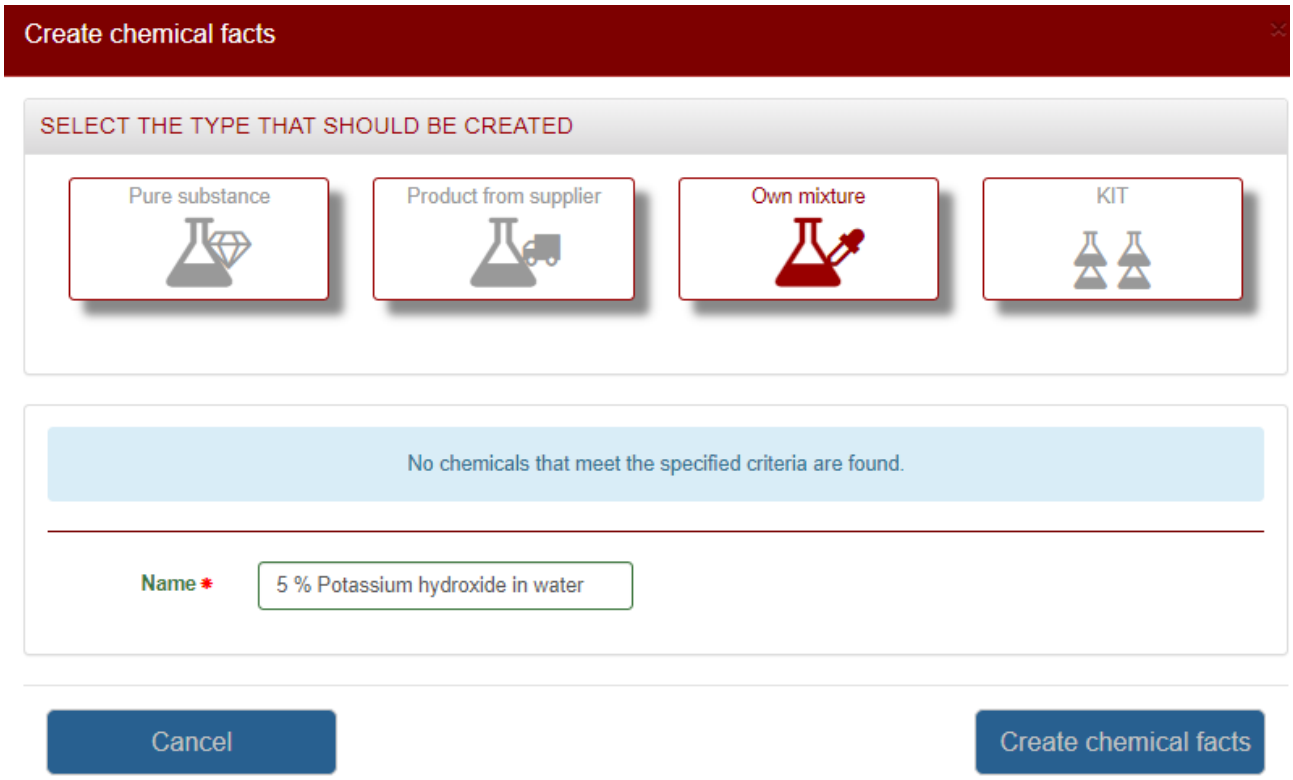
FIGUR 8-1: VÆLG "EGEN BLANDING" FOR AT BRUGE CLP BEREGNEREN TIL AT FINDE EN KLASSIFICERING OG EN MÆRKNING.



Hvis man f.eks. vil lave en 5% (w/w)-kaliumhydroxidopløsning i vand, så skriver man et navn, som er passende, f.eks. ”5 % kaliumhydroxid i vand” i navnefeltet og trykker ”>> næste”. Systemet kontrollerer, om der allerede findes en blanding med det navn:

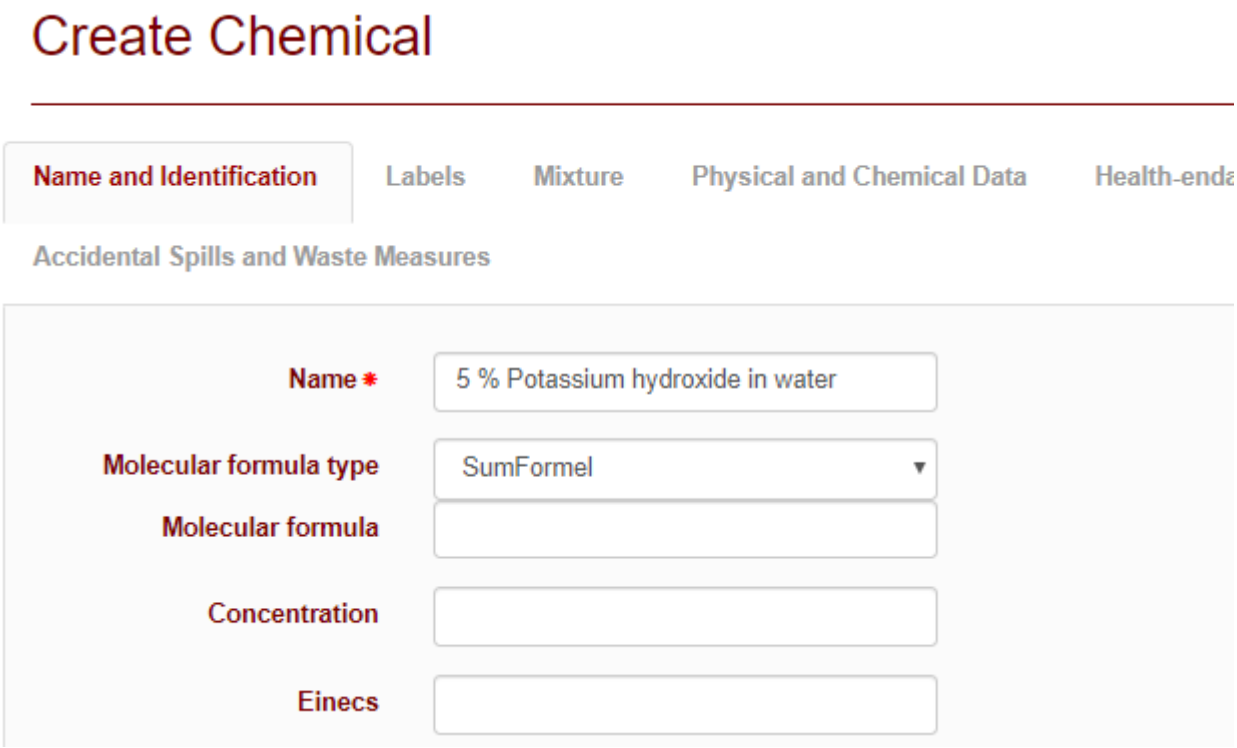


FIGUR 8-2: VÆLG TYPE OG INDTAST NAVNET PÅ DET STOF, DER SKAL OPRETTES. KEMIBRUG KONTROLLERE OM STOFFET ALLEREDE FINDES OG MAN FÅR MULIGHEDEN FOR AT OPRETTE ELLER ANNULLERE.

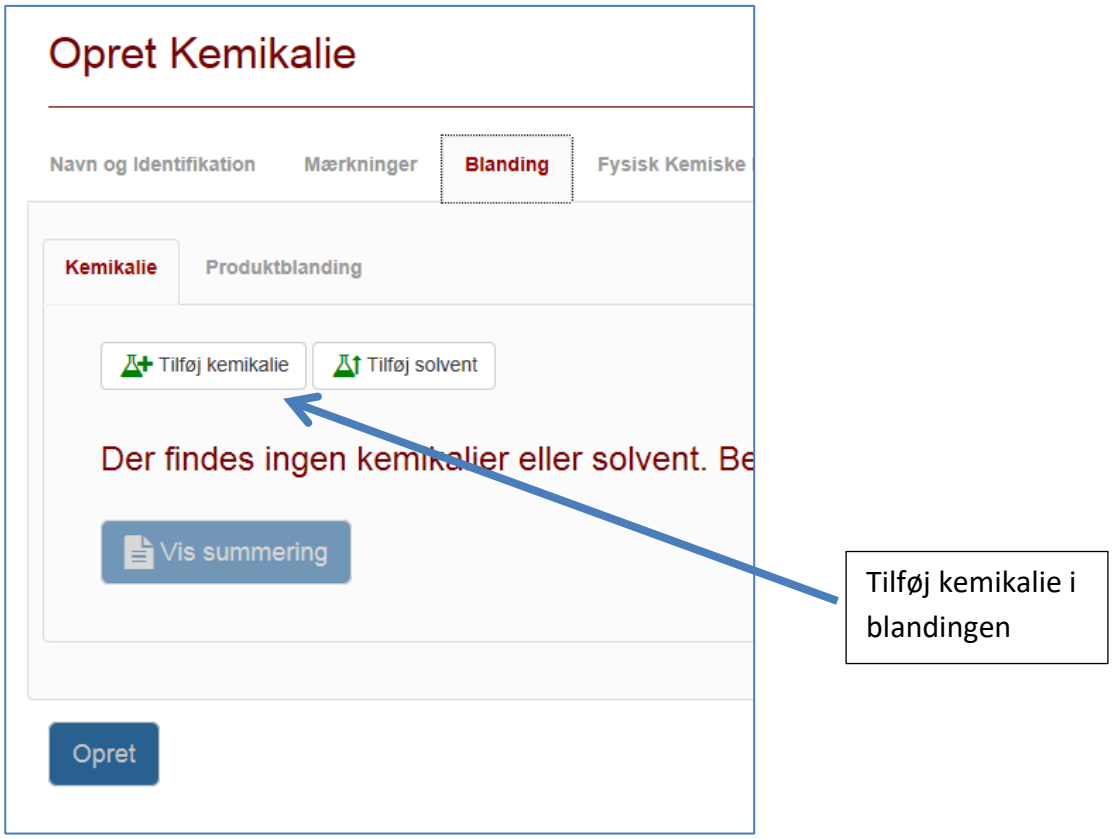


Hvis blandingen ikke allerede findes, bliver man spurgt om man vil oprette den. Hvis man trykker på "Opret kemikalie", kommer man til næste skærmbillede FIGUR 8-3:

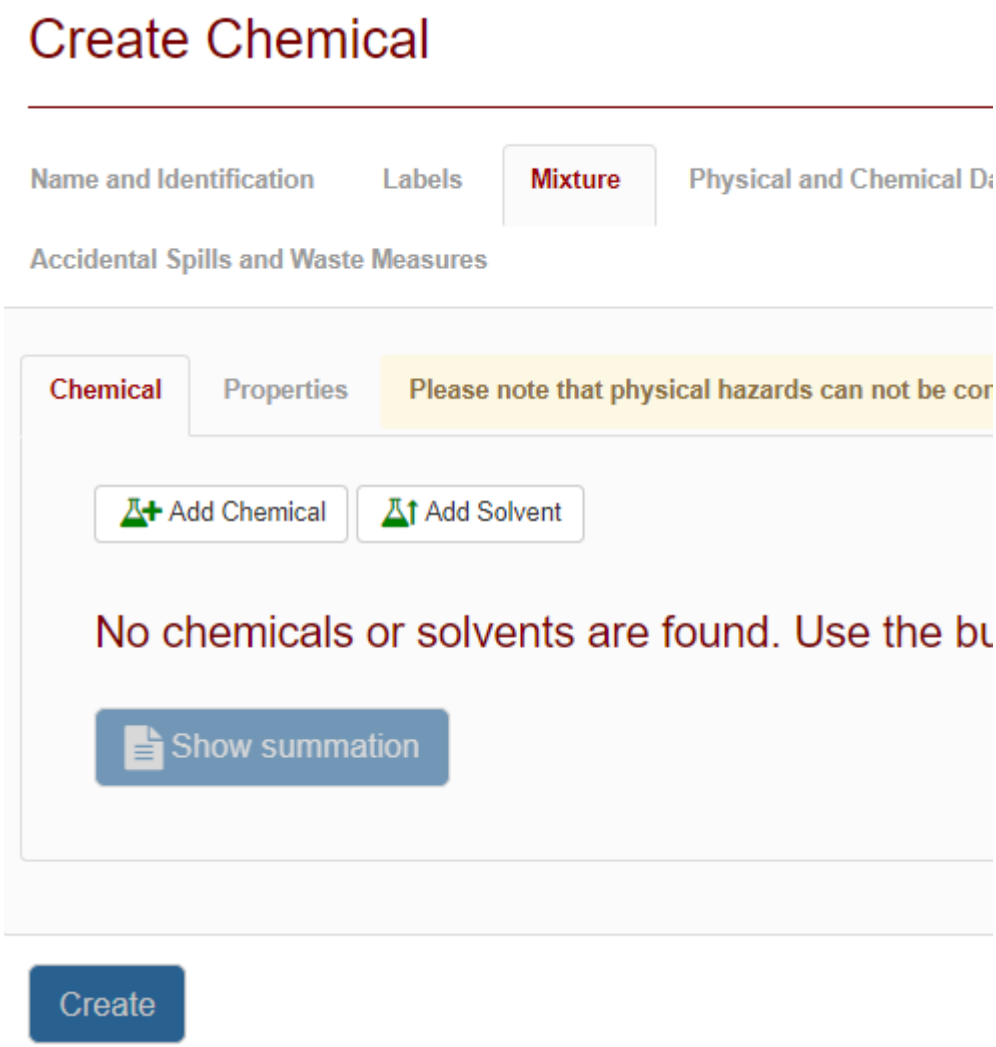
FIGUR 8-3: KLIK PÅ FANEBLAD "BLANDING" FOR AT KOMME TIL DEN MENU, HVOR MAN INDTASTER INDHOLDSSTOFFERNE I BLANDINGEN.



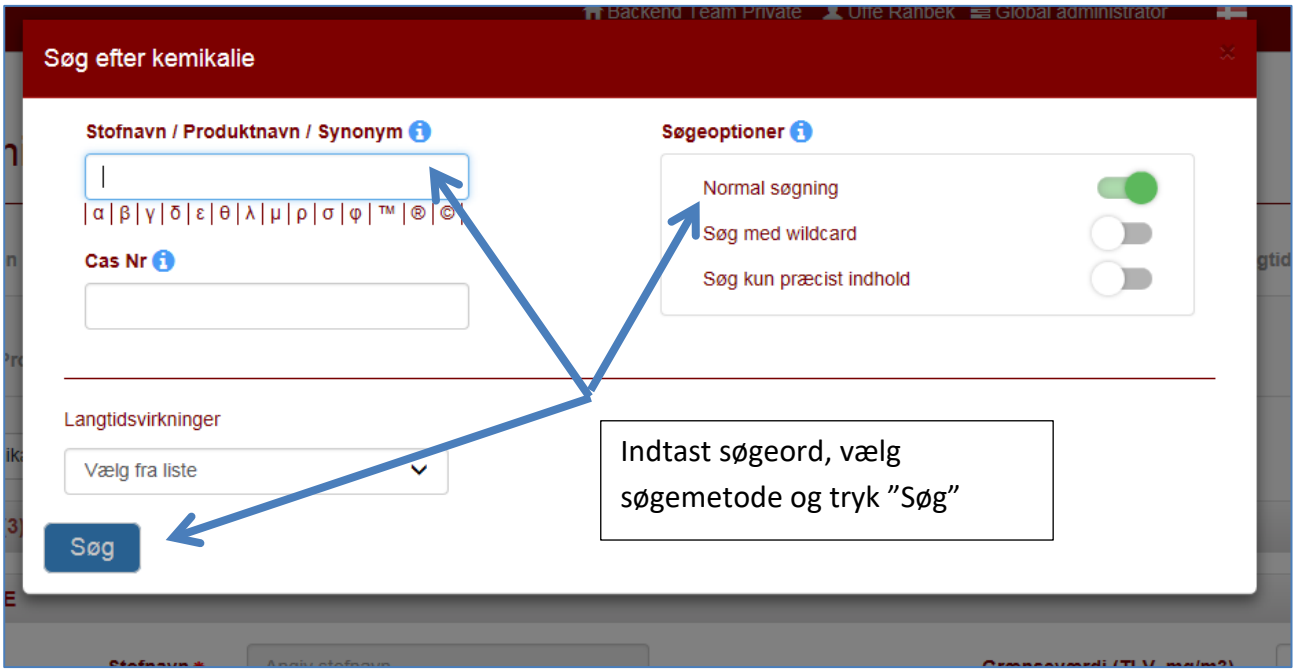
I faneblad "Blanding", bliver man ført videre til CLP-beregneren FIGUR 8-4:



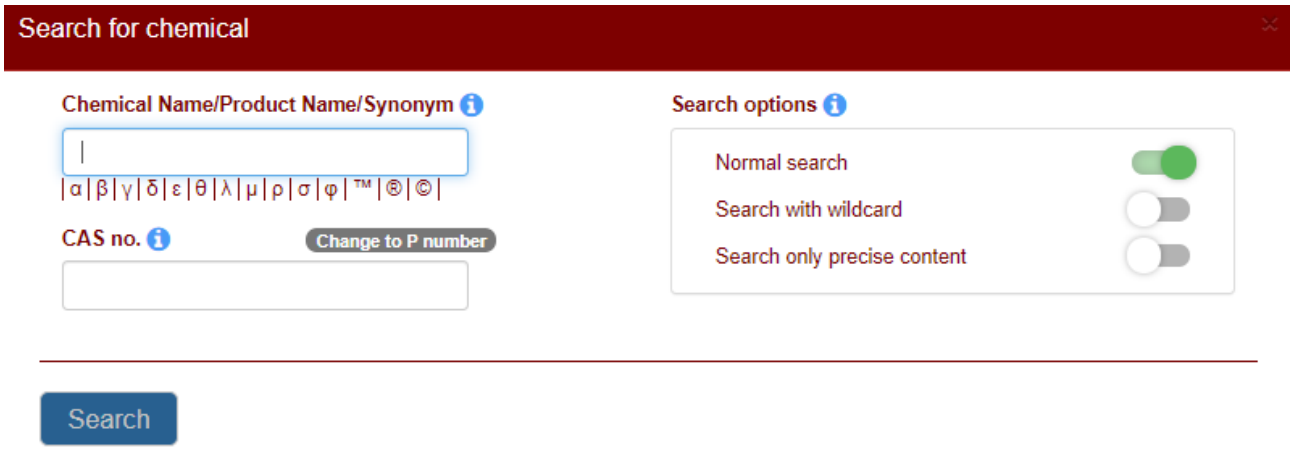
FIGUR 8-4: VÆLG FANEBLAD "BLANDING" OG KLIK PÅ "TILFØJ KEMIKALIE" FOR AT TILFØJE EN KOMPONENT TIL BLANDINGEN.



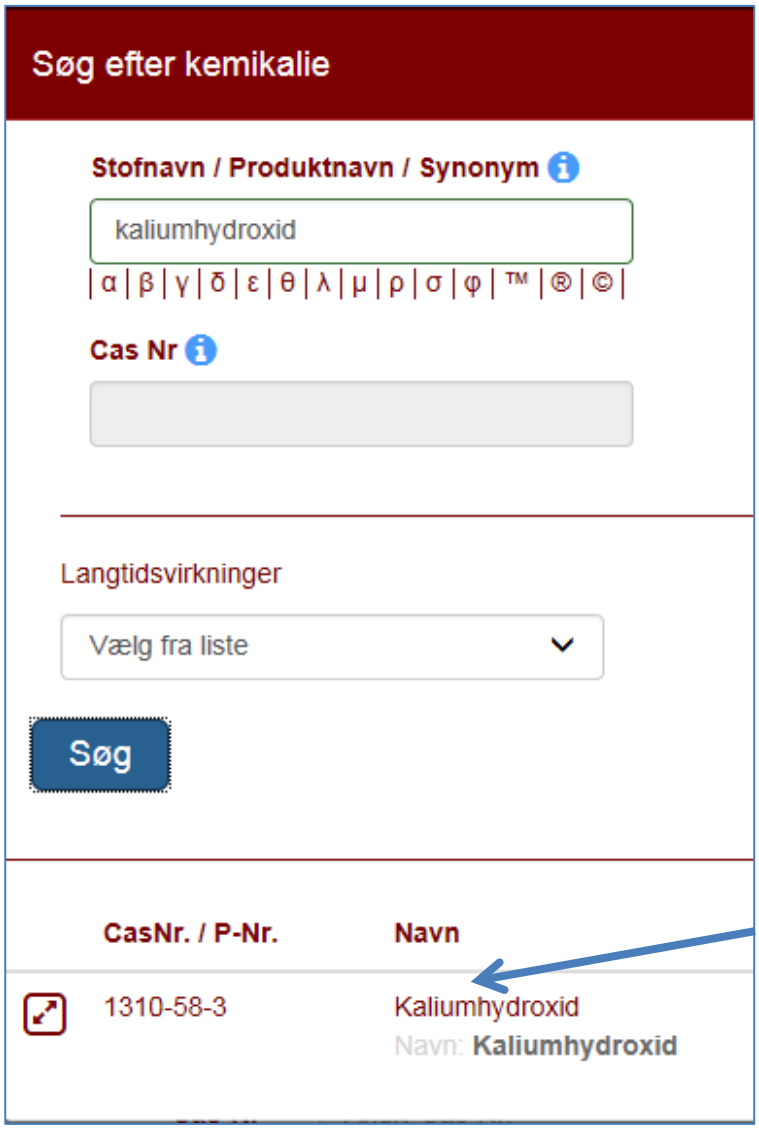
Tryk på ”Tilføj kemikalie” for at vælge et kemikalie i blandingen:



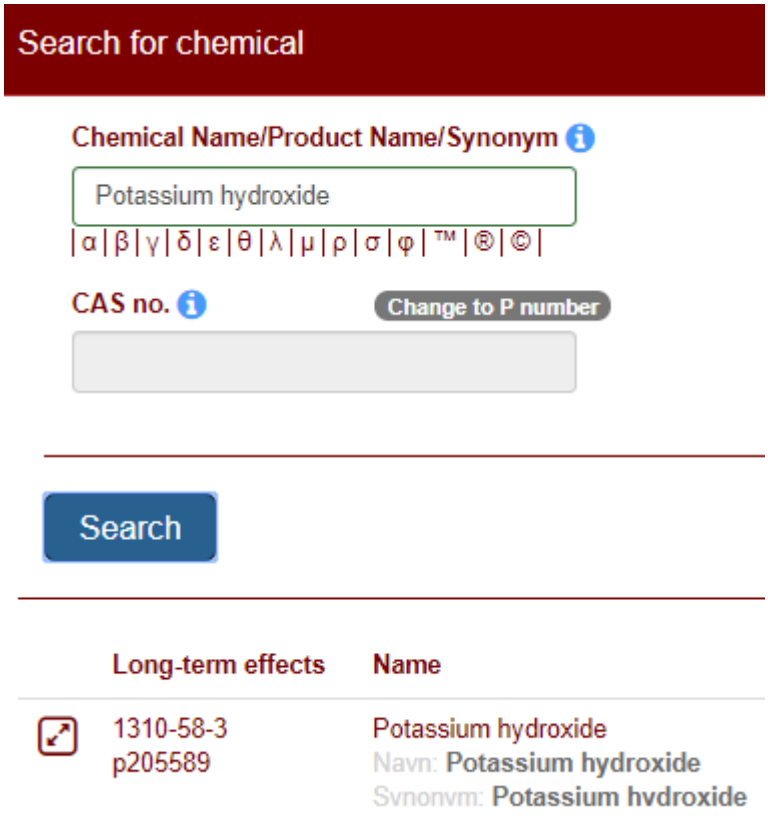
FIGUR 8-5: VED SØGNING SKAL MAN INDTASTE NAVNET, VÆLGE SØGE-STRATEGI OG TRYKKE "SØG"



Her indtastes i dette eksempel "Kaliumhydroxid" i feltet "Stofnavn" og der trykkes på "Søg" FIGUR 8-6:



FIGUR 8-6: VÆLG KEMIKALIET, SOM MAN VIL SE KBA, STOFKORT ELLER ETIKET

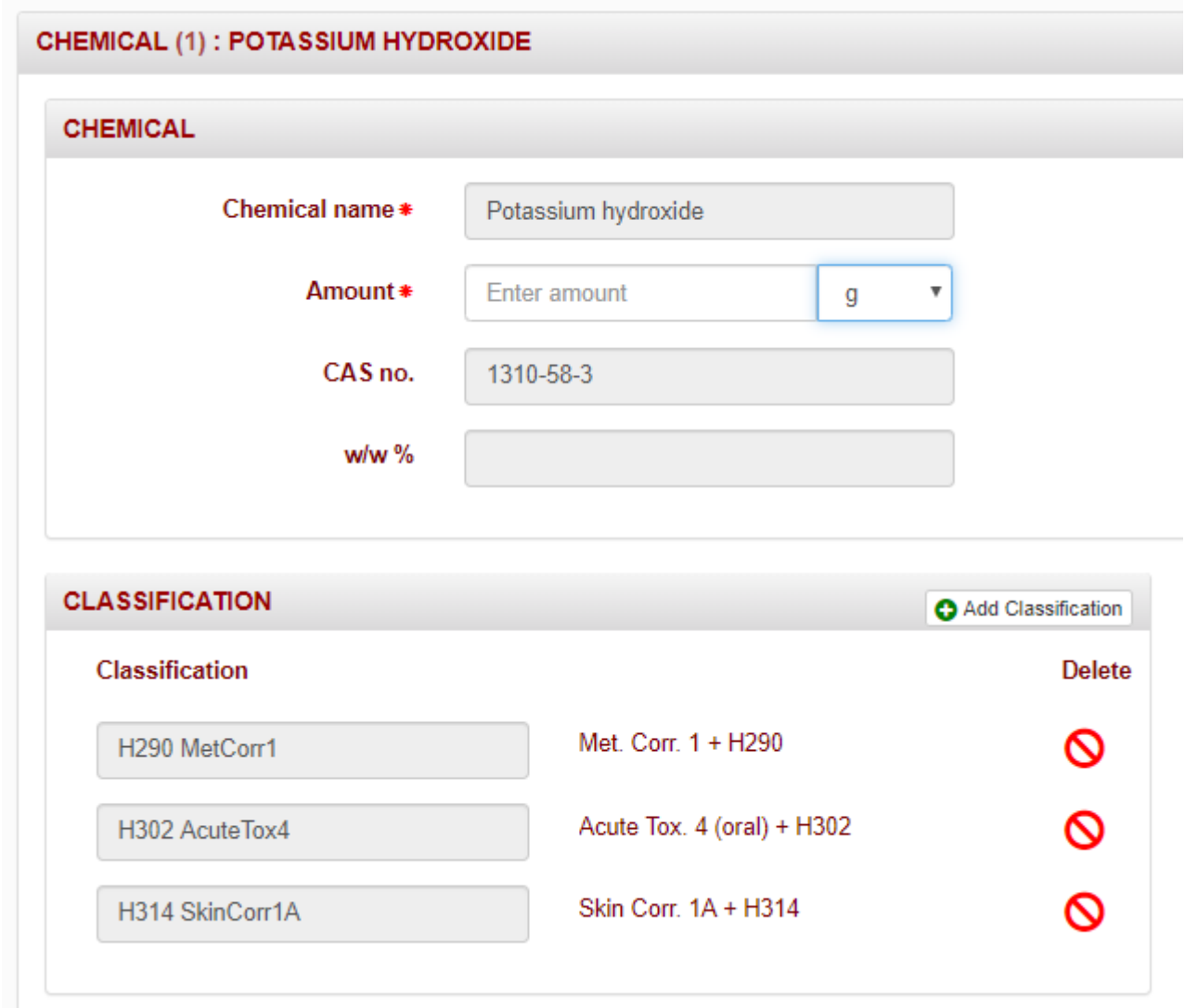


Klik på stofnavnet, der kommer frem af søgningen, for at flytte stofdata over til CLP-beregneren. Hvis stoffet ikke findes, så skal man oprette det først, og så tilbage til CLP-beregneren hvor man søger stoffet frem og vælger det og derefter tilføjer man de relevante klassificeringer.

Felterne, der er markeret med røde stjerner, udfyldes:

TIP: VÆLG "G" TIL W/W OG "ML" TIL V/V OG SØRG FOR AT ENDE PÅ ET TOTAL MÆNGDE PÅ 100 G ELLER ML

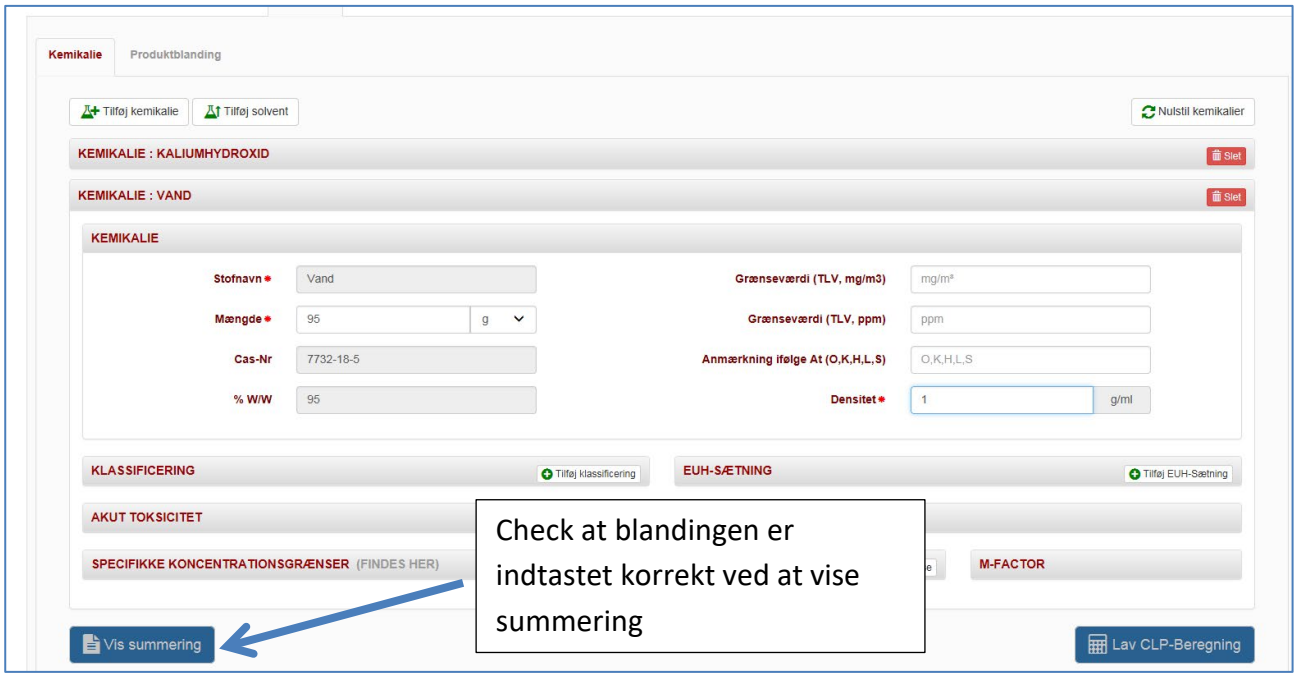
FIGUR 8-7: INDTAST MÆNGDEN AF STOFFET I BLANDINGEN. VÆGT-% KAN INDSÆTTES HVIS MAN VÆLGER ENHEDEN G OG KONTROLLERE, AT MAN I ALT NÅR OP PÅ 100 G. VOLUMEN-% KAN INDSÆTTES, HVIS MAN VÆLGER ML OG KONTROLLERE, AT MAN I ALT NÅR 100 ML.



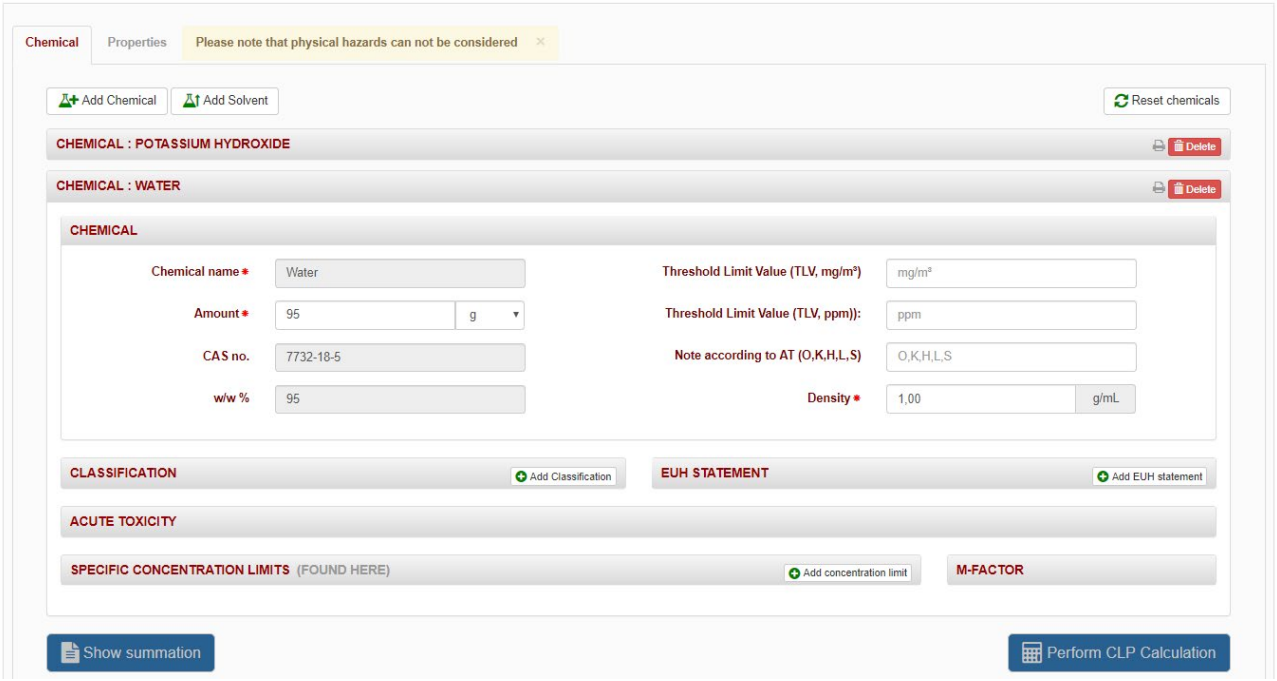
CLP beregninger bliver altid lavet på vægt/vægt procenter. Densiteten skal derfor bruges til at beregne enten massen af et volumen eller til at beregne volumen af en masse, hvor der tilsættes en solvent op til et bestemt volumen.

Det betyder, at densiteten ikke bruges til beregningen, hvis man indtaster sine data som vægt/vægt og derfor kan man indtaste ”1” som en vilkårlig densitet.

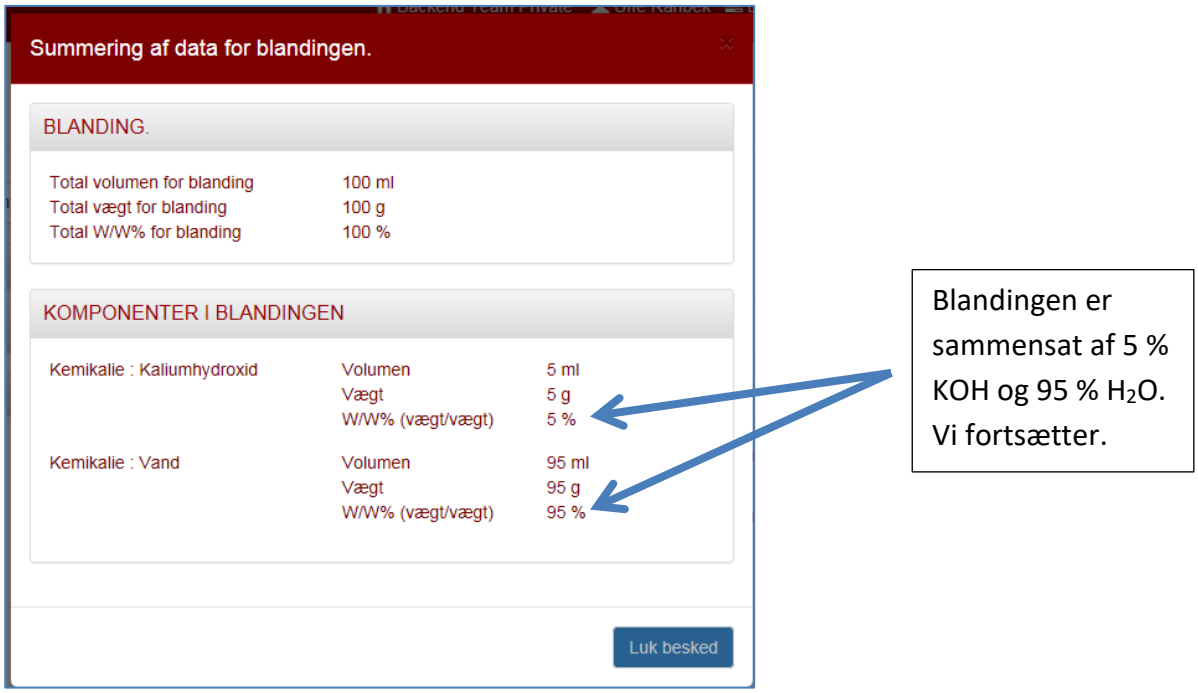
Derefter klikkes på ”Tilføj kemikalie” og der indtastes ”vand” i søgefeltet og vand vælges som kemikalie. I CLP-beregneren indtastes 95 g vand, se FIGUR 8-8 :



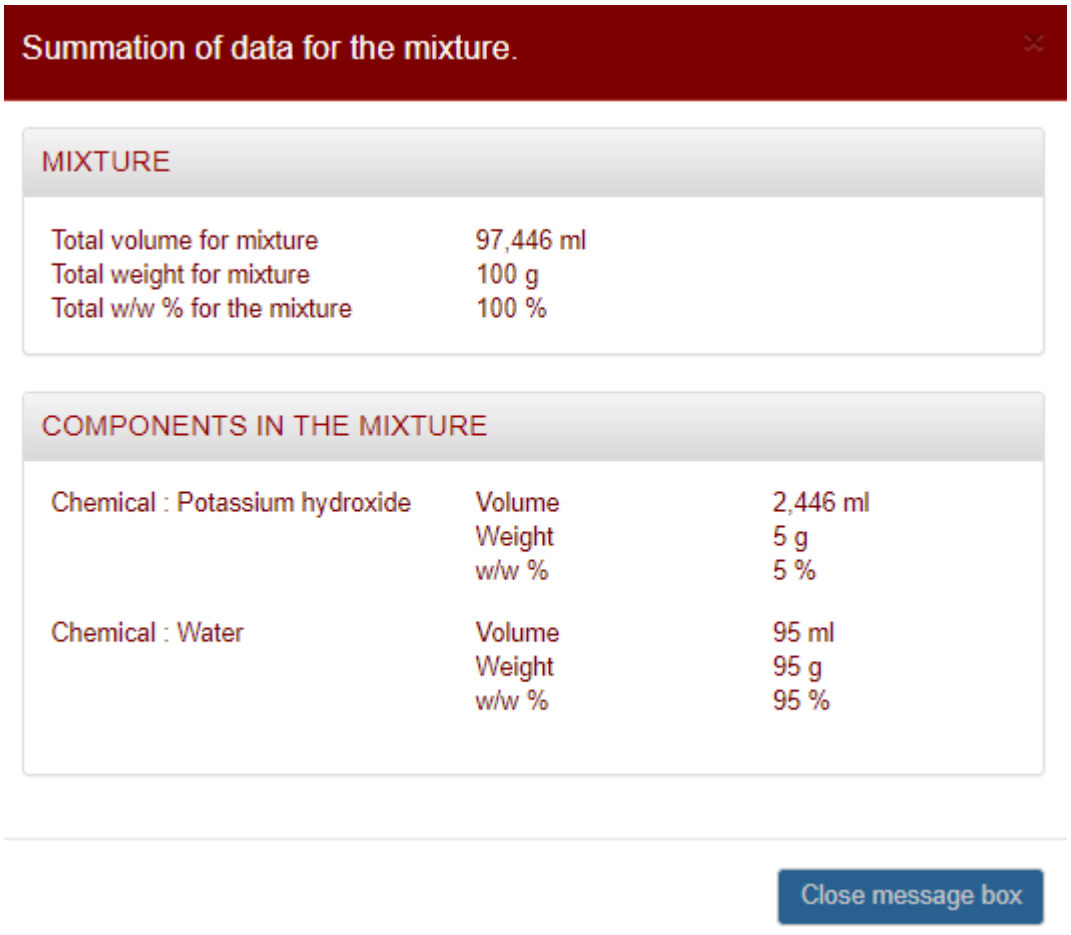
FIGUR 8-8: NÅR INDHOLDSSTOFFERNE ER INDTASTET, KAN MAN KLIKKE PÅ "VIS SUMMERING" FOR AT KONTROLLERE, AT MAN HAR INDTASTET DATA KORREKT.



Tryk på "Vis summering", for at kontrollere, at indtastningerne er lavet korrekt, så blandingen er en 5 % KOH i vand:



FIGUR 8-9: VIS SUMMERING AF BLANDINGEN FOR AT KONTROLLERE, AT DATA ER INDTASTET KORREKT.

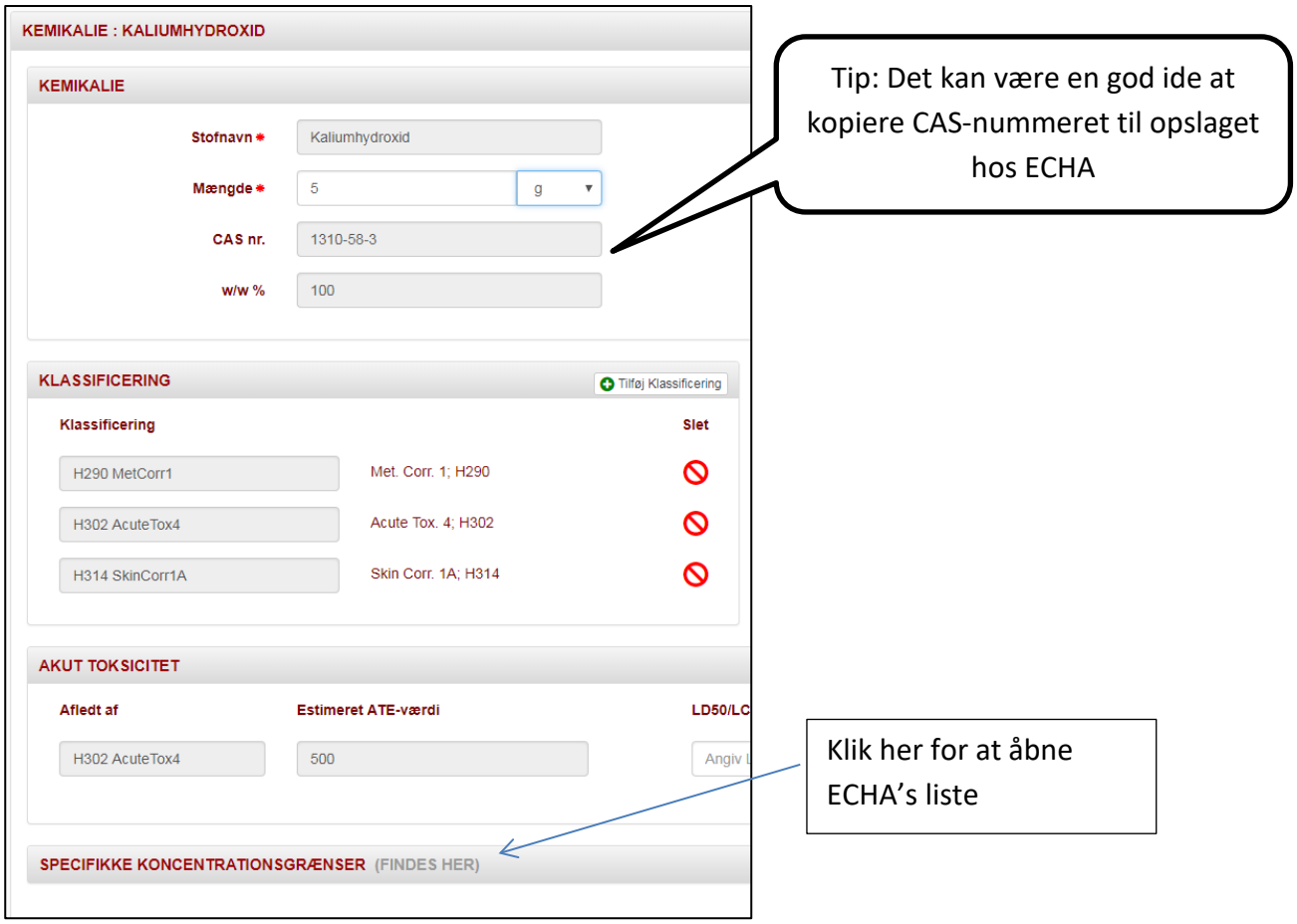


Luk summering.

8.2 Specifikke koncentrationsgrænser

Nogle af de almindelige stoffer har en specifik koncentrationsgrænse. Det er en grænse for nogle mærkninger, som man giver disse stoffer, fordi de ikke følger de helt generelle grænser.

Man kan finde de specifikke koncentrationsgrænser hos ECHA ved at klikke på linket i Kemibrug, se



Figur 8-10: Specifikke koncentrationsgrænser kan findes hos ECHA.

CHEMICAL : POTASSIUM HYDROXIDE

CHEMICAL

Chemical name *	Potassium hydroxide
Amount *	5 g
CAS no.	1310-58-3
w/w %	5

CLASSIFICATION

Add Classification

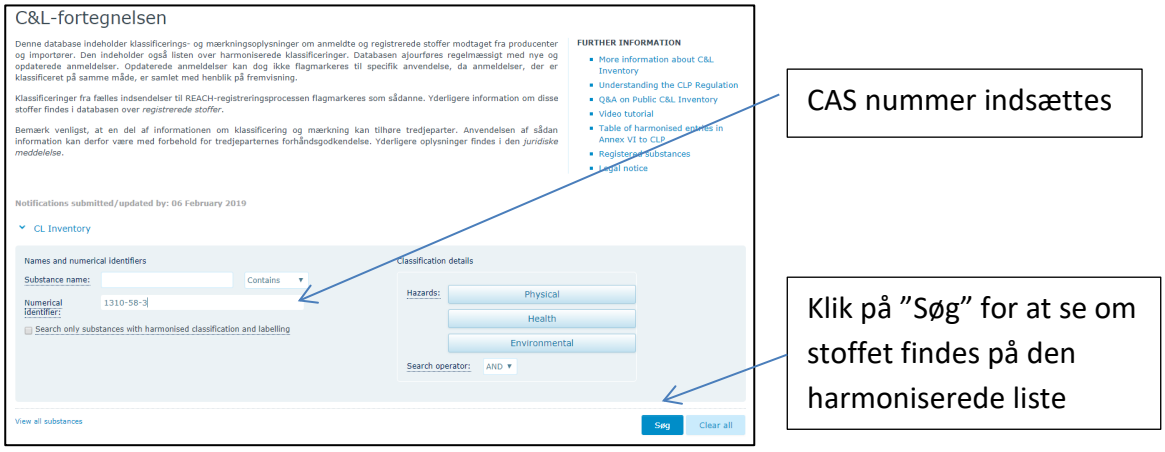
Classification		Delete
H290 MetCorr1	Met. Corr. 1 + H290	
H302 AcuteTox4	Acute Tox. 4 (oral) + H302	
H314 SkinCorr1A	Skin Corr. 1A + H314	

ACUTE TOXICITY

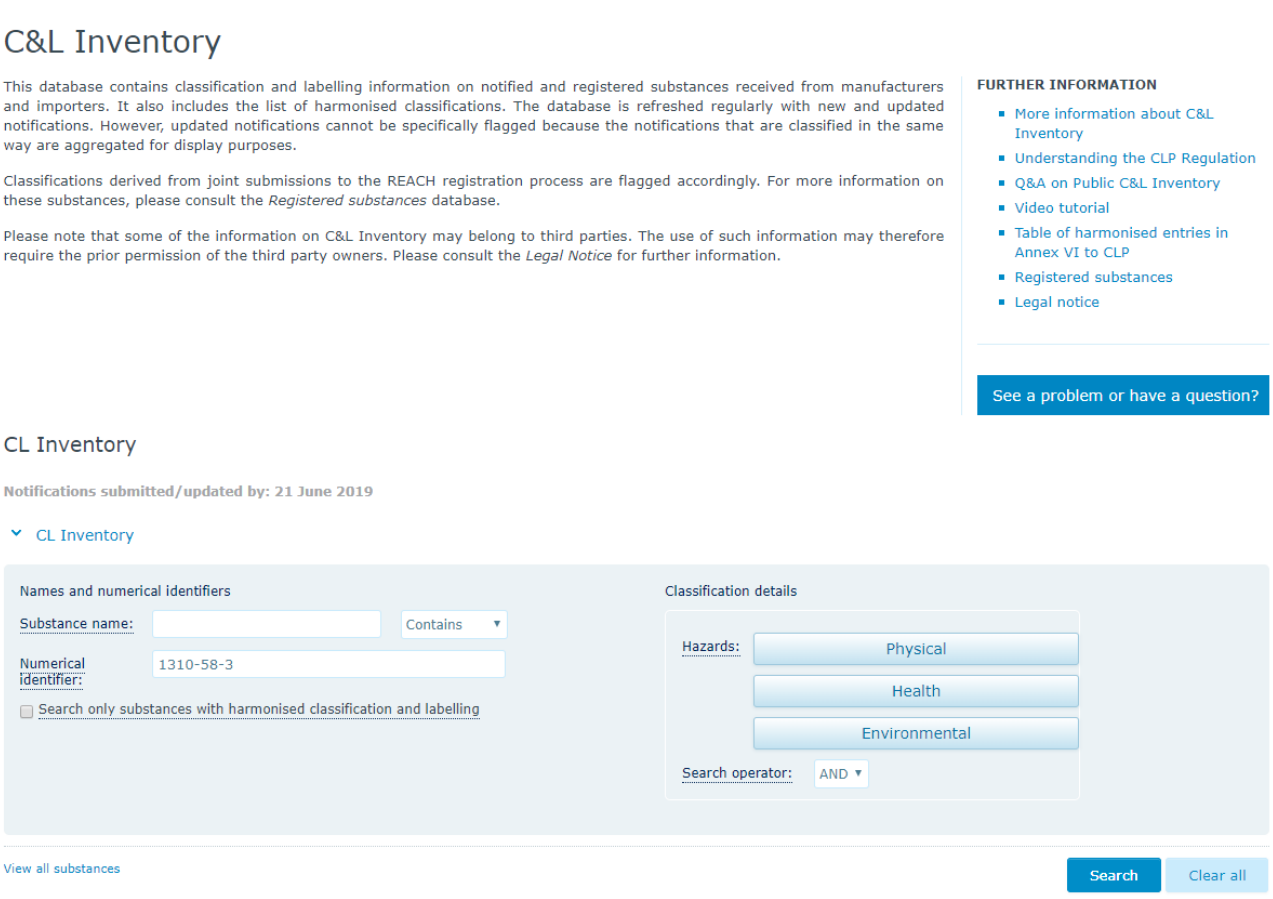
Derived from	Estimated ATE value	LD50/LC
H302 AcuteTox4	500	Enter

SPECIFIC CONCENTRATION LIMITS (FOUND HERE)

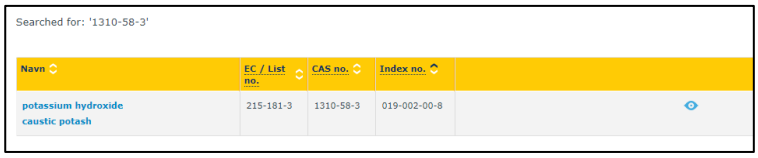
Det er som regel lettest at søge på CAS nummeret. Det sættes ind på ECHA's hjemmeside, se FIGUR 8-11



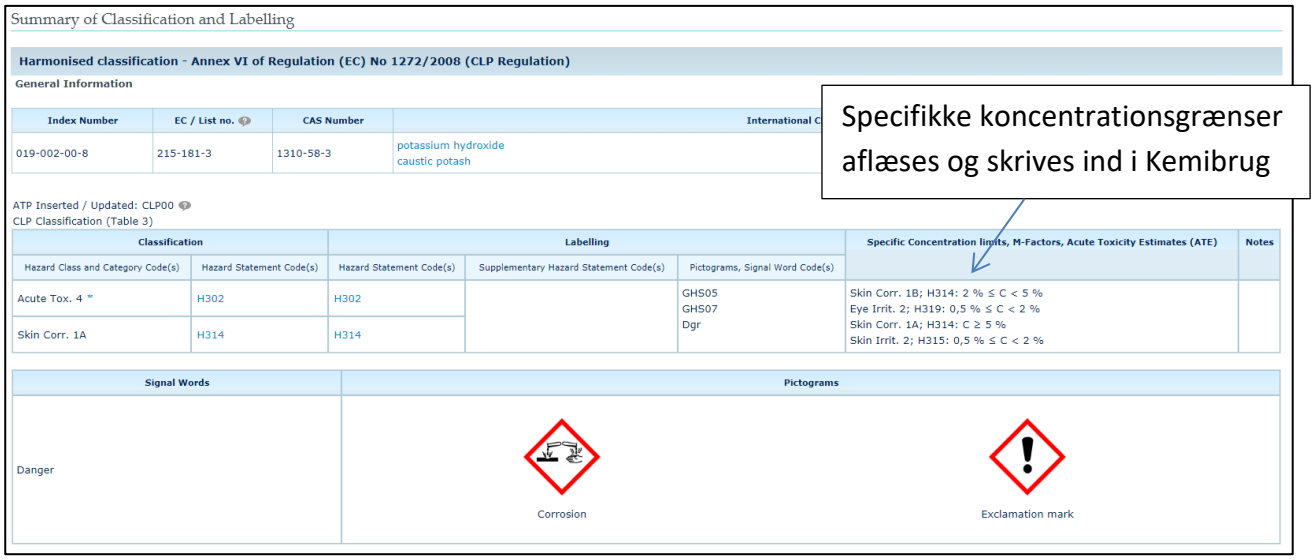
FIGUR 8-11: SØGNING PÅ HARMONISERED LISTE.



Søgning finder typisk kun et stof, hvis man har brugt CAS nummer som søgekriterie. Man klikker på det blå øje yderst til højre for at åbne for informationerne om stoffet, se FIGUR 8-12 :



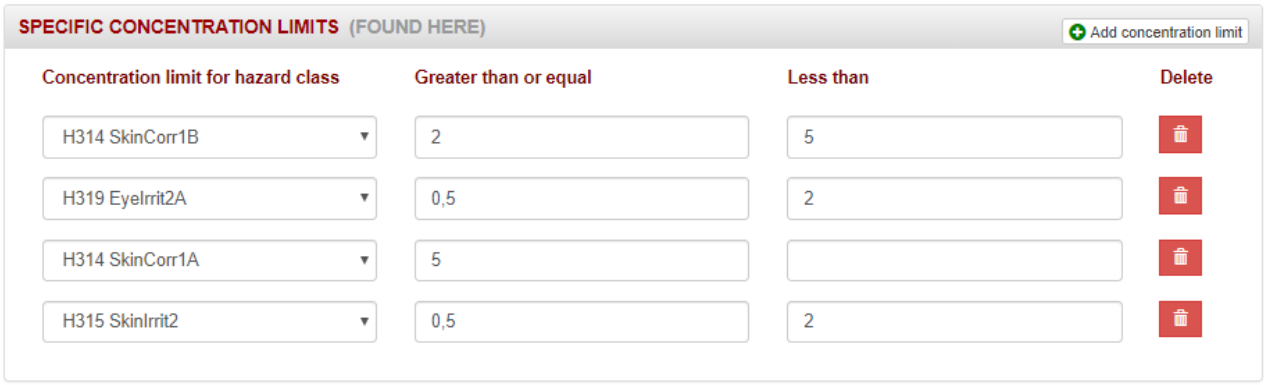
FIGUR 8-12: SØGERESULTAT FRA ECHA. KLIK PÅ DET BLÅ ØJE FOR AT ÅBNE FOR DATA OM STOFFET, SE FIGUR 8-13



FIGUR 8-13: DATA FRA DEN HARMONISEREDE LISTE OM DET SØGTE CAS-STOF. HVIS BAGGRUNDEN PÅ SIDEN ER BLÅ, SOM HER, SÅ ER STOFFET PÅ DEN HARMONISEREDE LISTE OG KLASSIFICERING OG SPECIFIKKE GRÆNSER ER VEDTAGET VED LOV. I TILFÆLDE HVOR DER ER EN STJERNE UD FOR EN KLASSIFICERING (F.EKS. HER ACUTE TOX 4), ER DET TILLADT AT KLASSIFICERE HÅRDERE, HVIS MAN HAR DATA DER UNDERSTØTTER DEN PÅSTAND.

De specifikke koncentrationsgrænser skrives ind i Kemibrug ved at klikke på "Tilføj koncentrationsgrænse" , se FIGUR 8-14

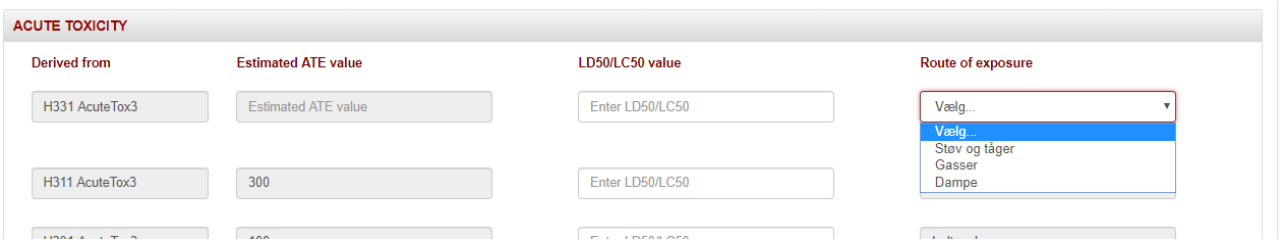
FIGUR 8-14: DATA FRA ECHA INDTASTES I KEMIBRUG UNDER "SPECIFIKKE KONCENTRATIONSGRÆNSER"



8.3 Optagelsesvej for akut toksicitet

Stoffer, der er mærket giftig ved indånding, skal karakteriseres ved optagelsesvej. Der er tre valgmuligheder: Støv og tåger; Gasser; Dampe

Figur 8-15: Valg af optagelsesvej



Forskellen i optagelsen er hvor stoffet bliver optaget i lunger, svælg eller mund og den estimerede toksiske værdier er forskellig. Hvis blandingen er en væske kan man vælge ”Dampe” som optagelsesvej. Hvis blandingen er en gas, så vælger man ”Gasser” og hvis blandingen skal forstøves eller sprayes, så skal man vælge ”Støv og tåge”.

8.4 Brandfarlige væsker

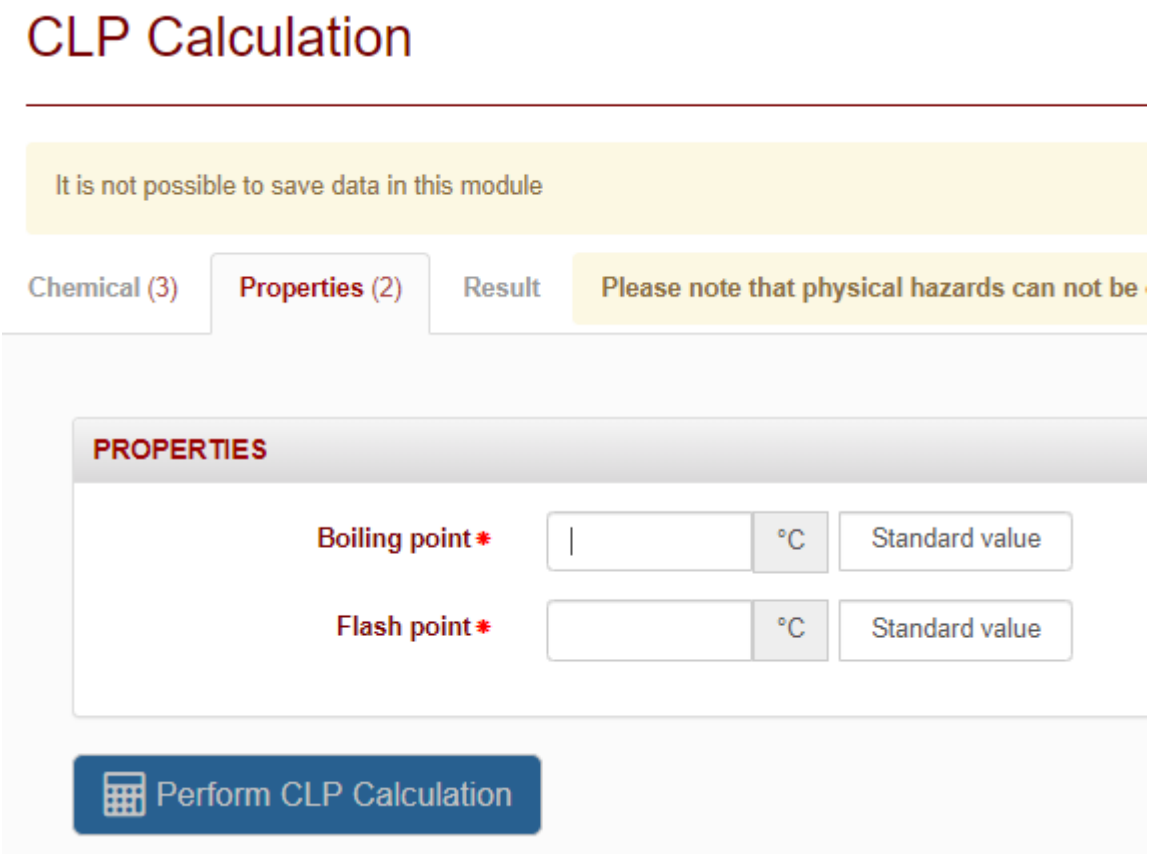
Klassificering i brandklasser foregår på baggrund af blandingens kogepunkt og flammepunkt. Ifølge CLP forordningen deles ind tre klasser, se Tabel 8-16

Klasse	Flammepunkt	Kogepunkt	Klassificering
1	< 23 °C	≤ 35 °C	H224: Yderst brandfarlig væske og damp
2	< 23 °C	≥ 35 °C	H225: Meget brandfarlig væske og damp
3	≥ 23 °C og ≤ 60 °C		H226: Brandfarlig væske og damp

Tabel 8-16: Kriterier for brandfarlige væsker (Forordning 1272/2008)

Hvis man bruger et indholdsstof, der er klassificeret som brandfarlig, så vil fanebaldet "Egenskaber" spørge om 2 oplysninger, nemlig kogepunkt og flammepunkt:

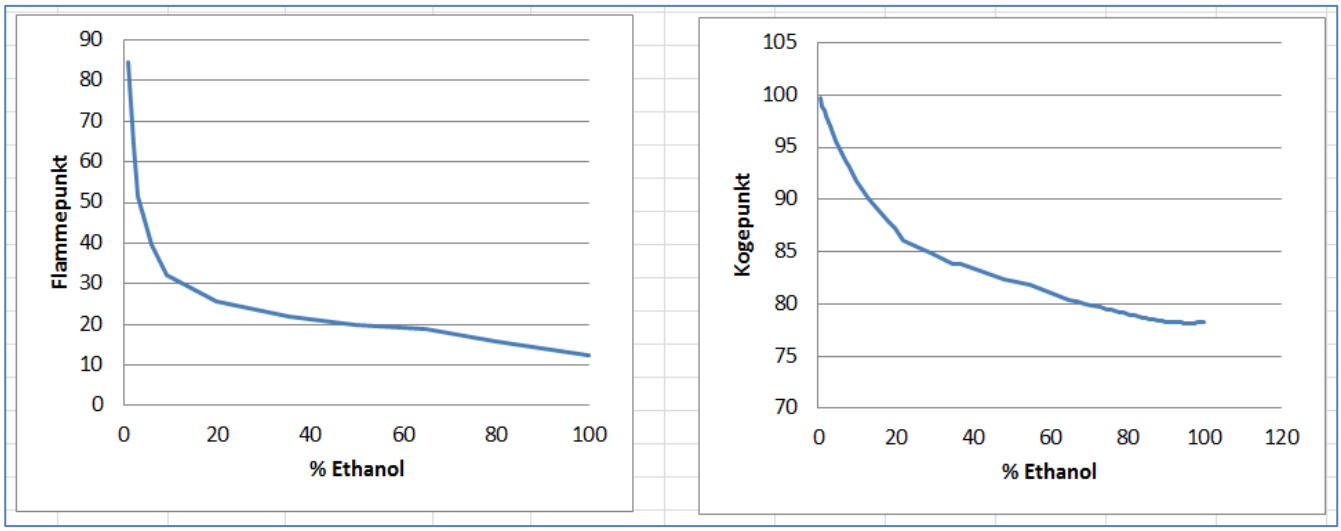
Figur 8-17: Når man vælger et brandfarligt stof som indholdsstof, vil beregneren bede om et kogepunkt og et flammepunkt



Det er altså ifølge TABEL 8-16 ikke nødvendigt at kende det præcise flammepunkt og kogepunkt, men om flammepunktet er over eller under 23 °C og om kogepunktet er over eller under 35 °C.

Man kan finde data for nogle blandinger på nettet. Hvis man ser på flammepunkts- og kogepunktskurven for vand og ethanol (se FIGUR 8-18) så kan man se, at flammepunktet ikke ændrer sig meget ved tilsætning af lidt vand. Derfor kan man som en tommelfingerregel regne med at blandinger hvor der er mere end 50 % af den brandfarlige væske, så vil blandingen have samme klassifikation som den brandfarlige væske. Dette er selvfølgelig i grov antagelse og det kan give en overklassificering. Hvis man overklassificere på denne måde vil man fejlagtigt mærke sin blanding som f.eks. ”H225: Meget brandfarlig væske og damp” og den skulle have været mærket ” H226: Brandfarlig væske og damp” og i begge tilfælde vil blandingen få ikonet med flammen.

Hvis man vil mærke sin blanding ligesom den mest brandfarlige væske i blandingen, så kan man klikke på ”Standard værdi” ud for henholdsvis kogepunkt og flammepunkt i fanblad ”Egenskaber”, se FIGUR 8-17. På denne måde vil man indsætte en værdi der giver den samme klassificering. Værdien har altså intet at gøre med det reelle flammepunkt eller kogepunkt for blandingen.



FIGUR 8-18: FLAMMEPUNKT OG KOGEPUNKT I °C FOR BLANDINGER AF ETHANOL OG VAND.

8.5 BLANDINGER SOM INDHOLDSSTOF

Nogle blandinger laves ud fra andre blandinger, f.eks. hvis man tilsætter en buffer. CLP beregneren i Kemibrug kan kun indlæse CAS stoffer og derfor kan blandingerne ikke indlæses direkte. Derfor er man nødt til at omregne hvor meget af hvert af indholdsstofferne, der tilsættes og indlæse dem et ad gangen.

8.5.1 EKSEMPEL: HI-SEQ MAINTENANCE WASH SOLUTION

Opskrift:

20 mL MQ vand
2 mL Tween 20 (CAS nr. 9005-64-5)
1,5 mL ProClin 300 (p126849)

I følge brugsanvisning indeholder ProClin:

ProClin 300

w/w %	Stofnavn	CAS nr.	Grænseværdi	M-faktor	CLP stofklassificering
3-5	5-Chlor-2-methyl-2H-isothiazol-3-on og 2 Methyl-2H-isothiazol-3-on (3:1)	55965-84-9			Acute Tox. 3 + H301; Acute Tox. 3 + H311; Acute Tox. 3 + H331; Skin Corr. 1B + H314; Skin Sens. 1 + H317; Aquatic Acute 1 + H400; Aquatic Chronic 1 + H410;
<10	Modificeret alkylcarboxylat				Aquatic Chronic 4 + H413;

ProClin 300

w/w %	Chemical name	CAS no.	Threshold Limit Value	M-factor Acute	M-factor Chonic	CLP substance classification
3-5	5-Chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H -isothiazol-3-one (3:1)	55965-84-9				Acute Tox. 3 (oral) + H301; Acute Tox. 3 (dermal) + H311; Acute Tox. 3 (inhal) + H331; Skin Corr. 1B + H314; Skin Sens. 1 + H317; Aquatic Acute 1 + H400; Aquatic Chronic 1 + H410;
<10	Modified alkyl carboxylate					Aquatic Chronic 4 + H413;

Resten af indholdet antages at være vand. Forsigtighedsprincippet anvendes og derfor går vi ud fra at blandingen indeholder de øverste grænser af indholdsstofferne – altså 5% og 10%.

Man kan derfor regne ud hvor meget af hvert af indholdsstofferne, der er i den færdige blanding, når der tilsættes 1,5 mL og vi regner det som 1,5 g:

Kemikalie	CAS nr.	Koncentration	Mængde i 1,5 ml
5-chlor-2-methyl..	55956-84-9	5 %	0,075 g (= 1,5 * 0,05)
Modificeret…	?	10 %	0,15 g (= 1,5 * 0,10)
Vand	7732-18-5	85 %	1,275 g (= 1,5 * 0,85)

Nu kan man lave et samlet skema om hvor meget af hvert af stofferne, der er i den færdige blanding:

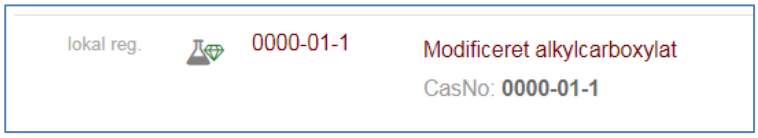
Kemikalie	CAS/p.nr	Mængde	
Vand	7732-18-5	10+10+1,3 ml	
Tween 20	9005-64-5	2 ml	
5-chlor-2-methyl..	55956-84-9	0,075 g	
Modificeret	?	0,15 g	Aqua Cron 4; H413

De tre øverste stoffer findes i Kemibrug, men det gør den modificerede alkylcarboxylat ikke.

Hvis stoffet ikke havde været mærkningspligtigt, så kunne man have registreret de ekstra 0,15 g som vand, fordi det ikke bidrager til mærkningen af blandingen.

I det her tilfælde udgør stoffet ca. 0,6 % af blandingen og H413 bidrager til mærkningen, når koncentrationen er højere end 25 % (w/w). Derfor er det ret tydeligt, at stoffet ikke bidrager til mærkningen og man kan igen inkludere den som vand.

I dette eksempel opretter vi stoffet i Kemibrug for eksemplets skyld. Stoffet oprettes som et CAS stof (se AFSNIT 5.1). Den modificerede alkylcarboxylat har ikke noget CAS nr og det kan skyldes, at leverandøren vil holde stoffet hemmeligt, eller at det ikke er kendt. Derfor oprettes det med CAS nr 0000-01-1 og i faneblad "Mærkning" tilføjes H413:



Nu kan blandingen indlæses i Kemibrug og summeringen af data ser således ud:

CLP beregningen laves ved at klikke på "Lav CLP beregning" og resultatsiden viser:

Summation of data for the mixture.

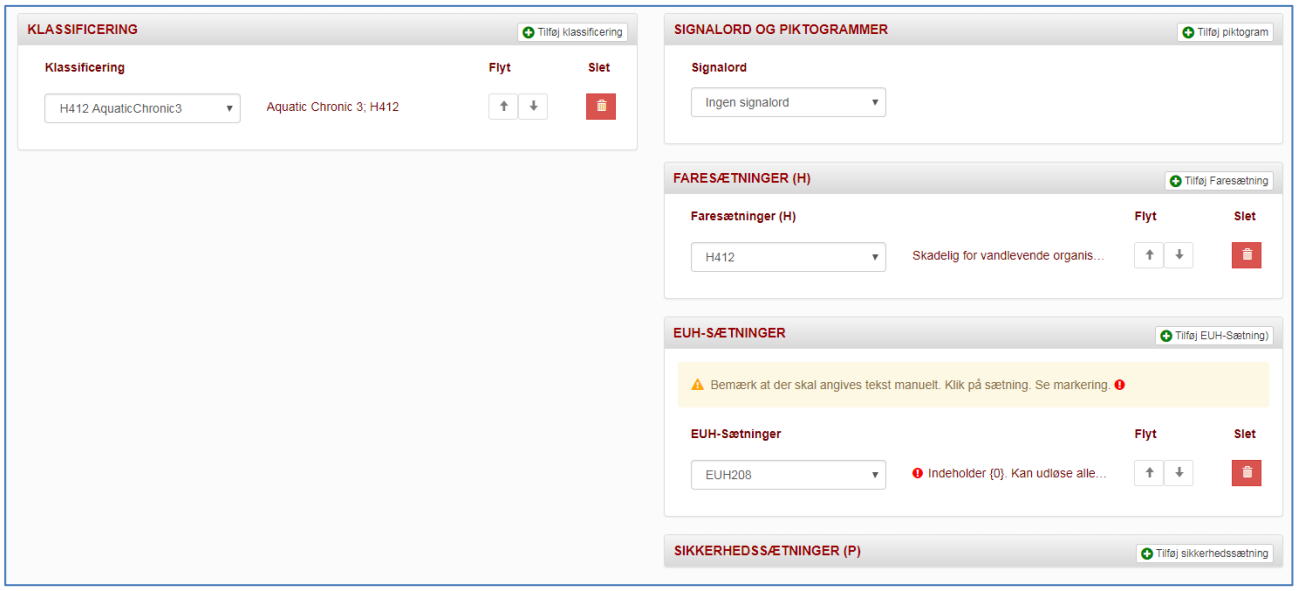
MIXTURE

Total volume for mixture	23,525 ml
Total weight for mixture	23,725 g
Total w/w % for the mixture	100 %

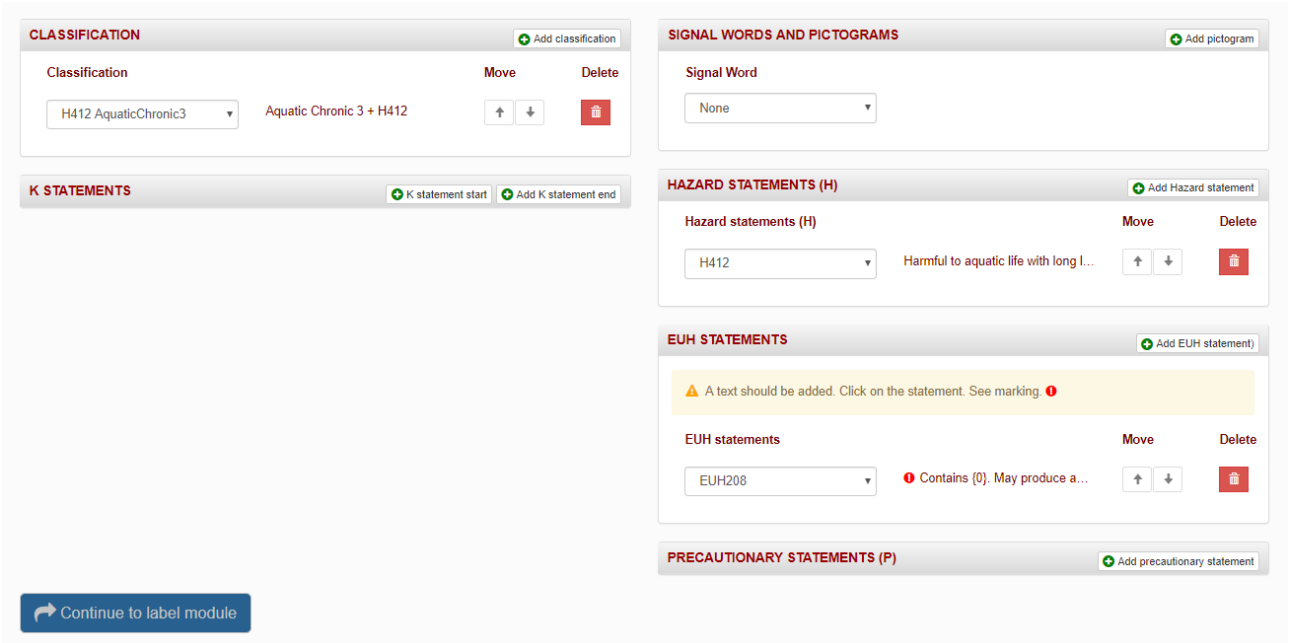
COMPONENTS IN THE MIXTURE

Chemical : Water	Volume	21,3 ml
	Weight	21,3 g
	w/w %	89,779 %
Chemical : Tween 20	Volume	2 ml
	Weight	2,2 g
	w/w %	9,273 %
Chemical : 5-Chloro-2-methyl-2H-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)	Volume	0,075 ml
	Weight	0,075 g
	w/w %	0,316 %
Chemical : Modified Alkylcarboxylate	Volume	0,15 ml
	Weight	0,15 g
	w/w %	0,632 %

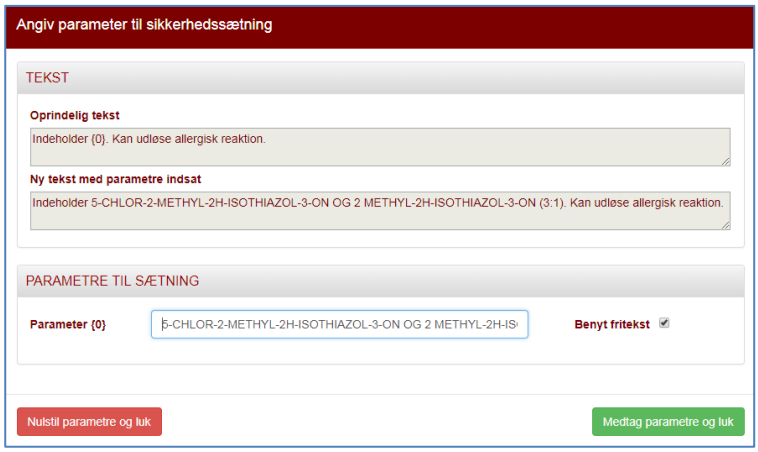
Close message box



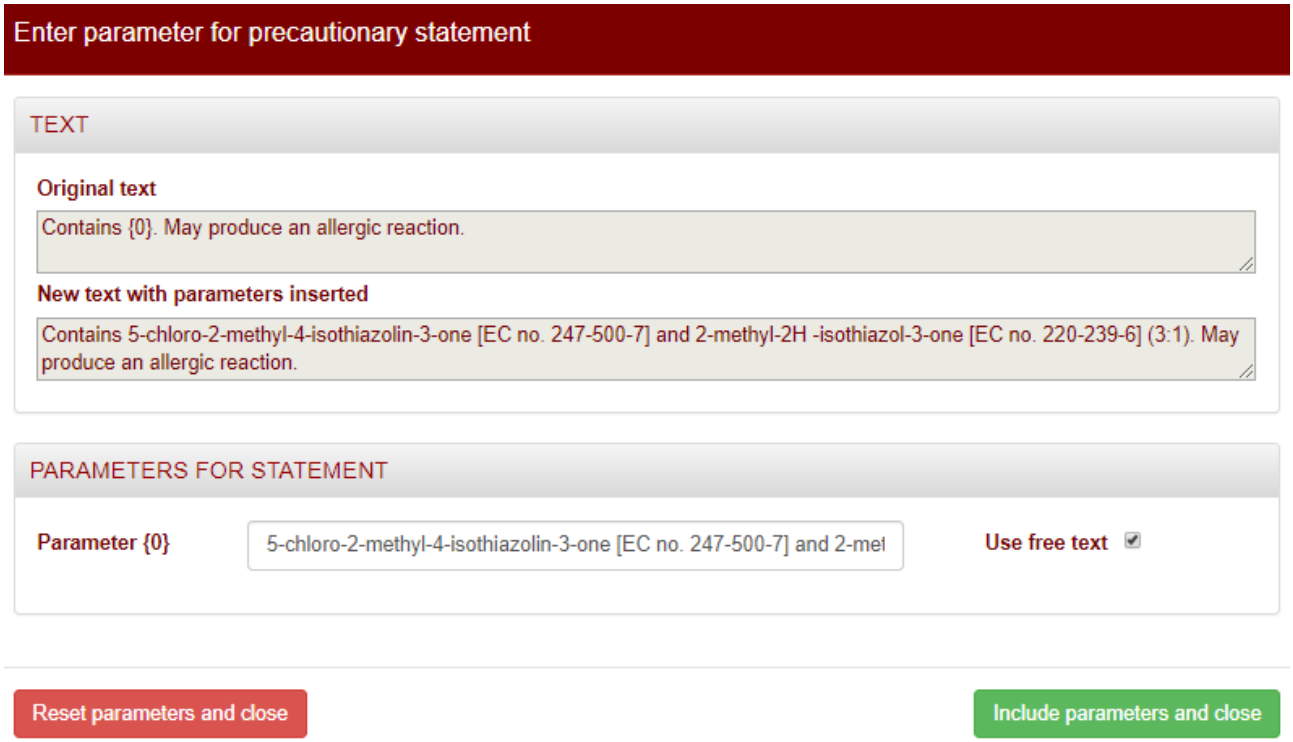
FIGUR 8-19: RESULTAT FOR BEREGNINGEN I EKSEMPLET



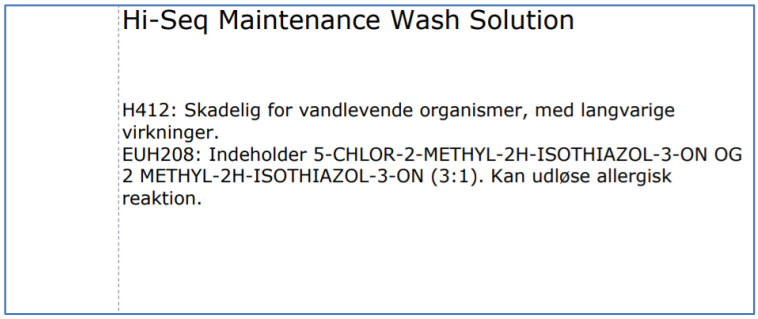
Når beregningen er lavet vil der næsten altid være nogle sætninger med et rødt udråbstegn. Disse sætninger har muligheden for at vælge forskellige parametre eller indsætte en fritekst. I dette eksempel er det EUH208, der skal oplyse om hvilke(t) allergifremkaldende stof blandingen indeholder. Her er det nødvendigt at gå tilbage til blandingen og finde det stof, der er mærket H317 Skin Sens 1. Stoffets navn sættes ind i sætningen ved at klikke på udråbstegnet, sætte flueben i ”fritekst”, kopiere navnet ind og klikke med den grønne ”Medtag og luk”:



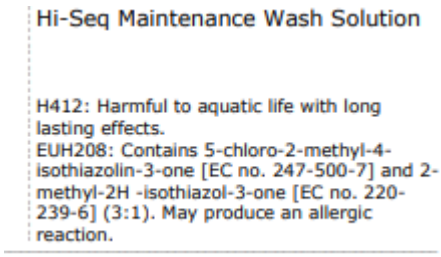
FIGUR 8-20: DET MULIGT ALLERGIFREMKALDENDE STOF SKRIVES IND SOM FRITEKST.



Når redigeringen af resultatsiden er afsluttet og der er klikket på ”Opret”, kan stoffet søges frem i ”Søg kemikaliefakta” og etiketten kan udskrives:



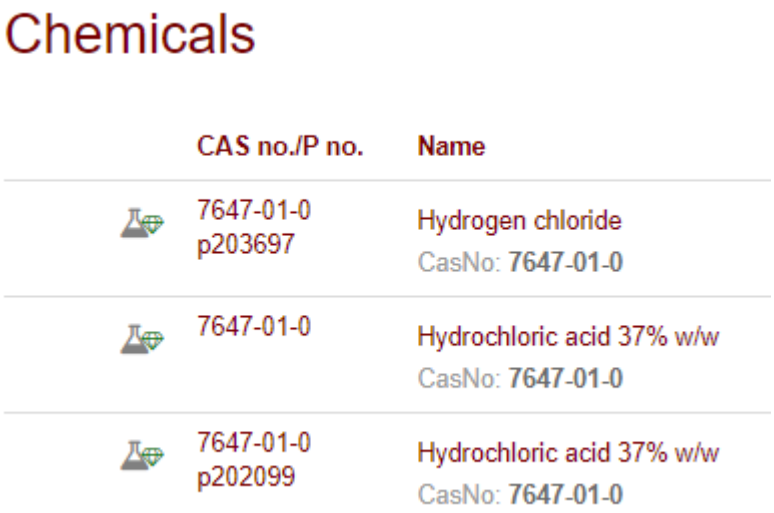
FIGUR 8-21: ETIKET FOR BLANDINGEN I EKSEMPLET



8.6 VANDIGE OPLØSNINGER AF GASSER SOM INDHOLDSSTOFFER

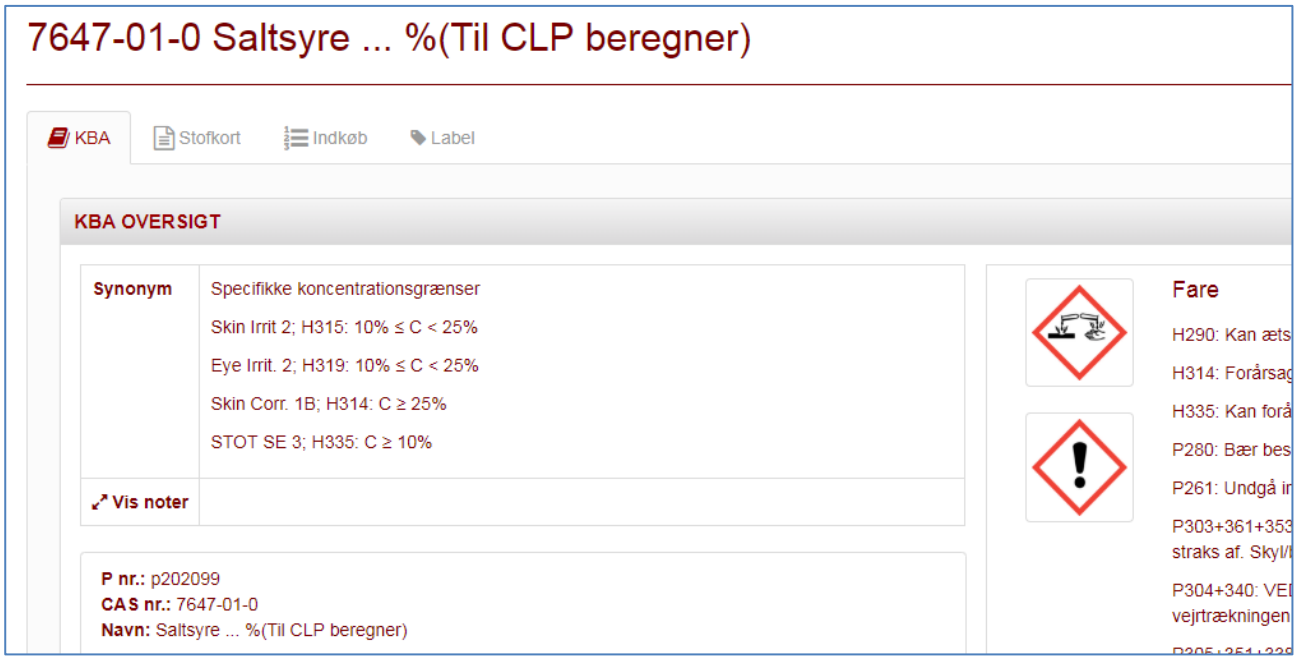
Stoffer som saltsyre, salpetersyre, ammoniumhydroxid og formalin er gasser, der er opløst i vand. Det udgør en særlig gruppe af stoffer og en del af dem findes i Kemibrug både som gassen og som en blanding, der er tænkt til brug for CLP beregning:

FIGUR 8-22: VÆLG (TIL CLP BEREGNER), HVIS STOFFET INDGÅR SOM EN VANDIG OPLØSNING

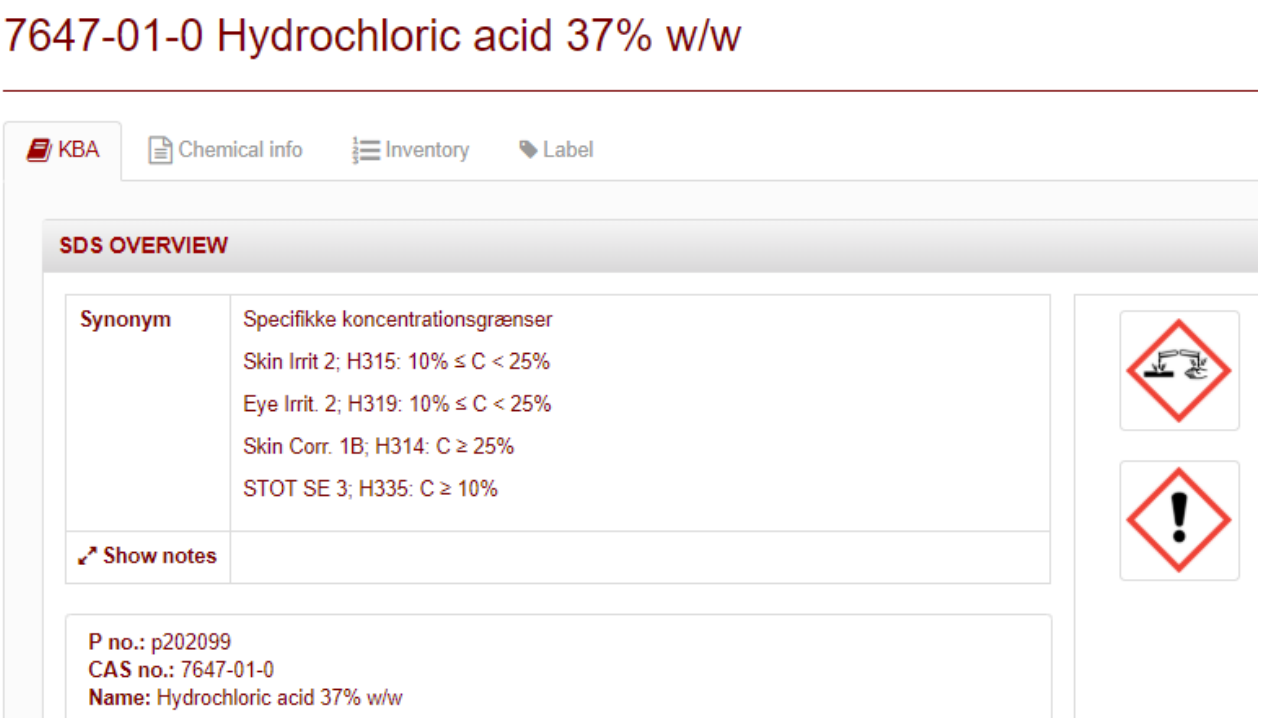


De rene gasser, f.eks. Hydrogenchlorid, vil typisk være mærket med gas under tryk og de rigtige klassificeringer vil ikke findes, hvis man fortynder gassen i vand i CLP beregneren. Desuden har mange af de vandige opløsninger en specifik koncentration grænse (se AFSNIT 8.2).

Hvis man ser på KBA'en for Saltsyre ...% (Til CLP beregning), vil den ligne KBA'en for Saltsyre 37%, men de specifikke koncentrationsgrænser er skrevet ind i stedet for synonymerne:



FIGUR 8-23: KBA FOR DEN SALTSYRE, DER VÆLGES VED VANDIGE OPLØSNINGER AF SALTSYRE.



Når man skal regne på en fortynding af saltsyre, vælges denne saltsyre og man skriver hvor meget saltsyre, der er i den færdige blanding.

Det vil sige, at en 4 M saltsyre beregnes som 4 mol ”Saltsyre …%” i 1.000 mL vand.

10 % (w/w) HCl beregnes som 10 g ”Saltsyre …%” sammen med 90 g vand.

8.7 CLP CALCULATION

On its way

9. LABEL

9.1 LABELS FOR CHEMICALS WITH SAFETY DATA SHEETS

When you find chemical information by searching for a chemical, four tabs are displayed. The last one is 'Label'.

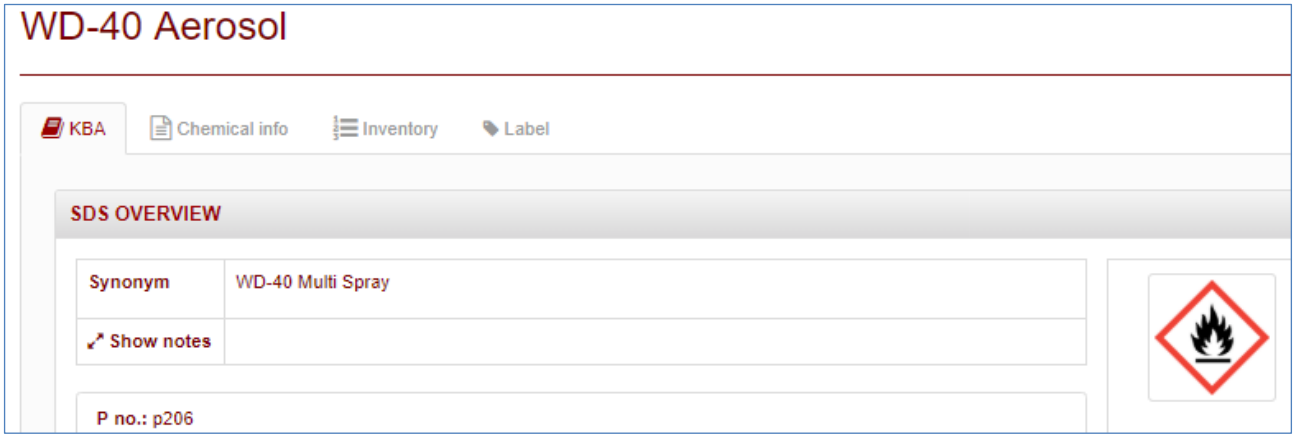


FIGURE 9-1: SELECT THE 'LABEL' TAB TO OPEN THE LABEL MODULE

If you click on the 'Label' tab, the label module opens, from where you can edit or print your label.

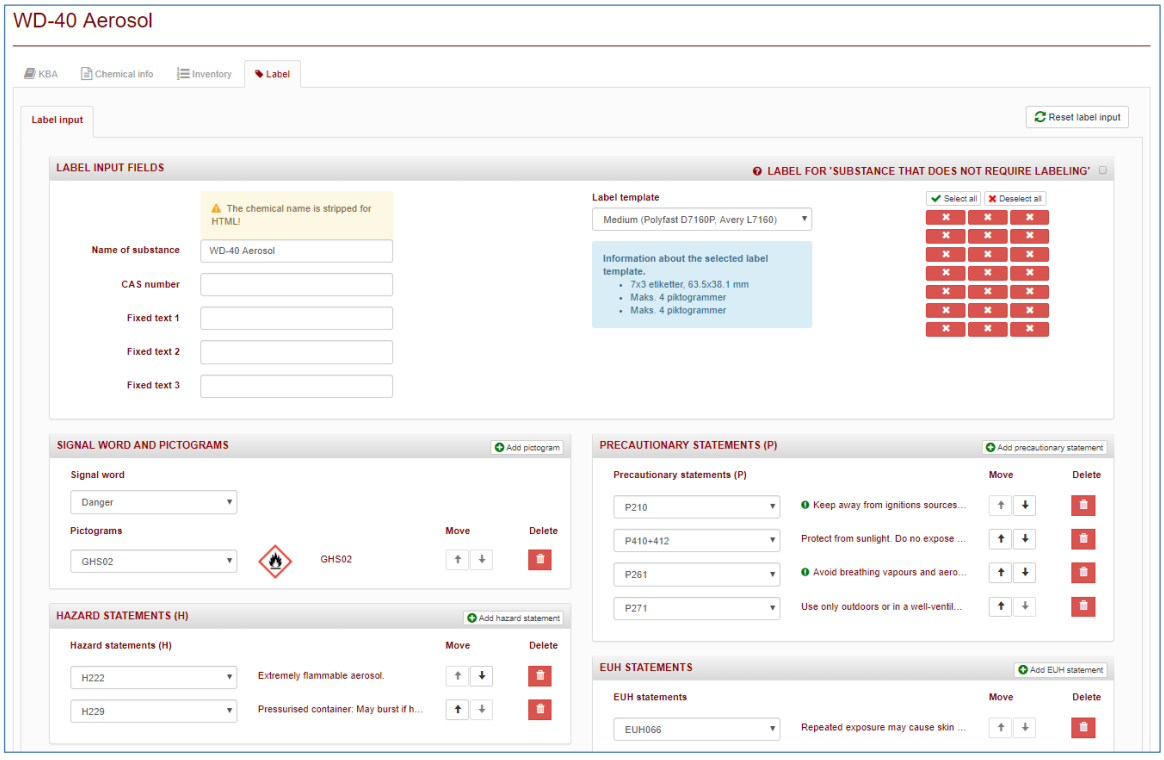


FIGURE 9-2: SCREEN FOR EDITING AND PRINTING LABELS

9.2 Label input Fields

On the top left there are fields for name, CAS no., and fixed text 1, 2, and 3. There is a standard warning above the name field indicating that subscripts (such as H_2O) and special characters (such as ™) cannot be used, see Figur 9-3

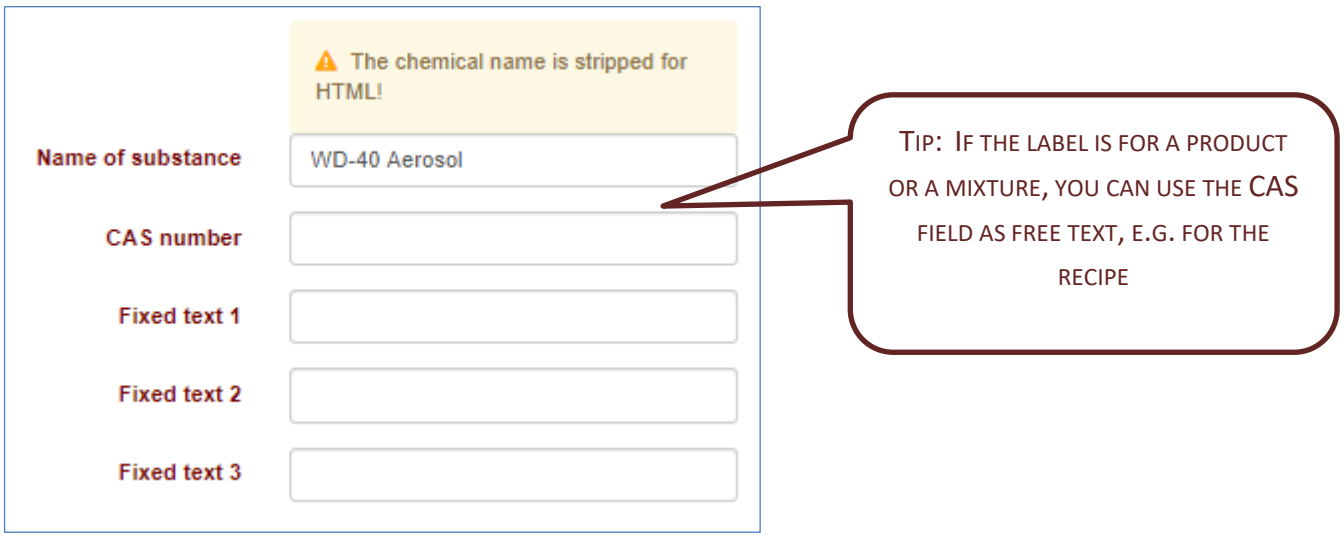


Figure 9-3: Label input fields. The chemical name and CAS number are at the top, and the fixed text underneath.

Figur 9-4 shows how the five fields will be placed on the final label.

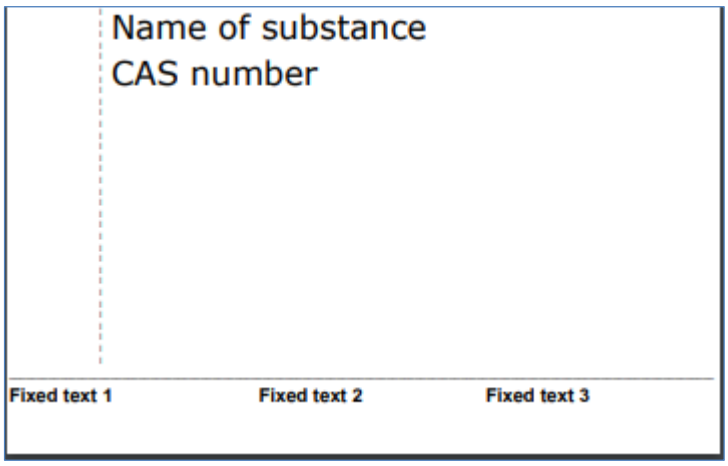


Figure 9-4: This example shows where the various fields are placed on the label.

All fields can be edited, and you can even change the name on the label. The CAS number field is intended for the CAS number, but if you have a product or a mixture you may enter the recipe here.

Fixed text 1, 2, and 3 are free text fields that typically contain information about the office, owner of the chemical, date, etc.

9.3 Label template

A diagram of the label sheet you are about to print on is shown on the right. You can choose from three different label sizes, all of which fit on an A4 sheet. The three sizes are:

63.5 x 38.1 mm (7x3 on an A4 sheet)

99.1 x 67.7 mm (4x2 on an A4 sheet)

210 x 148 mm (2 on an A4 sheet)

Based on the sizes in Kemibrug, the name and number of the label type that matches is shown.

Before you begin to print, select the number of labels on the sheet you want to print on. You can choose all, or you can choose exactly the labels you want. The labels will be shown in green on the screen when they are selected.

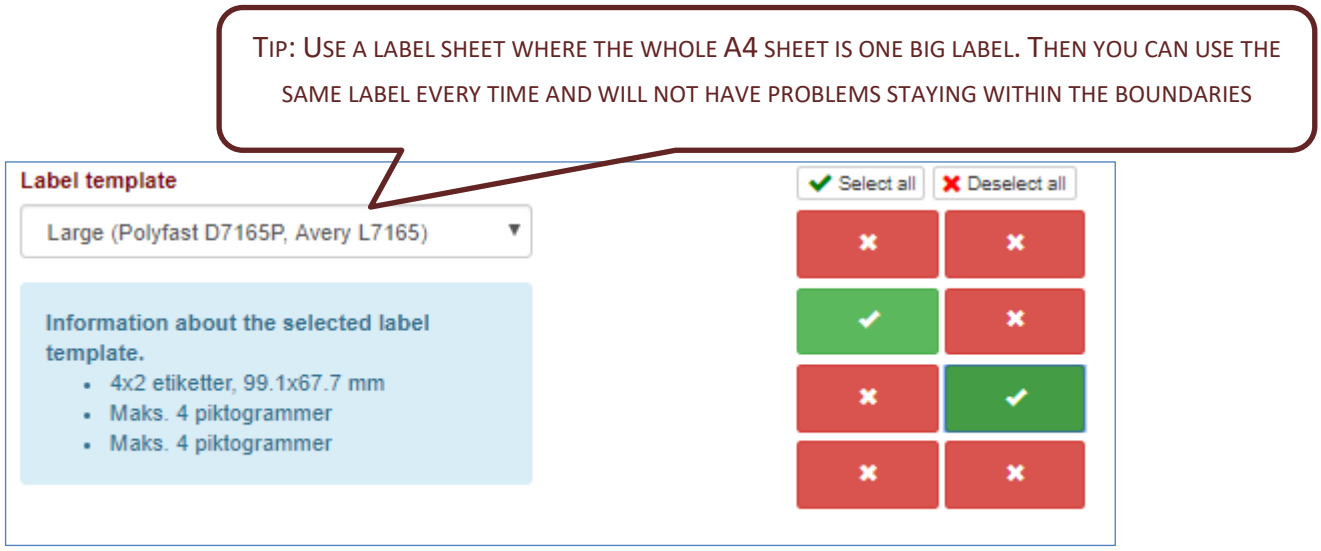


Figure 9-5: Choose the label size and which labels on the A4 sheet are to be printed on.

9.4 Hazard labels

The lower part of the screen contains signal words, pictograms, hazard statements, precautionary statements, etc. (see Figur 9-6). You can edit in all fields and add or remove statements. This must of course be done with care.

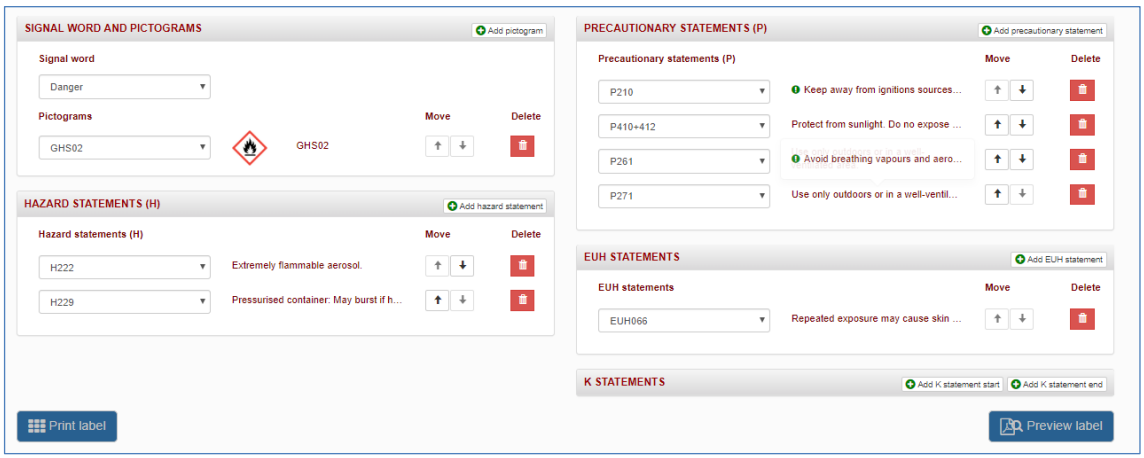


Figure 9-6: Window for editing signal words, pictograms, hazard statements, and precautionary statements.

9.5 Print label

To see a preview of the label, click on 'Preview label'. If you are satisfied, close the preview window and click on 'Print label' to create a PDF file that you can print out on the label.

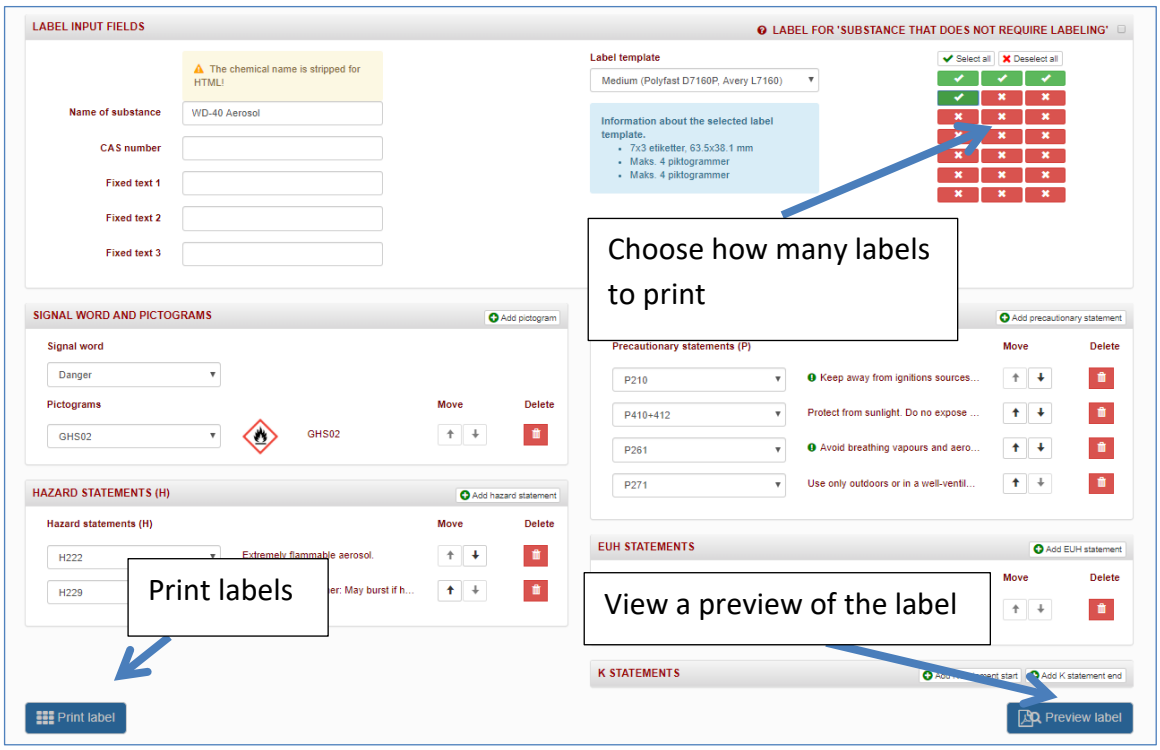


Figure 9-7: Labels window. To print the labels, click on the 'Print label' button

If you are an administrator, you will be able to see a menu item called 'Organization administration'. When you click on this, the following window is displayed:

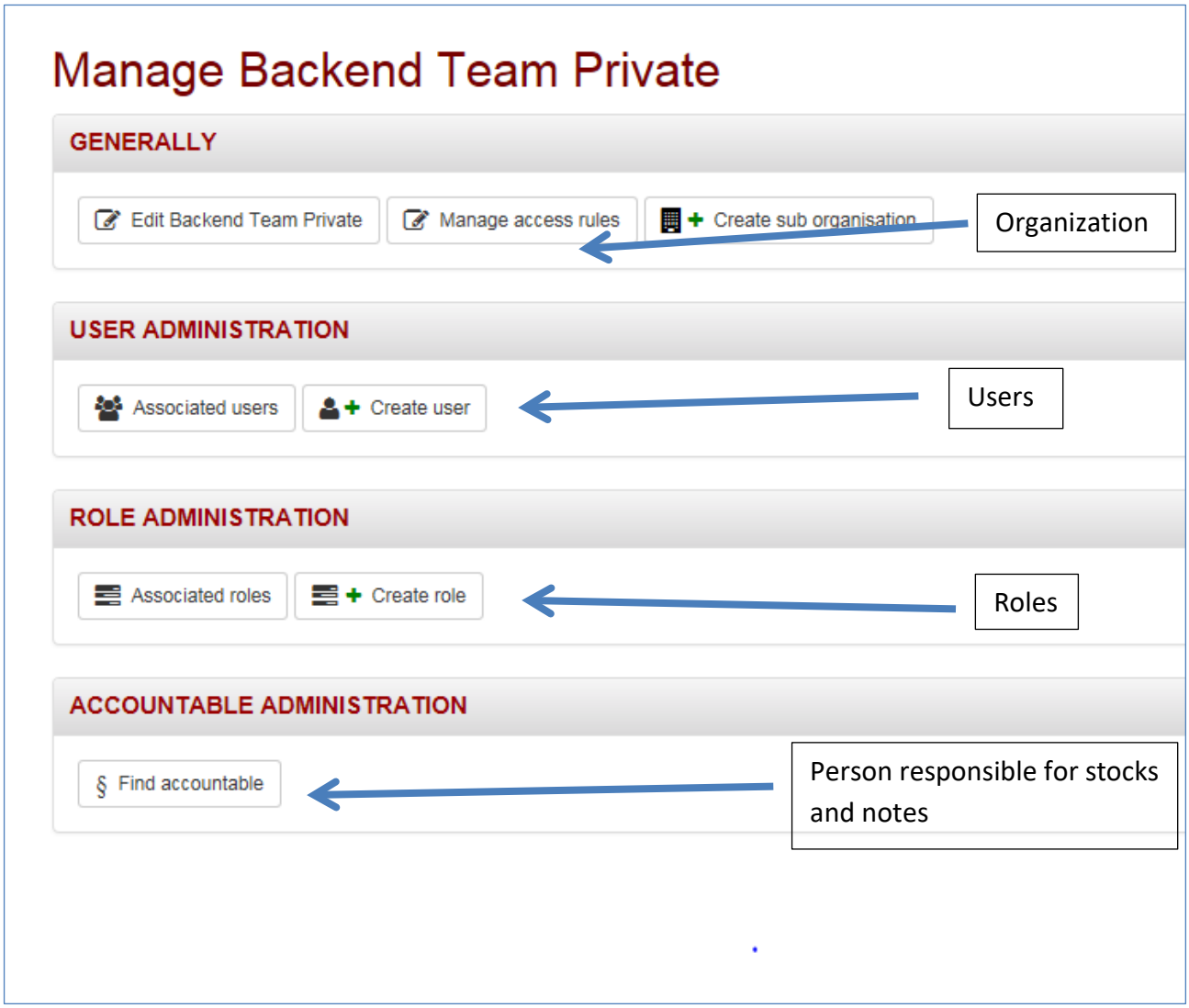


FIGURE 10-1: WINDOW FOR MANAGING USERS IN THE ORGANIZATION.

From this window, you can manage whether there should be more offices in your organization that you can create and/or delete, or manage responsibilities for the linked users. You can also grant permission for users from other organizations to log in, even if they are not set up as users in the organization you are managing. You can create special roles for your users, and you can move chemical responsibilities from one user to another.

10.1 ORGANIZATION

When you click on 'Organization administration', you must choose which organization you want to manage. Usually there is only one (see FIGUR 10-2)

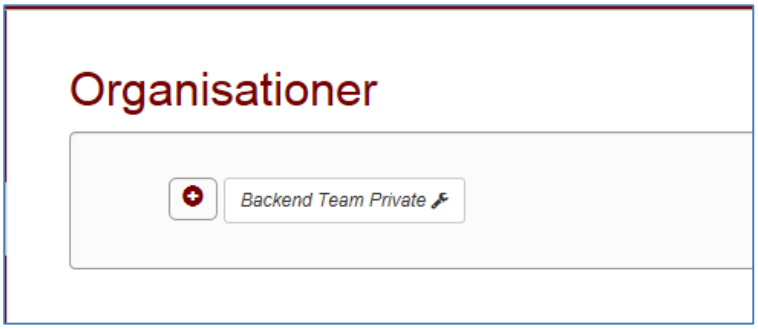


FIGURE 10-2: OVERVIEW OF THE ORGANIZATION.

Click on the plus to view any sub-organizations (see FIGUR 10-3)

FIGURE 10-3: ORGANIZATION AND SUB-ORGANIZATION. FROM HERE YOU CAN SELECT THE ORGANIZATION THAT YOU WANT TO MANAGE.

The two organizations function separately, and users in 'Kemibrug øvelser' can only see chemicals that have been created in 'Kemibrug øvelser'. If you are registered as a user in 'Backend Team Private', you can see the chemicals in both 'Backend Team Private' and in 'Kemibrug øvelser'. As a member of 'Backend Team Private', you can register new chemical stocks in 'Kemibrug øvelser', but only users in 'Backend Team Private' will be able to see them.

10.2 CREATE NEW USER

The local administrator can create new users in the system. Click on '+Create user' and this screen will be displayed (FIGUR 10-4):

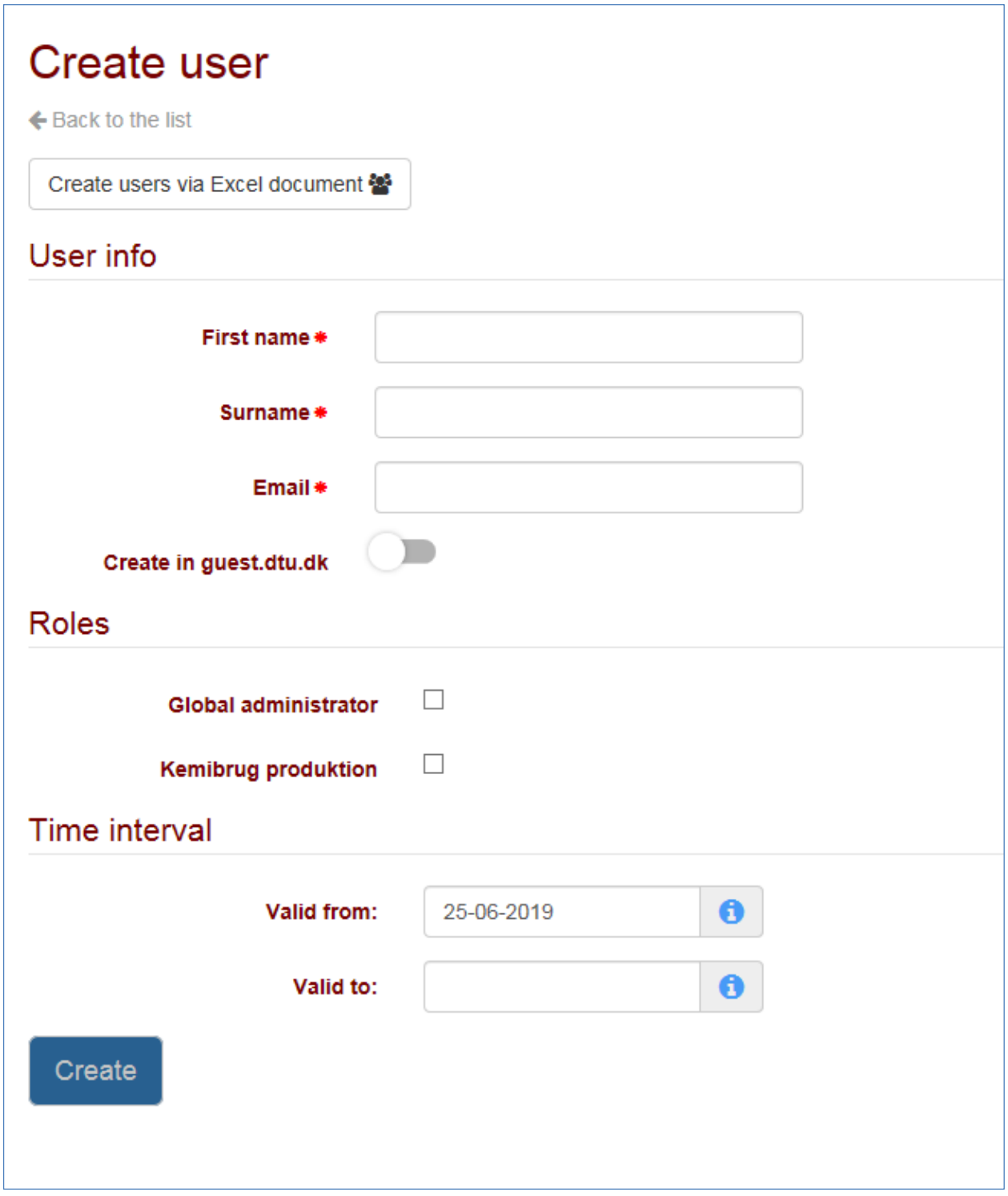


FIGURE 10-4: SCREEN FOR CREATING NEW USERS.

Enter the first name, surname, email, and role. You can set a 'Valid to:' date. When that date arrives, the user will be made inactive and will be unable to log in anymore. If the user is responsible for stocks or notes, these will still be linked to the user and must be moved manually (see section 10.5).

It is also possible to create multiple users at once by importing them from a spreadsheet. If you click on 'Create users via Excel document', the following screen is displayed (FIGUR 10-5):

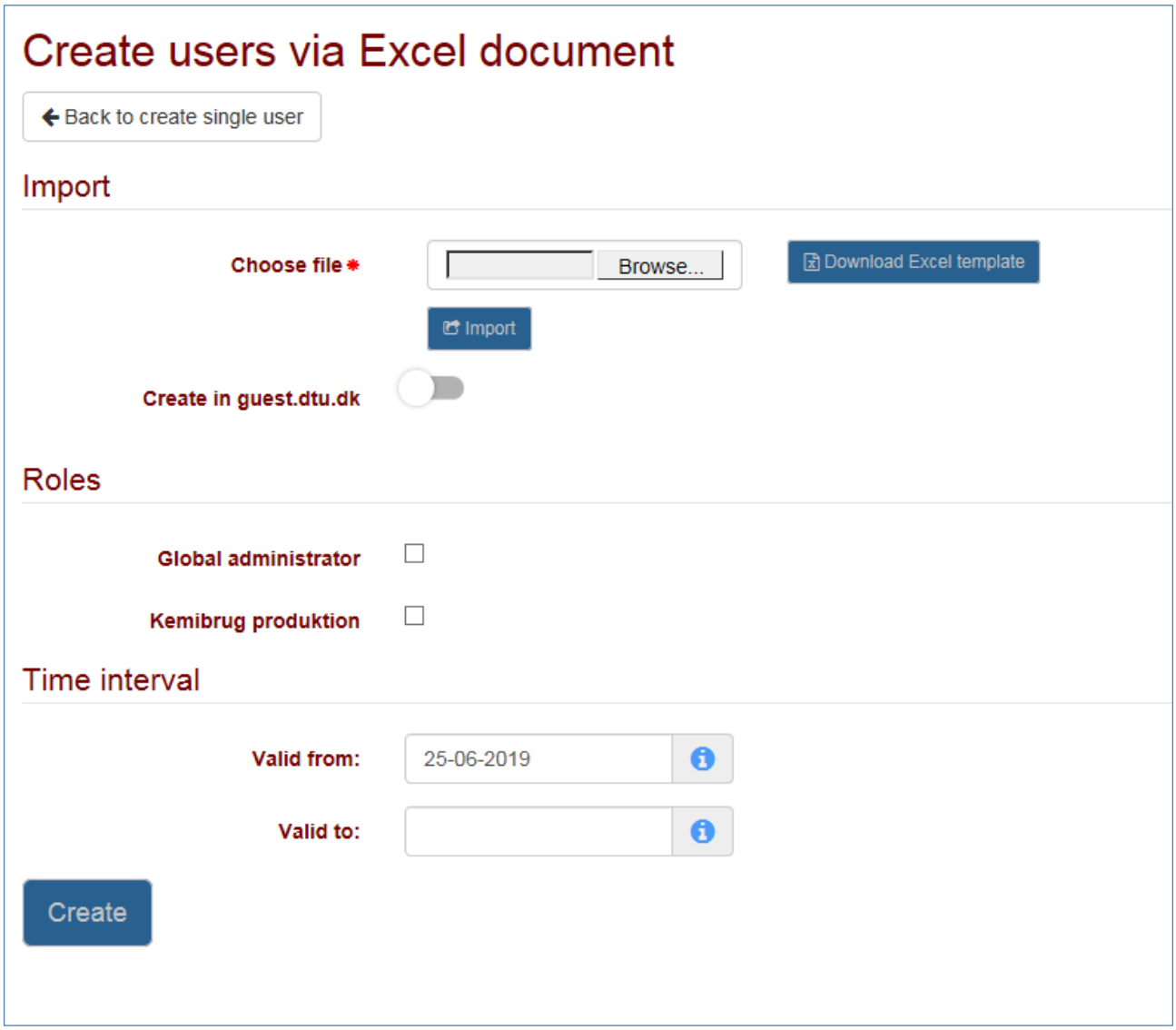


FIGURE 10-5: SCREEN FOR CREATING MULTIPLE USERS IMPORTED FROM AN EXCEL FILE.

Click on 'Download Excel template' to download this template, and enter the first name, last name, and email for each user:

	A	B	C
1	First name	Last name	E-Mail
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

FIGURE 10-6: TEMPLATE FOR CREATING MULTIPLE USERS AT ONCE.

Once the names and email addresses have been entered, save the file and click on 'Import' to read the file into Kemibrug. Once the file has been imported, select the role to be assigned to all the people in the file, and a 'Valid to:' date may be set. This method can be useful for creating user accounts for students, as they automatically become inactive when the expiry date is reached.

Please note that it is not possible to assign different roles to people in the same file. It may be necessary to have a user file and an editor file, for example.

If you have received a list containing full names and email addresses, you can split the full names into first and last names in Excel. If the full name is in **Cell A1**, the first name can be obtained using this formula:

=LEFT(**A1**;FIND(" ";**A1**))

And the last name can be found using the formula:

=RIGHT(**A1**;(LENGTH(**A1**)-FIND(" ";**A1**)))

The results of this split should be copied into the spreadsheet in FIGUR 10-6.

10.3 USER ACCESS

Kemibrug has various ways that access can be granted.

10.3.1 ACCESS FOR DTU USERS

Users created with an email address that ends in 'dtu.dk' have access through ADFS, and will encounter a login screen where they simply enter their DTU code and the usual password. They will then be offered to log into the organizations for which they have privileges.

10.3.2 ACCESS FOR WAYF MEMBERS

WAYF stands for 'Where Are You From' and organizations that are members of this group can log in directly from their own organization, because WAYF 'knows' where they are from and that they have privileges to use Kemibrug. If you are unsure whether your organization is a member of WAYF, you can look this up at wayf.dk

The privileges to use WAYF are set in Kemibrug under the roles, see section 10.6.2

10.3.3 ACCESS FOR GUEST.DTU

Users outside DTU or a WAYF organization must be set up as in guest.dtu in order to log in via DTU.

Users must be set up in guest.dtu at the same time as their user account is created. This is done by activating the 'Create in guest.dtu.dk' button (see FIGUR 10-7)

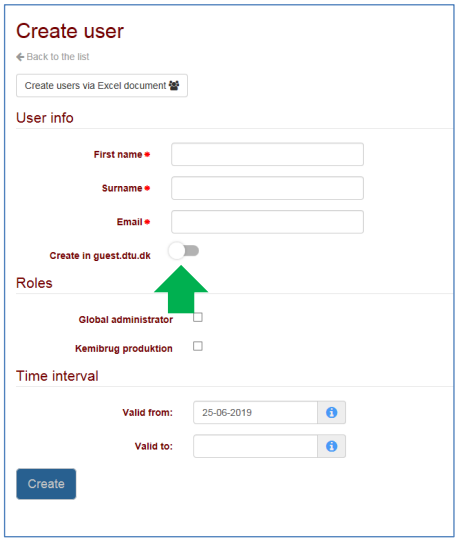


FIGURE 10-7: REMEMBER TO ACTIVATE THE 'CREATE IN GUEST.DTU.DK' BUTTON IF THE USER IS NOT A MEMBER OF A WAYF ORGANIZATION

10.3.4 ACCESS RULES

In addition to setting up the user, new domains (what comes after @) must also be given permission to access Kemibrug. This is also done in 'Organization administration', under the 'Manage access rules' menu (see FIGUR 10-1)

Click on 'Manage access rules' to see what domains have already been granted access. You can also add more or delete existing ones (see FIGUR 10-8)

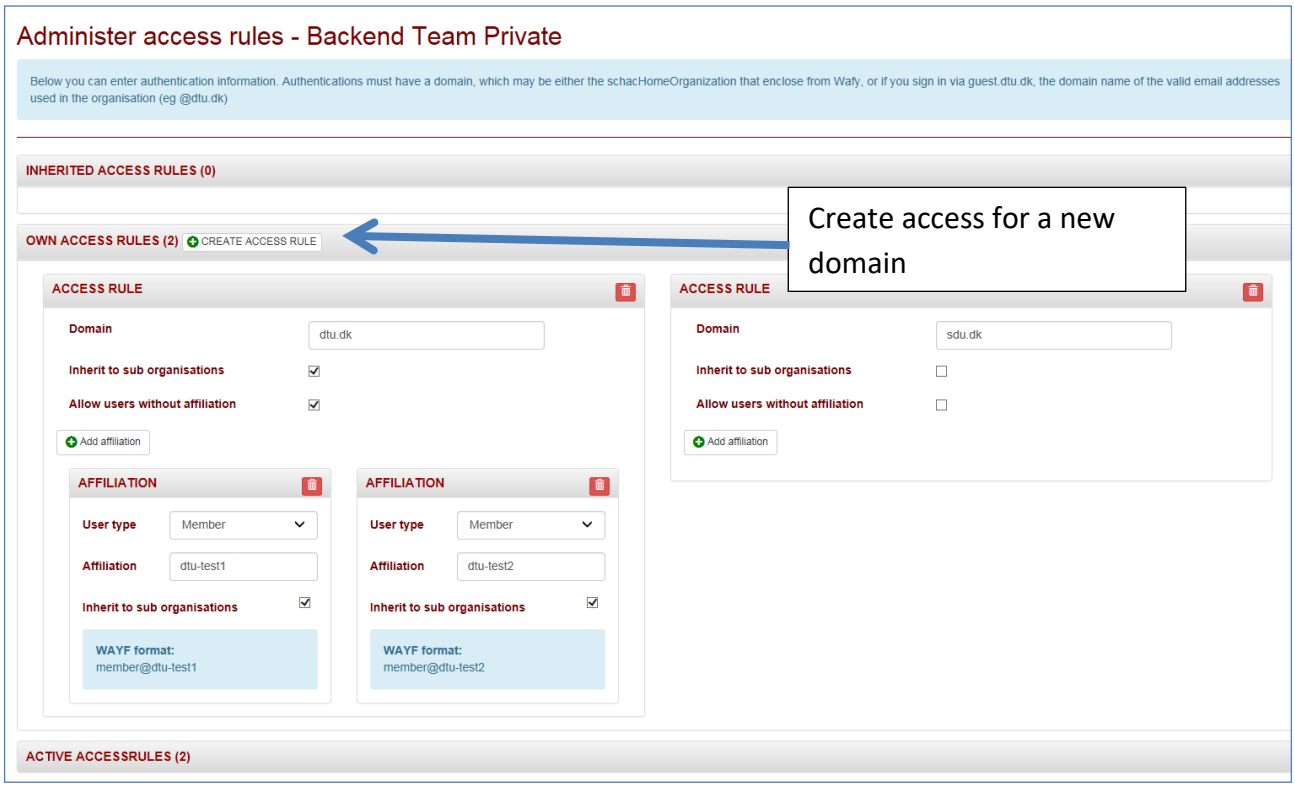


FIGURE 10-8: LIST OF DOMAINS THAT ARE ALLOWED ACCESS IN THIS ORGANIZATION.

When granting access to a WAYF organization, type the domain name without @. For example, enter 'dtu.dk' to grant access to anyone with a dtu.dk email address. You do not have to set up adm.dtu.dk to give them access—this is automatically covered by the dtu.dk domain.

For users that log in via guest.dtu.dk, the domain must be entered including the '@'. For example, enter '@dr.dk' to allow a user from DR access.

If you tick the 'Propagate to sub-organizations' checkbox, you grant access to any organization registered under the organization you are working in.

If you tick the ‘Allow users without affiliation’ checkbox, you grant access to anyone with the given domain, as long as there is a role that allows login without affiliation (**see section**). Be careful not to grant this permission to a domain like ‘@gmail.com’

10.4 EDITING USERS

You can change the name and role of linked users in the ‘User management’ menu:

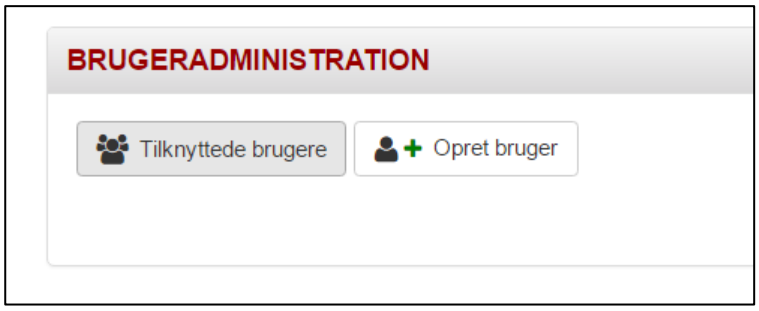


FIGURE 10-9: EDIT THE USERS BY CLICKING ON ‘LINKED USERS’.

There may be a long list of users, and this will always be sorted with the newest at the bottom. If you want to find all the editors, you can do so by pressing:

Ctrl-F

Then typing ‘editor’ in the search box. The word ‘editor’ will then be highlighted, and you can jump to the next occurrence using the arrows in the search box. You can search on name and email in the same manner (see FIGUR 10-10):

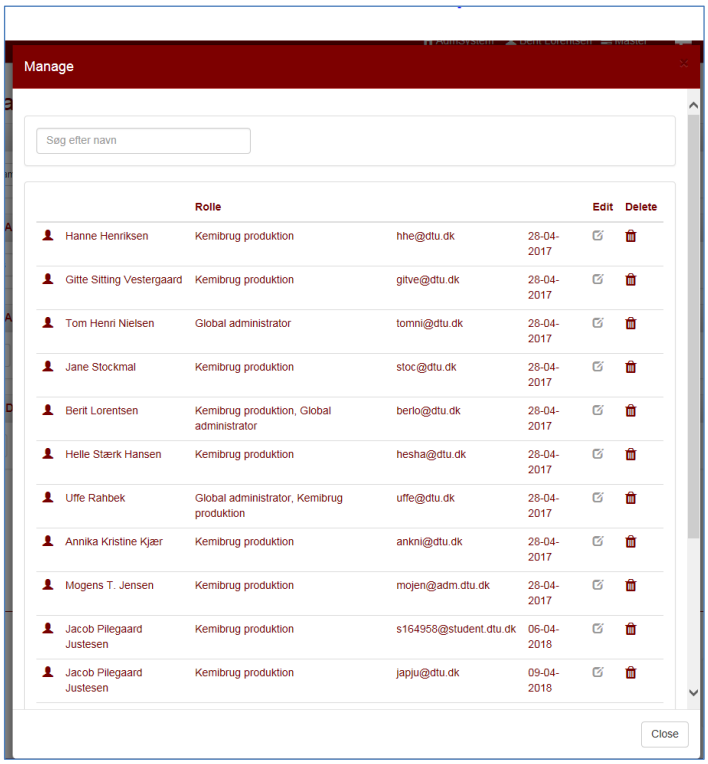


FIGURE 10-10: SEARCHING FOR USERS USING THE CTRL-F FUNCTION IN THE BROWSER.

10.5 TRANSFER CHEMICAL RESPONSIBILITY TO ANOTHER USER

The 'Organization administration' menu can also be used to transfer chemical responsibility to another user. Do this by clicking on 'Find responsible person' at the bottom of the administration page.

After you click on this, a new window will be displayed in which you can choose the person from whom you wish to remove responsibility (see FIGUR 10-11):

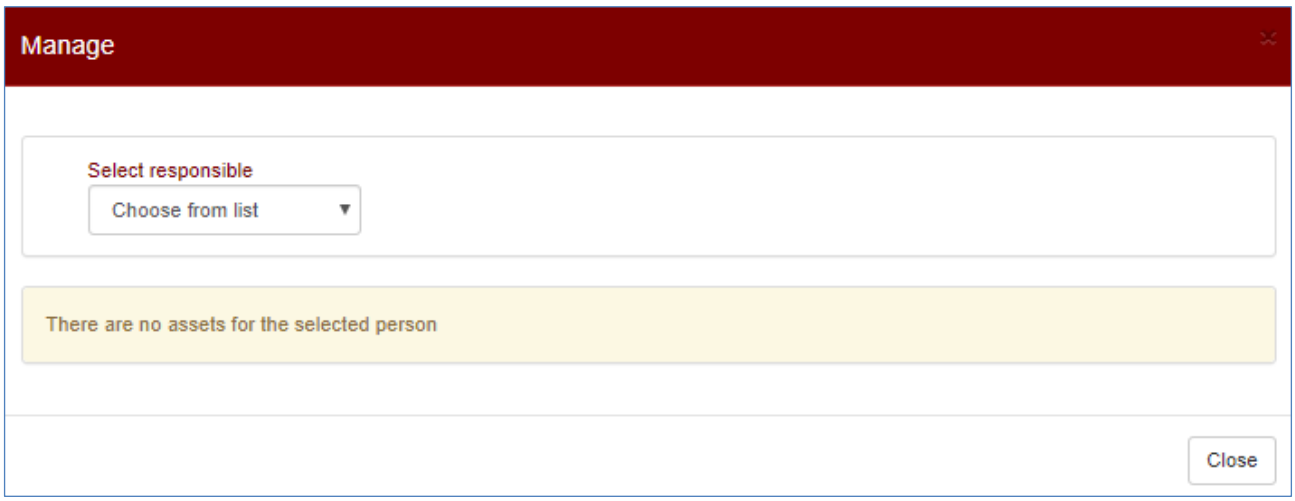


FIGURE 10-11: WINDOW FOR REPLACING THE PERSON RESPONSIBLE FOR A CHEMICAL

From the list of responsible people, choose the person responsible for the chemicals which are being transferred to another person. The list contains only the people who are actually responsible for the chemicals. When a person has been selected, a list of the chemicals they are responsible for will be displayed (see FIGUR 10-12):

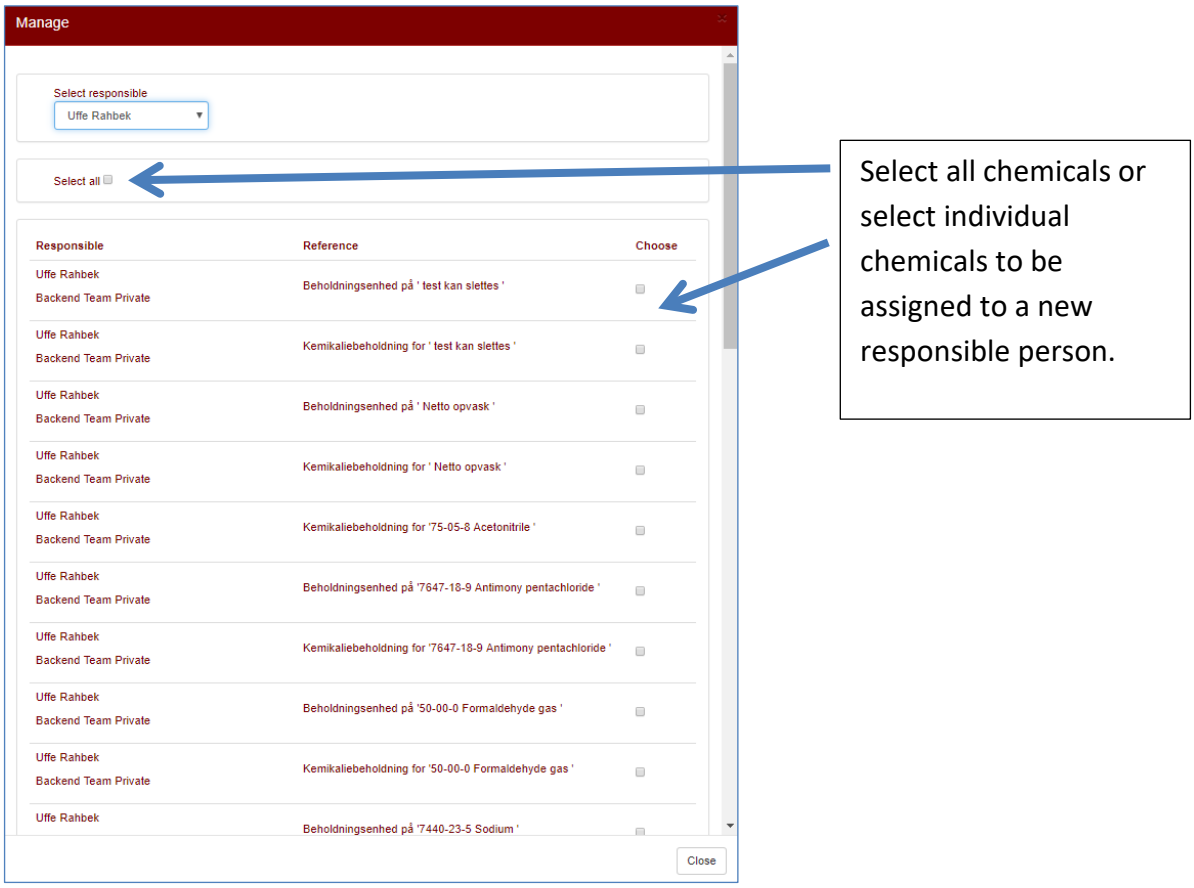


FIGURE 10-12: WINDOW FOR SELECTING THE CHEMICALS TO BE ASSIGNED TO A NEW RESPONSIBLE PERSON.

You can either choose to transfer responsibility for all chemicals, or selected chemicals.

As soon as a chemical has been selected, a new box containing the names of the other responsible people in the group will be displayed. From here, select the person who is to take over responsibility for the chemical. A confirmation pop-up will then be displayed.

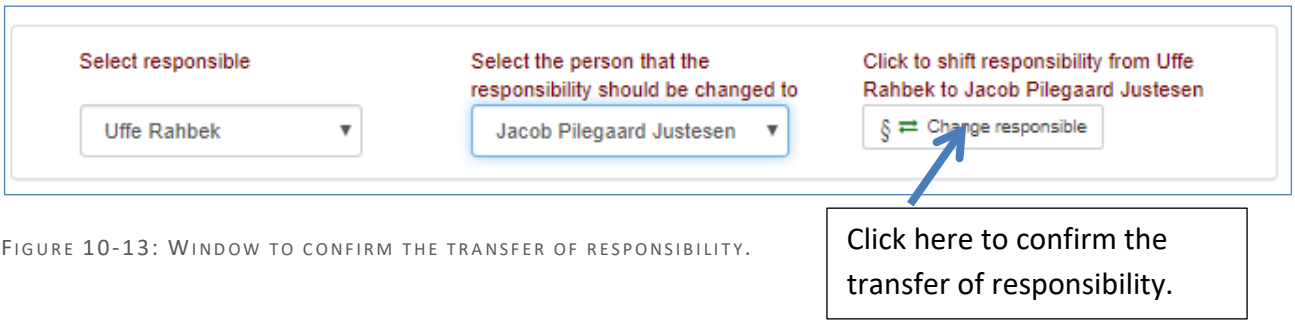


FIGURE 10-13: WINDOW TO CONFIRM THE TRANSFER OF RESPONSIBILITY.

When you click on 'Change responsible', responsibility will be transferred immediately.

10.6 ROLES IN KEMIBRUG

Roles in Kemibrug apply locally to each organization. You can choose to create the same roles for all organizations within the same superordinate organization, or you can set up individual roles within each organization.

10.6.1 RULES

The roles are structured hierarchically, such that the top-level role always has the most privileges.

If the same roles are selected throughout the hierarchy, a change in a role in a sub-organization will therefore be propagated to all organizations that have the same role.

If you create a new role for a sub-organization, that organization automatically drops out of the community with the common roles, and you must assign the existing users the new roles.

If you delete the individual roles, the common roles will again apply to the sub-organization, once the cache lists have been refreshed.

10.6.2 FUNCTIONS IN THE ROLES

When you create a new role, there are a number of ...

10.6.3 LIST OF ATTACHED ROLES

If you click on the 'Organization administration' menu item and select your organization and then 'Attached roles', a list of the roles created in the system is displayed:

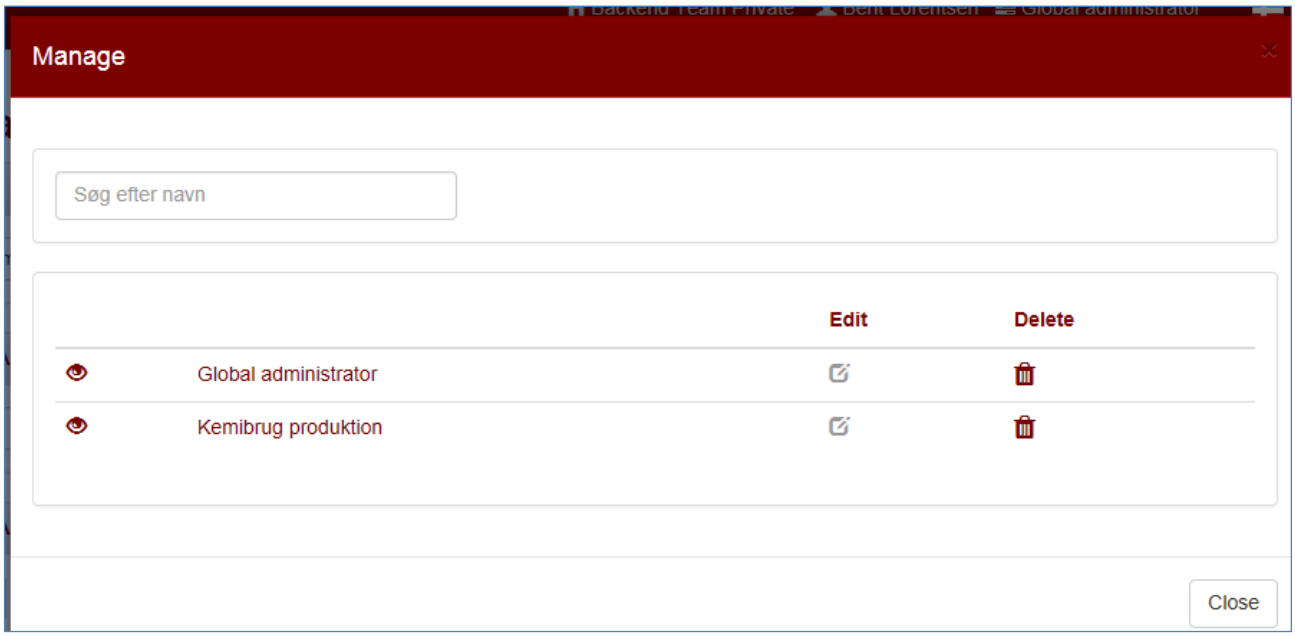


FIGURE 10-14: WINDOW LISTING THE ROLES CREATED IN THE ORGANIZATION

If you have the necessary privileges, you can click on the button under 'Edit' and see what a given role contains (see FIGUR 10-15)

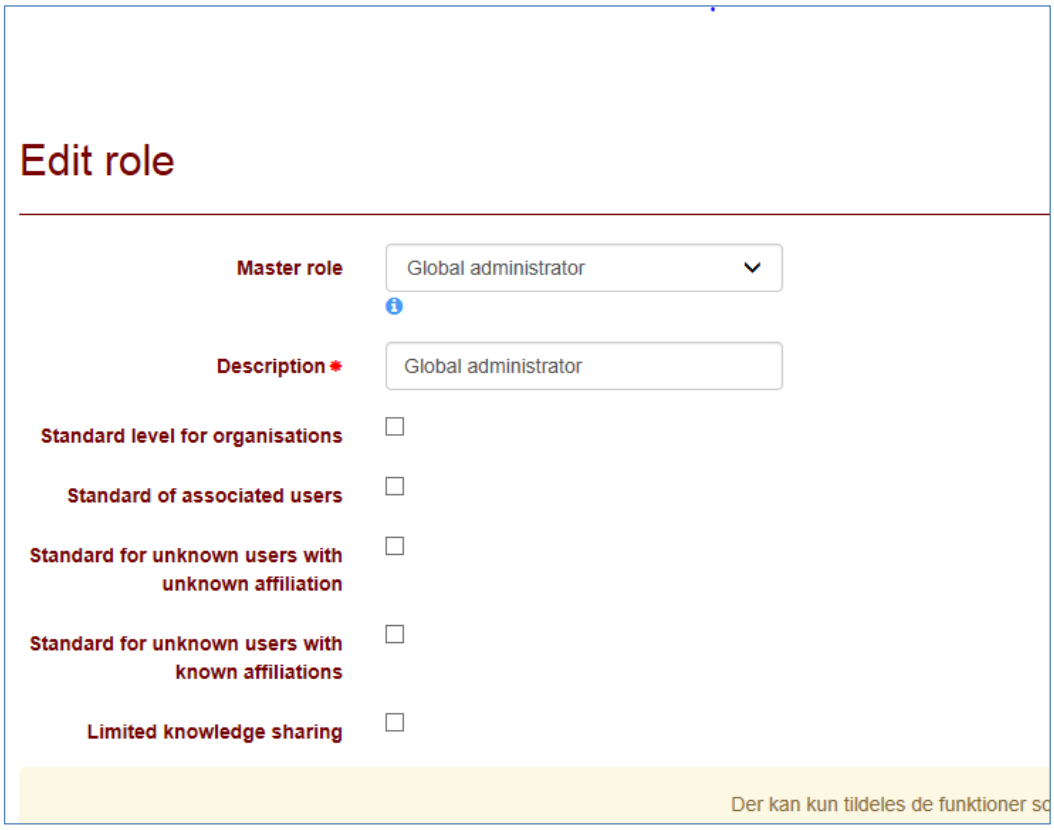


FIGURE 10-15: ROLE OVERVIEW

10.6.4 CREATING A NEW ROLE

To create a new role, click on 'Create role' (see FIGUR 10-1). A new window will open containing a blank role that grants the same privileges as the top role in the organization.

Some fields need to be filled in:

Master role: Choose one of the existing roles, and this will limit the role you are creating to not have more privileges.

Description: The name of the role. Users who log in with this role will have the name of the role displayed at the top of their screen along with their name and the organization they are working in.

Standard level for organizations: Not used

Standard of associated users: Not used

Standard for unknown users with unknown affiliation: WAYF users. If the access rules permit 'users with no affiliation', they will be assigned this role when they log in. The users thus create their own account when they log in.

Standard for unknown users with known affiliations: WAYF users. If WAYF passes on an affiliation, and this is registered in the access rules, these users will be assigned this role when they log in.

Limited knowledge sharing: Not used

The privileges are then granted in the large screen. They are quite self-explanatory and have therefore not been described further here.

11. KEMIBRUG PRODUCTION

This chapter describes how safety data sheets are produced. The chapter is divided into receiving orders and SDSs for pure substances, purchased mixtures, own mixtures, and kits. It also describes how to do a revision and how to release an SDS.

11.1 RECEIVING AND PROCESSING ORDERS

All users submit orders via the same IT system. It is users with the editor and administrator roles who can order SDSs and revisions.

When you click on the 'View SDS orders' menu item, this window is displayed:

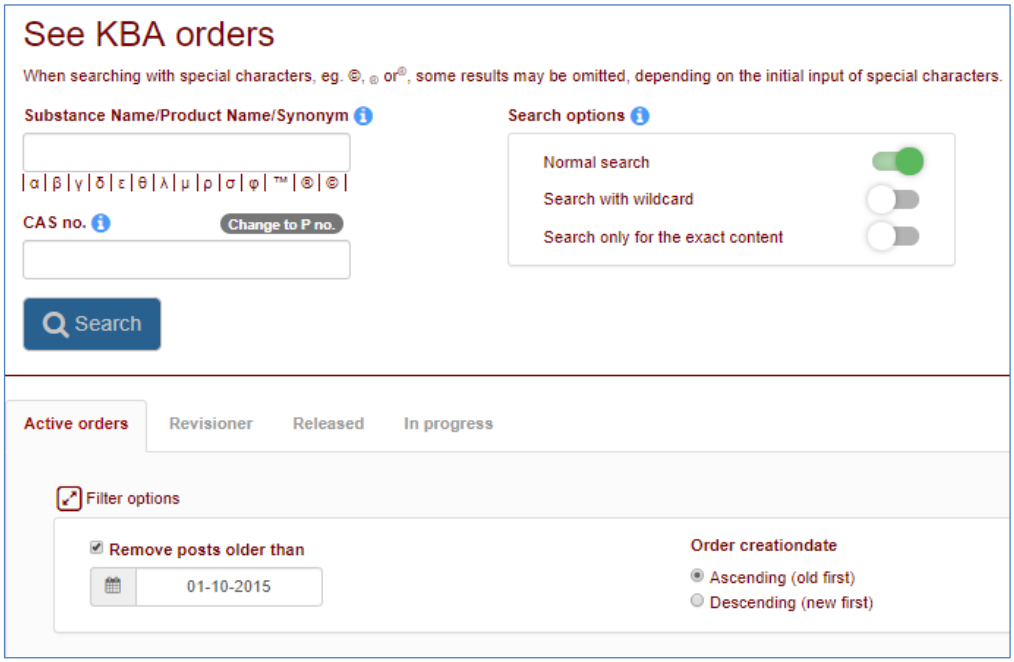


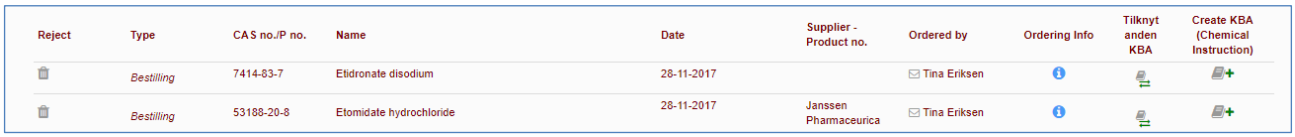
FIGURE 11-1: LIST OF SDS ORDERS. FROM THIS SCREEN YOU CAN VIEW THE 'ACTIVE ORDERS' THAT NOBODY IS YET WORKING ON, THE 'RELEASED' ORDERS THAT HAVE BEEN COMPLETED, OR THE 'IN PROGRESS' ORDERS CURRENTLY BEING WORKED ON.

If you click on one of the tabs:

- Active orders: Orders that we are not yet working on
- Revisions: Orders for revisions
- Released: Completed orders for which the SDS has been released
- In progress: Orders being worked on

Under each tab there is the option to select orders after a specific date, and to display orders in ascending or descending date order.

There is also more information about the orders under each tab. The blue info (i) circle displays user comments:



Reject	Type	CAS no./P no.	Name	Date	Supplier - Product no.	Ordered by	Ordering Info	Tilknyt anden KBA	Create KBA (Chemical Instruction)
	Bestilling	7414-83-7	Etidronate disodium	28-11-2017		Tina Eriksen			
	Bestilling	53188-20-8	Etomidate hydrochloride	28-11-2017	Janssen Pharmaceurica	Tina Eriksen			

FIGURE 11-2: LIST OF SDS BOOKINGS.

The fields shown have been copied from the orders and the names are self-explanatory. There are also various buttons for processing each order.

Tab	Button	Function
Active orders	Reject	Deletes the order and sends an email to the person who ordered it
	Link	Attaches the user's notes and stocks to an existing SDS
	Create SDS	Creates an SDS and sends an email to the person who ordered it
Released	View SDS	Opens the SDS
	Create revision	Orders an SDS revision.
	Delete SDS	Deletes the SDS and notes and sends an email to the person who ordered it
In progress	View SDS	Opens the SDS
	Edit SDS	Opens the SDS for editing
	Delete SDS	Deletes the SDS you are working on and returns the order to 'Active orders'

11.1.1 REJECT ORDER

Orders under 'Active orders' can be rejected.

The user's local notes and stocks will not be affected.

When you reject an order, a window is displayed in which you can enter a reason.

Typical reasons include:

- As agreed
- SDS is available as no. P-XXXXX
- The order already exists as XXXX

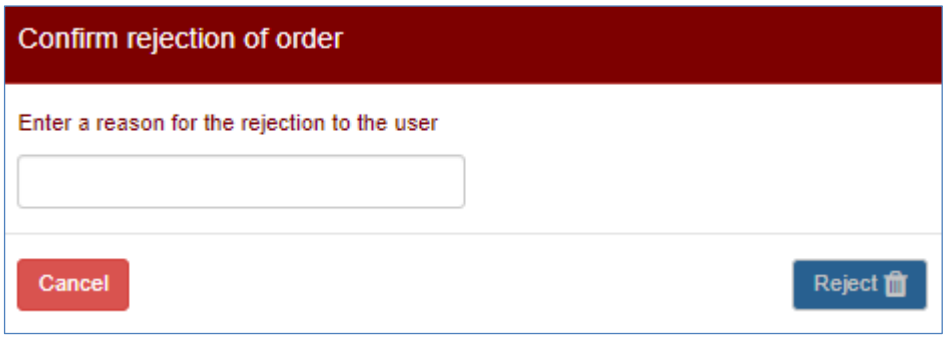
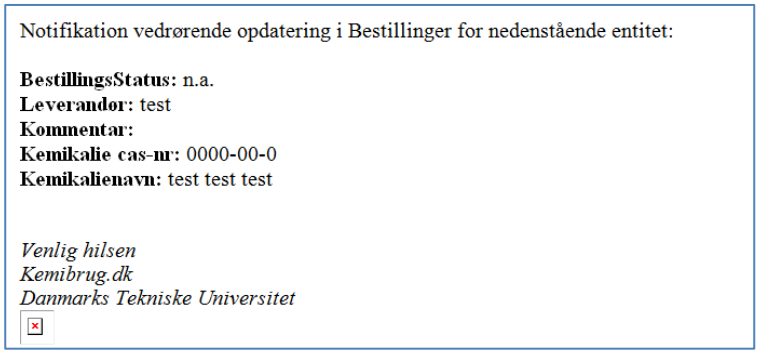


FIGURE 11-3: THIS WINDOW ALLOWS YOU TO ENTER A REASON FOR REJECTING THE ORDER.

When you click on 'Reject', the order will be deleted from the list and an email will be sent to the person who ordered it.


Notifikation vedrørende opdatering i Bestillinger for nedenstående entitet:

BestillingsStatus: n.a.
Leverandør: test
Kommentar:
Kemikalie cas-nr: 0000-00-0
Kemikalienavn: test test test

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FIGURE 11-4: THE EMAIL THAT IS SENT TO THE REQUESTOR WHEN YOU REJECT AN ORDER.

11.1.2 START AN SDS

In the list of 'Active orders', select the SDS that you would like to start working on.

We will start with the oldest orders that are more recent than October 2015. The most recent order we are not yet working on is:

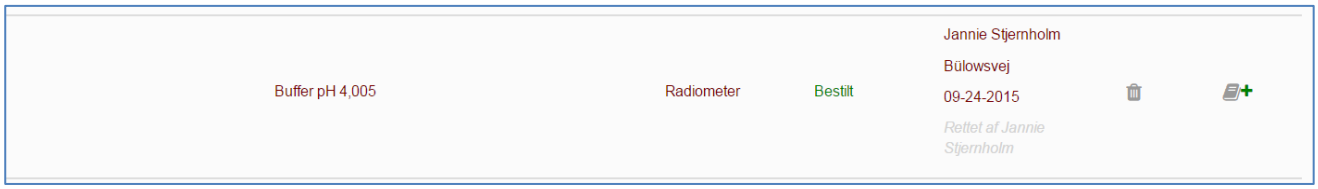


FIGURE 11-5: WE START WITH THE OLDEST ORDERS THAT ARE MORE RECENT THAN THIS ORDER.

Click on the icon under 'Create SDS' to start an SDS. You will be asked to confirm that you wish to continue:

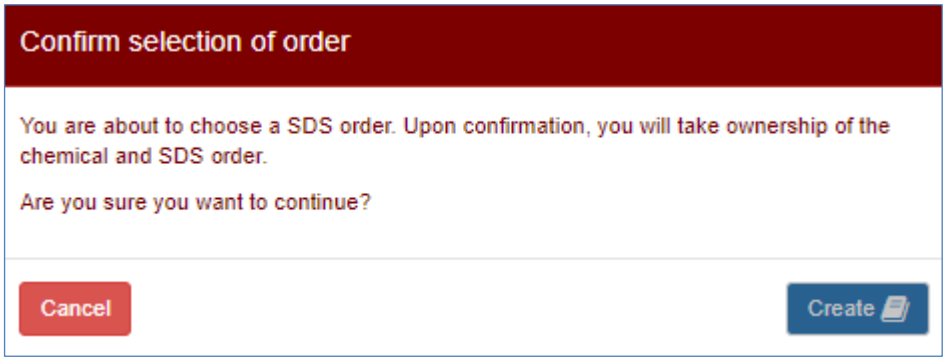


FIGURE 11-6: CONFIRM THAT YOU WANT TO START ON THE SDS FOR THIS ORDER.

When you confirm that you want to start this SDS, the requestor will receive an email from the system reporting that the status has changed from 'Ordered' to 'In progress':

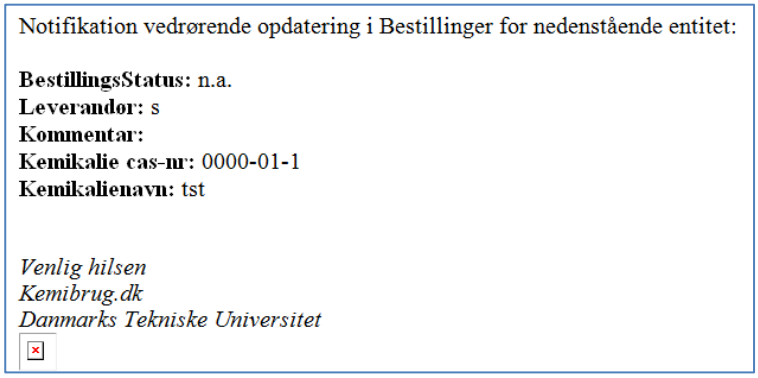


FIGURE 11-7: EMAIL TO THE REQUESTOR INFORMING THEM THAT WE HAVE STARTED PROCESSING THE ORDER.

11.1.3 DELETE AN SDS

Under 'In progress' and 'Released' it is possible to delete SDSs. This function can be used if a requestor changes their mind and no longer wants the SDS. It can also be used to delete existing SDSs in the database.

Please note that an SDS can be deleted even if **notes and stocks** are linked to it.

If you delete an SDS that has been released, these notes and stocks will also be deleted.

If you delete an 'In progress' SDS, the order will be returned to 'Active orders' and local notes and stocks will remain linked to the order.

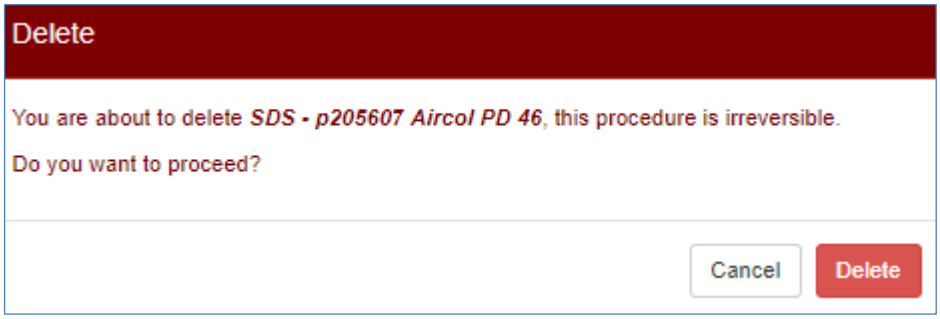
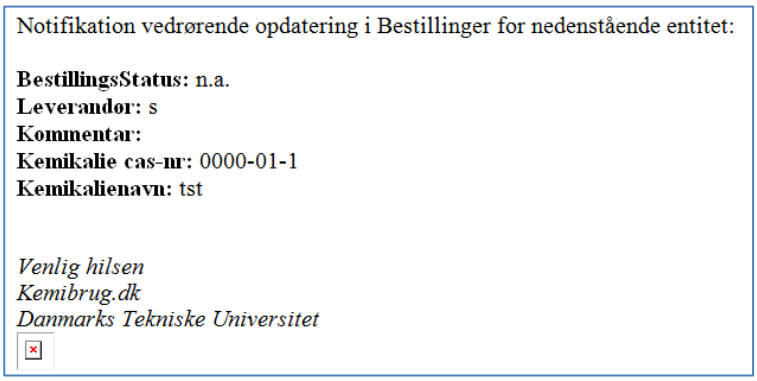


FIGURE 11-8: EMAIL NOTIFYING THE REQUESTOR THAT WE ARE DELETING AN ORDER.


Notifikation vedrørende opdatering i Bestillinger for nedenstående entitet:

BestillingsStatus: n.a.
Leverandør: s
Kommentar:
Kemikalie cas-nr: 0000-01-1
Kemikalienavn: tst

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FIGURE 11-9: EMAIL NOTIFYING THE REQUESTOR THAT WE HAVE DELETED AN ORDER.

11.1.4 ADDING AN ORDER TO AN EXISTING SDS

An order can be added to an existing SDS if an SDS has been ordered for a chemical that already has an SDS in Kemibrug. The system will then transfer local stocks and notes to the existing SDS.

Orders can be linked to an existing SDS under 'View SDS orders'—'Active orders' by clicking on the icon under 'Link other SDS'

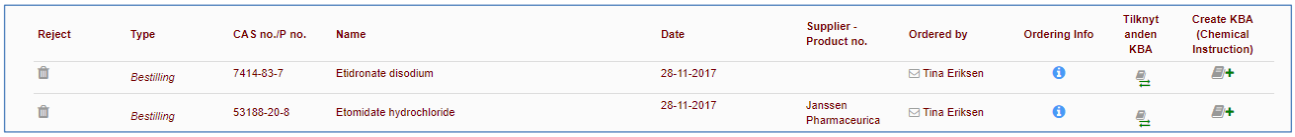


FIGURE 11-10: CLICK ON 'LINK OTHER SDS' TO TRANSFER AN ORDER TO AN EXISTING SDS.

When you click on 'Link other SDS', this dialogue box will be displayed to allow you to find the existing SDS you want to link the order to:

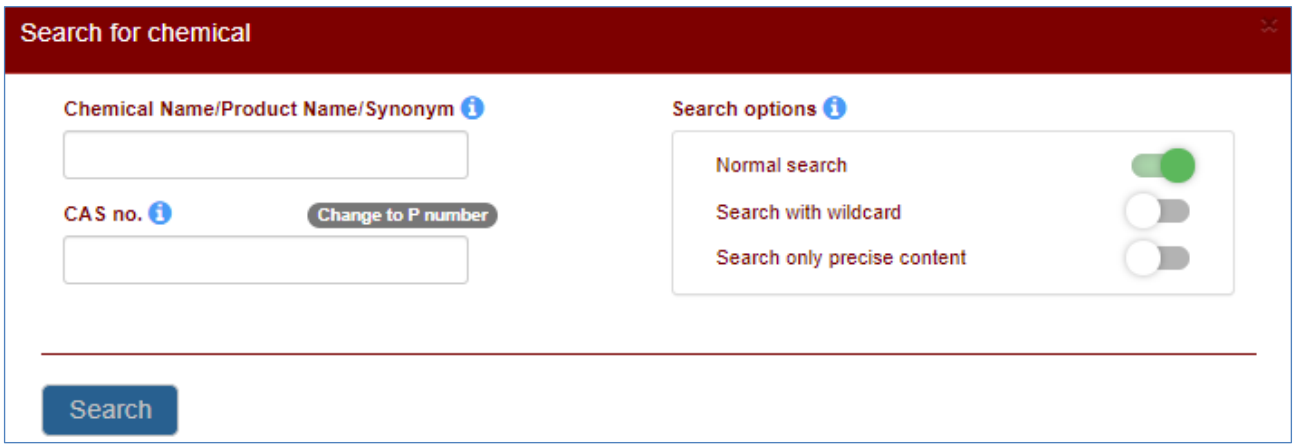
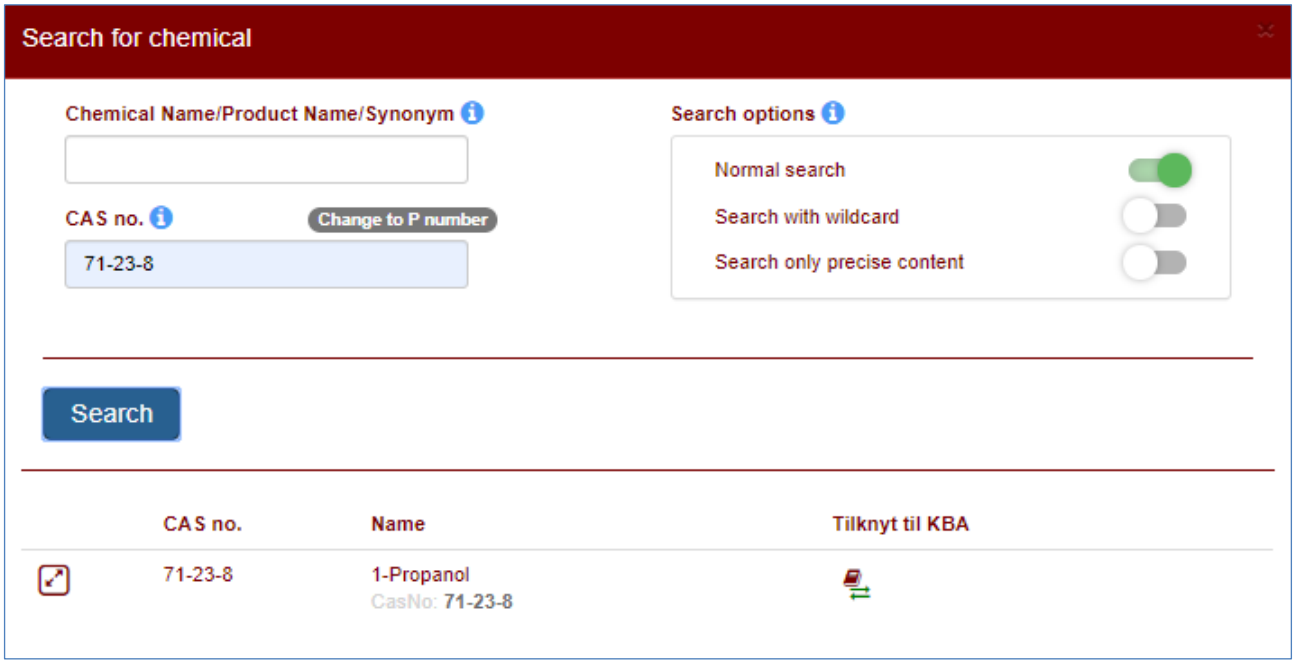


FIGURE 11-11: FIND AN EXISTING SDS THAT THE ORDER CAN BE LINKED TO.



11.2 Creating a Substance Data Sheet (SDS)

This chapter explains how an SDS is created, edited, and released in the system.

When you are logged in to 'Backend Team Private', you have the privileges to create and modify SDSs. Other organizations cannot change the SDSs.

11.2.1 Changing the type of substance

When they place an order, the user is asked to select whether the substance is a pure substance, a purchased mixture, an own mixture or a kit.

This type can be changed under the 'General' tab

11.2.2 Substance Data Sheet for a pure substance

The order for a pure substance is retrieved under 'View SDS orders'

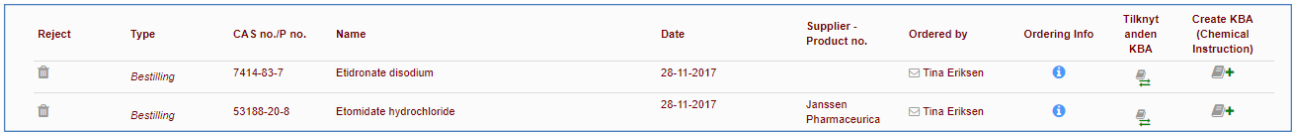


Figure 11-12: Retrieve the order for a pure substance by clicking on the icon under 'Create SDS'.

When you click on the 'Create SDS' icon and confirm that you want to create an SDS, the data entry screen for an SDS for a pure substance is displayed:

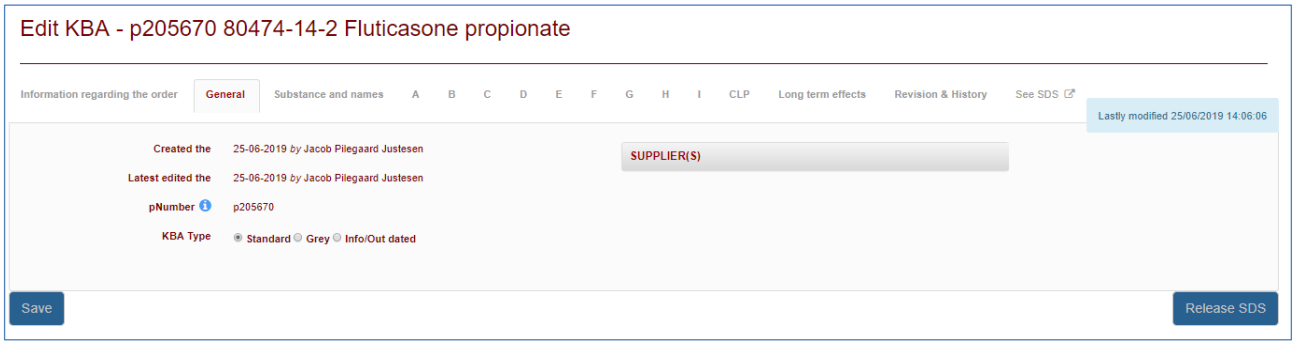


Figure 11-13: Start screen for a new SDS

You can expand ‘Supplier’ by clicking on ‘Supplier’:

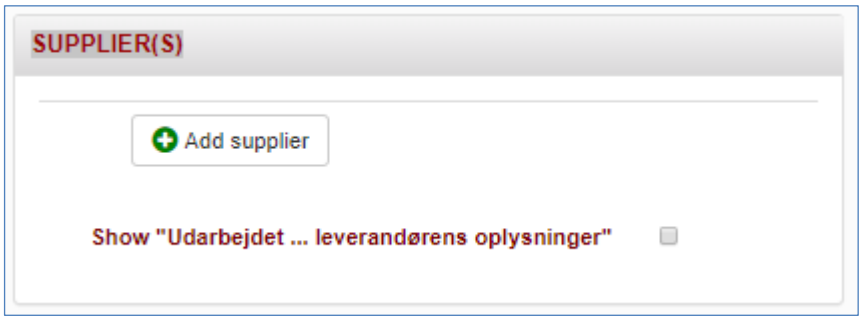


FIGURE 11-14: DATA ENTRY WINDOWS CAN BE EXPANDED OR COLLAPSED BY CLICKING ON THE GREY BAR.

There is a series of tabs that are basically self-explanatory.

The ‘Order info’ tab contains information on who ordered and when, and any files or comments. From this tab it is only possible to save or release the SDS.

FIGURE 11-15: ‘ORDER INFO’ SHOWING INFORMATION ABOUT THE SDS ORDER.

Chemical and name, with the option to enter synonyms, name, numbers, and formula. It is also possible to change the type of chemical from 'Pure substance' to 'Product' or 'Own mixture' if the requester has registered this incorrectly.

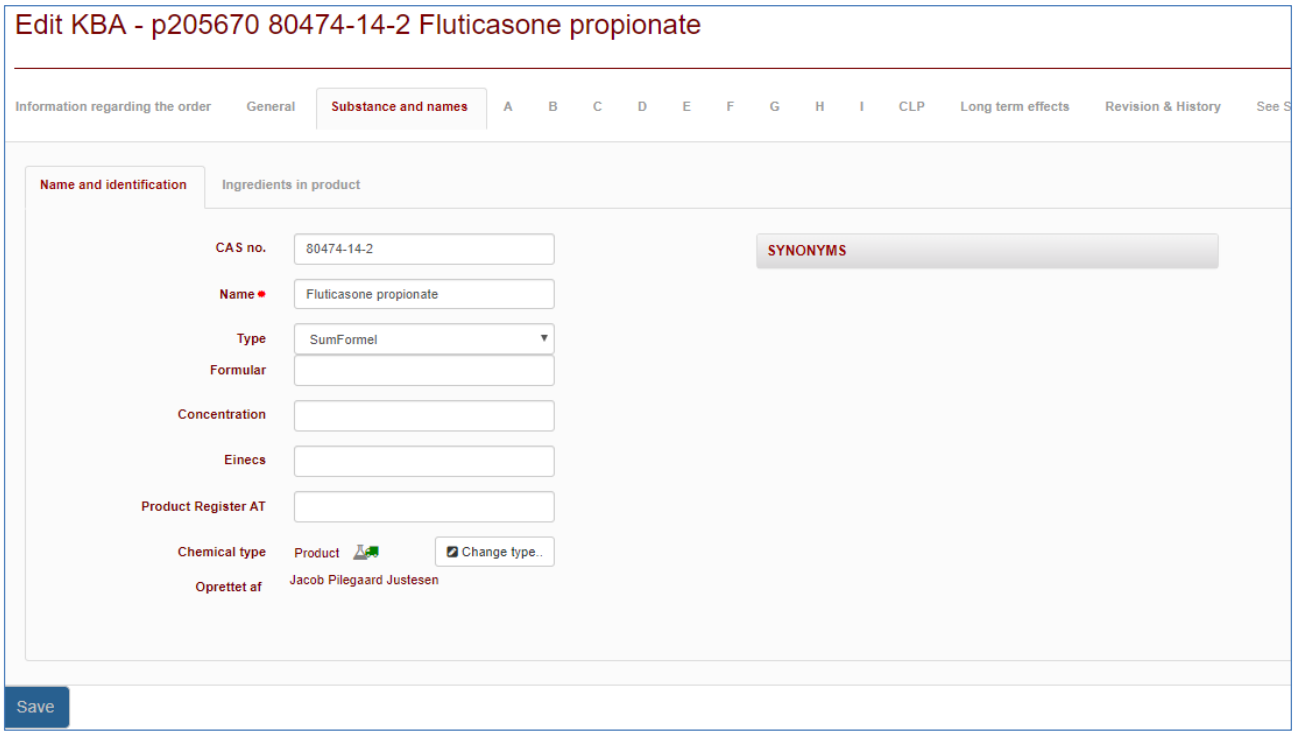


FIGURE 11-16: CHEMICAL AND NAMES.

Tabs 'A-I' are data entry pages for standard phrases for data for physical/chemical properties and environmental information.

The CLP tab allows you to enter a classification, signal words, and hazard statements.

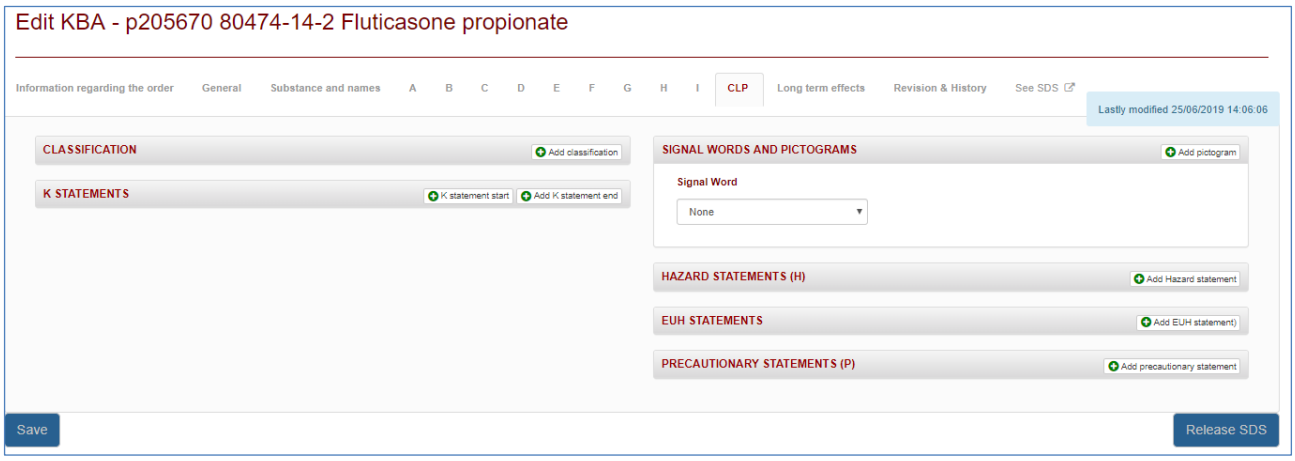


FIGURE 11-17: CLP.

Tab D contains four additional tabs: Description of substance/product, Physical and chemical data, Hazardous properties, and Harmful environmental properties. Physical/chemical data can be entered for the substance under each tab:

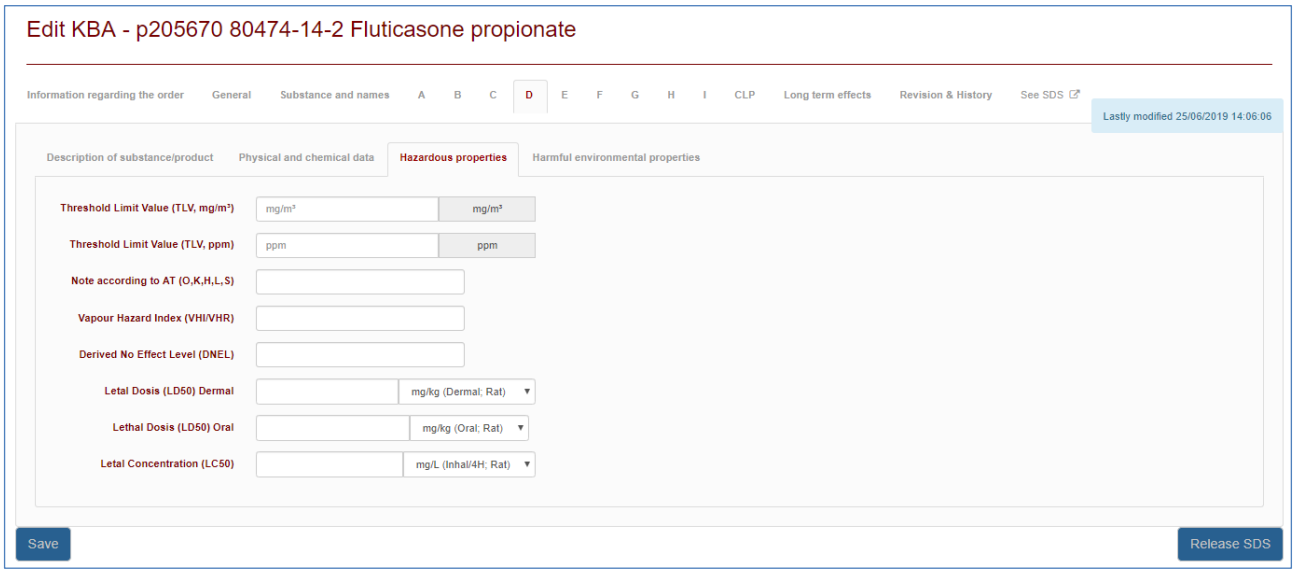


FIGURE 11-18: TAB D CONTAINS FOUR ADDITIONAL TABS FOR PHYSICAL/CHEMICAL DATA.

The 'Long-term effects' tab allows you to fill in the checklist

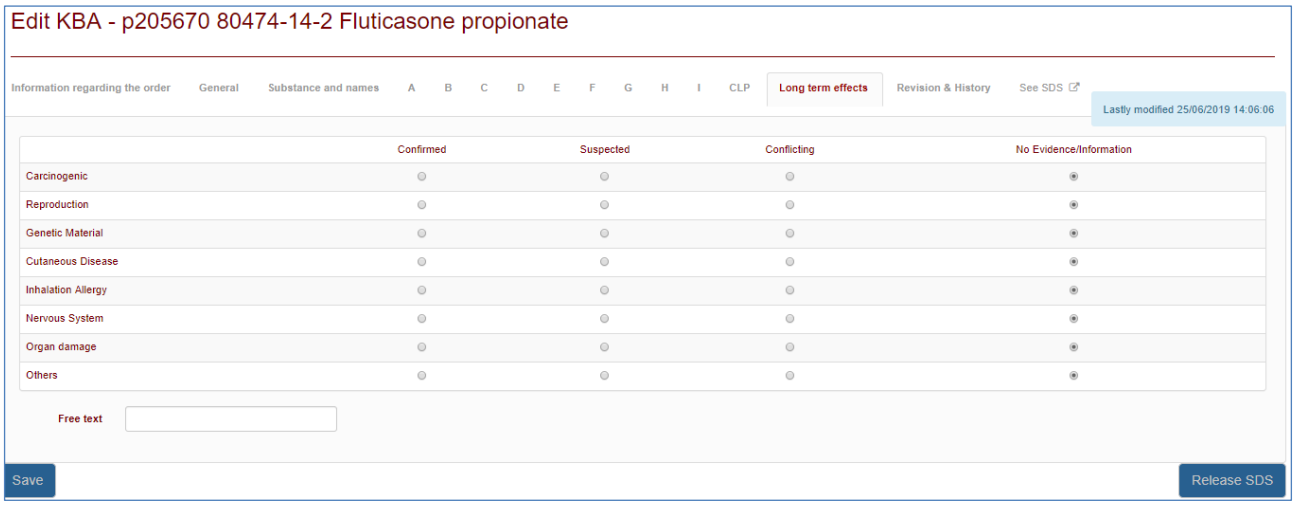


FIGURE 11-19: 'LONG-TERM EFFECTS' TAB.

Under the 'Revision & History' tab, you can enter a date and a description of the revision that has been completed.

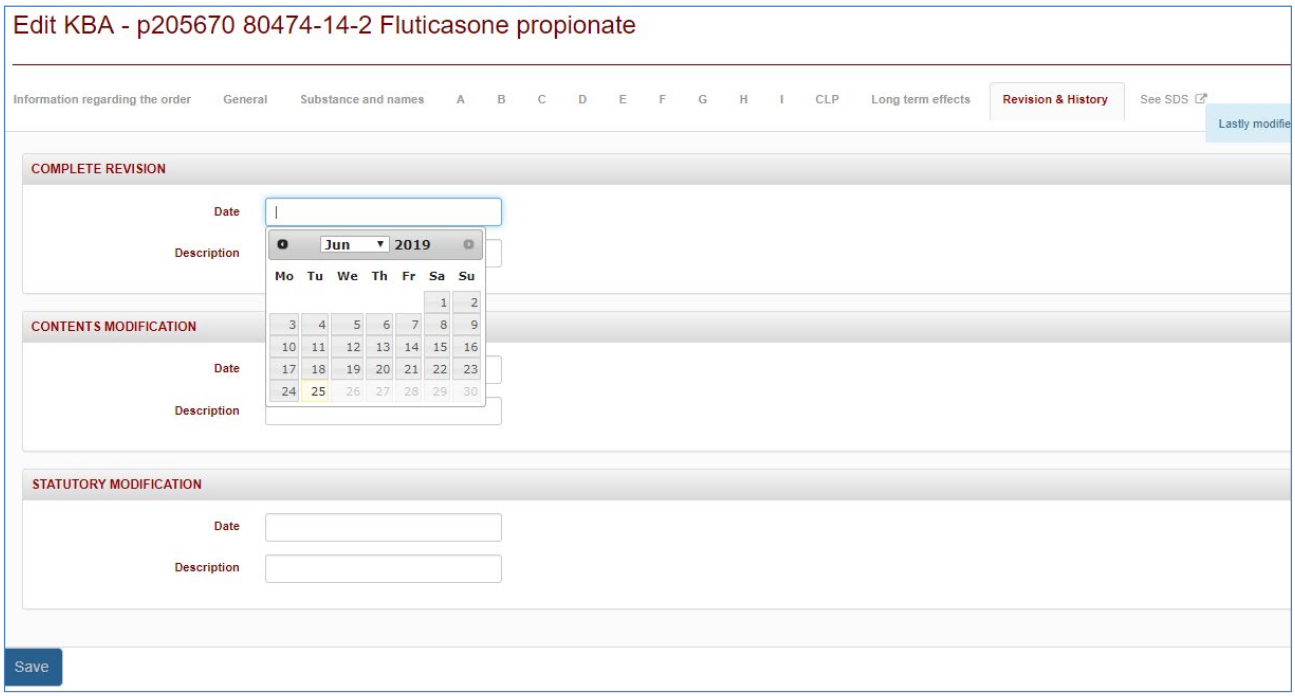


FIGURE 11-20: 'REVISION & HISTORY' TAB. THE CALENDAR IS DISPLAYED WHENEVER A DATE HAS TO BE ENTERED.

When you have opened the SDS data entry window, you can also open a window containing the SDS by clicking on 'View SDS'. On dual screens, the workstation will now look like this:

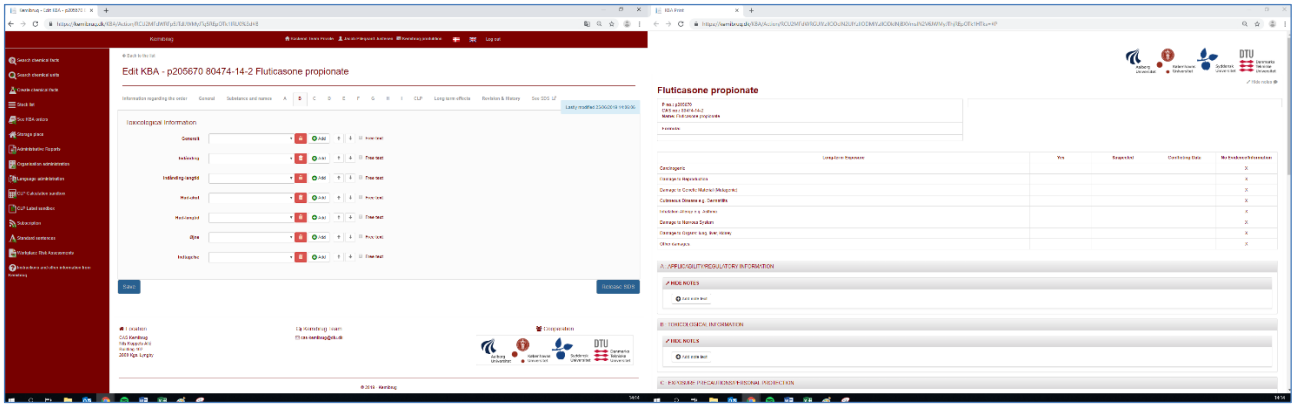


FIGURE 11-21: SCREENS FOR ENTERING SDS DATA.

11.2.2.1 ENTERING FREE TEXT

You can enter free text by clicking in the 'Free text' checkbox next to the default phrase selection.

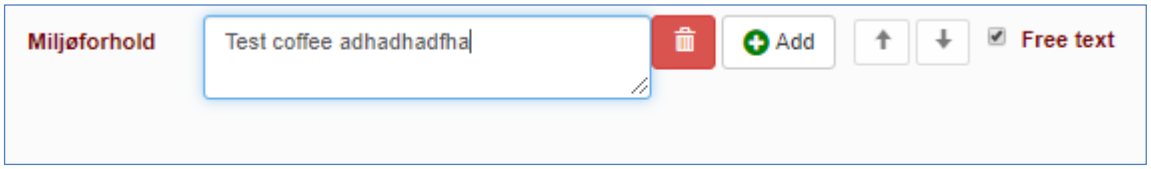


FIGURE 11-22: FREE TEXT

To translate the text into English, you must first save by clicking 'Save' and then selecting English by clicking on the British flag. The free text will be shown in Danish in the English window, and you can change or delete it. Once the English text has been entered, click on 'Save' again and you can switch to Danish again.

11.2.3 CHEMICAL DATA FOR AN 'IN PROGRESS' SDS

In the 'Search for SDS orders' menu, the chemical will be shown under both 'Active orders' and 'In progress'

FIGURE 11-23: 'ACTIVE ORDERS' SHOWS THE SDSS THAT HAVE NOT BEEN RELEASED.

In the 'In progress' list, click on 'View SDS' to view both the SDS and chemical data. In the chemical data form, the user has the option to load MSDS or insert a link.

FIGURE 11-24: SDS 'IN PROGRESS' SHOWS THE SDSS THAT HAVE BEEN CREATED BUT NOT RELEASED. FROM HERE YOU CAN VIEW THE SDS, CONTINUE TO EDIT IT, OR DELETE IT. THE PERSON WHO LAST MADE CHANGES WILL BE SHOWN IN THE 'CHANGED BY' COLUMN.

11.2.4 SUBSTANCE DATA SHEET FOR A PRODUCT

When an SDS has been ordered as a 'Purchased product', the 'Substance and name' tab has an additional tab called 'Ingredients in product'.

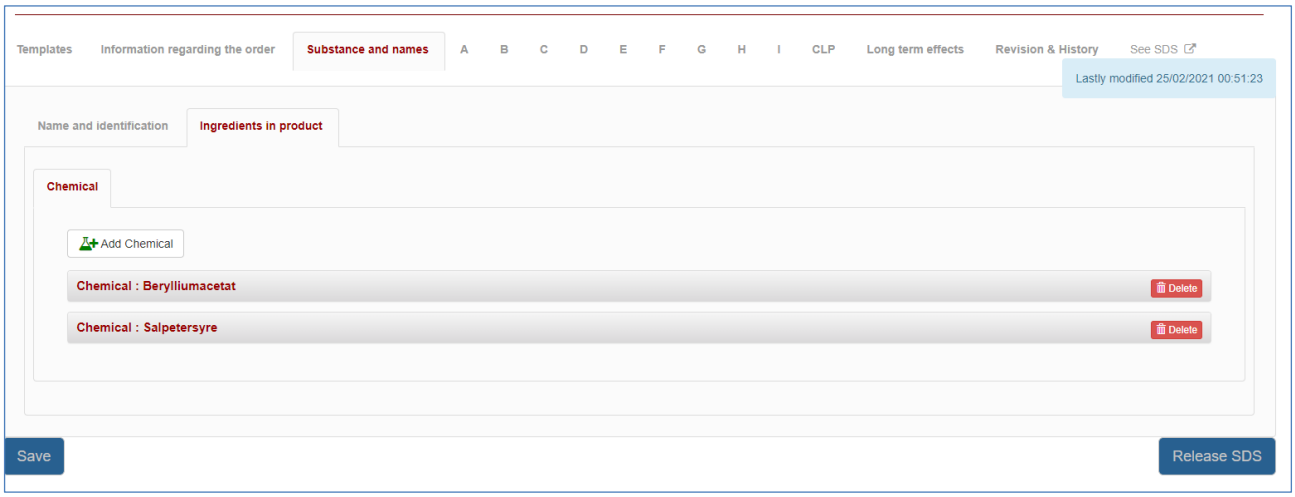


FIGURE 11-25: DATA ENTRY FOR A PURCHASED PRODUCT

When you need to enter an ingredient, click on 'Add chemical' and enter the chemical name or CAS no. and click on 'Search'.

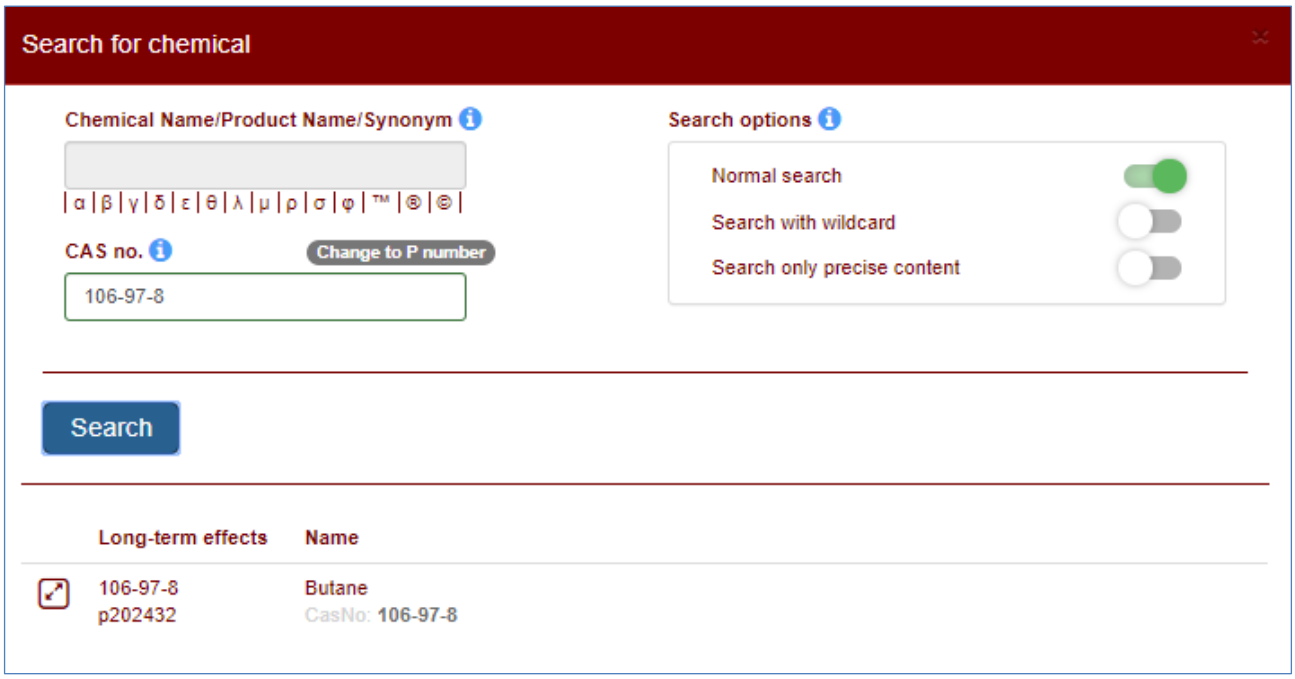


FIGURE 11-26: ENTERING AN INGREDIENT IN A PURCHASED PRODUCT

The data registered in Kemibrug for the chemical will then be displayed. It may be necessary, as shown here, to edit the classification to match the information provided by the supplier.

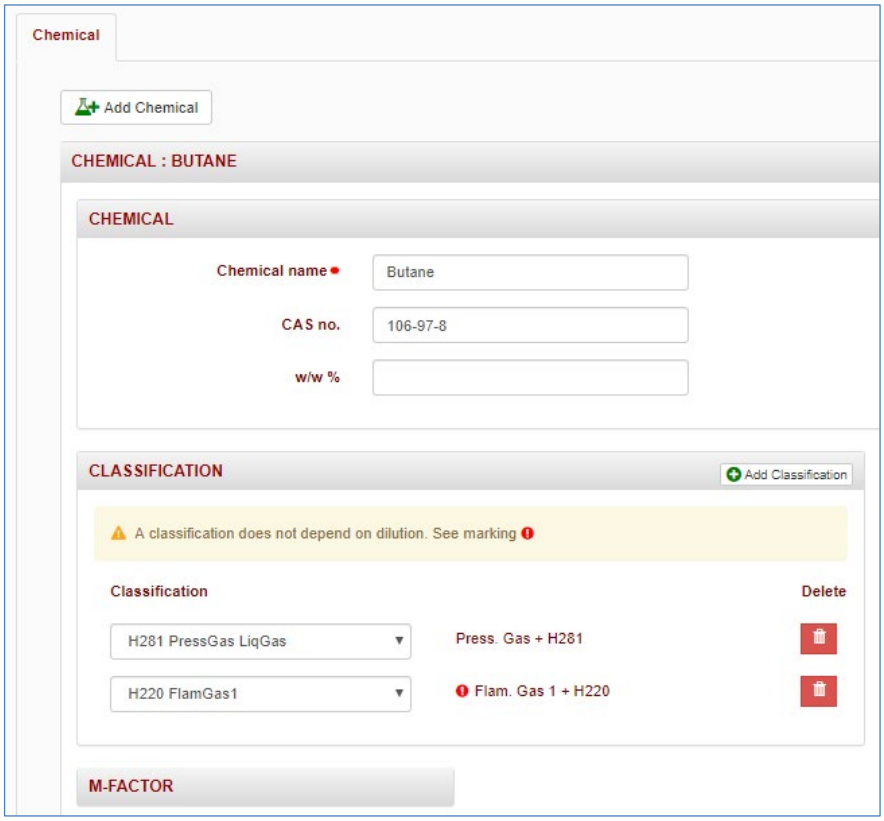


FIGURE 11-27: ENTERING AN INGREDIENT IN A PURCHASED PRODUCT

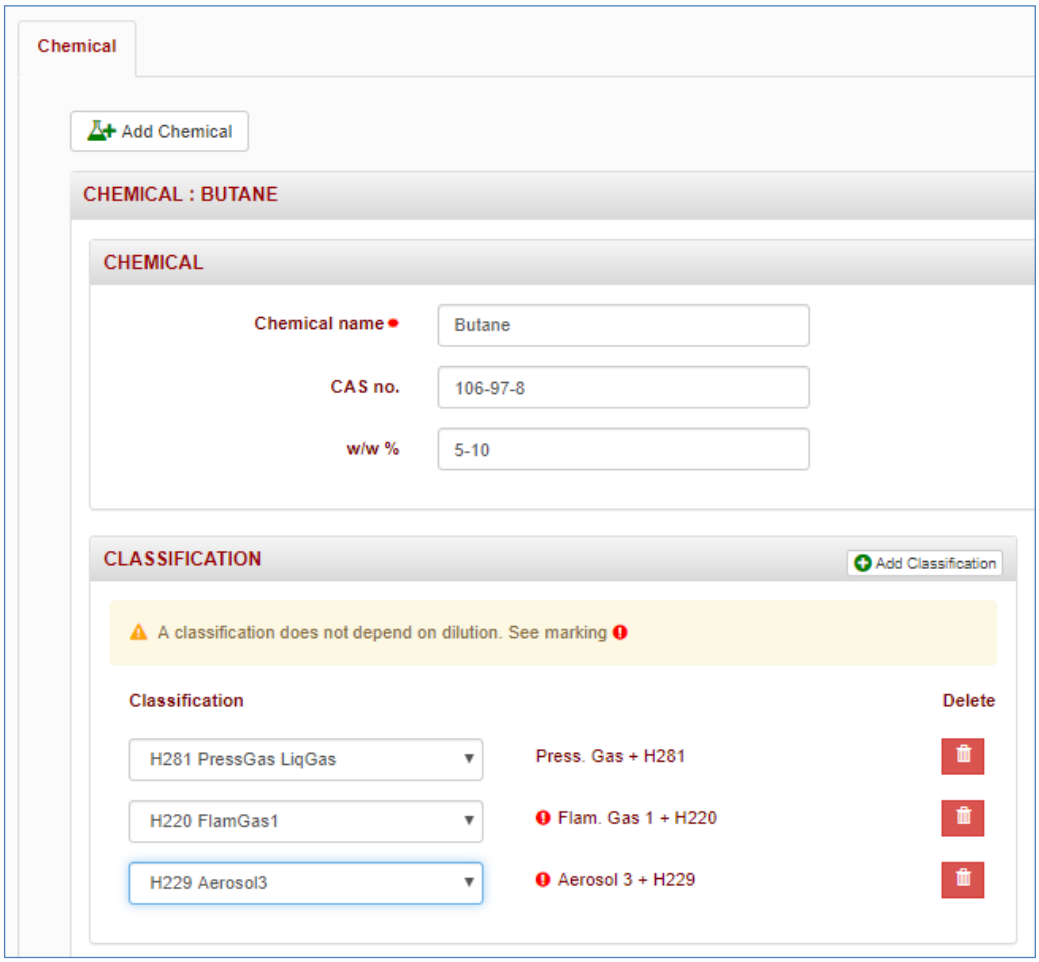


FIGURE 11-28: SUBSTANCE NAME AND CLASSIFICATIONS EDITED TO MATCH THE SUPPLIER'S LABELLING

The next ingredient is then entered and edited by clicking on 'Add chemical'.

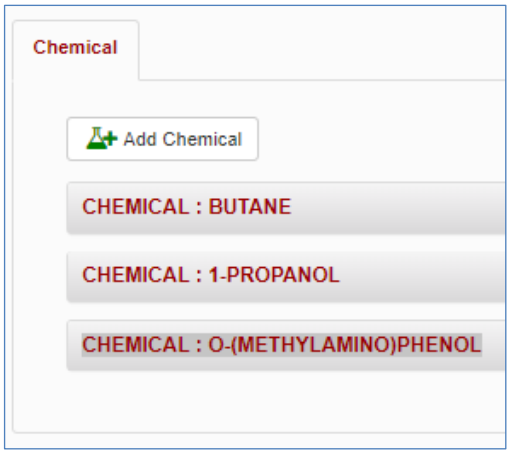


FIGURE 11-29: THE CHEMICAL NAMES IN THE PRODUCT HAVE BEEN ENTERED.

If a chemical is not registered in Kemibrug, select another chemical, such as CAS no. 0000-00-0 which is a blank template, and then edit the fields so they match.

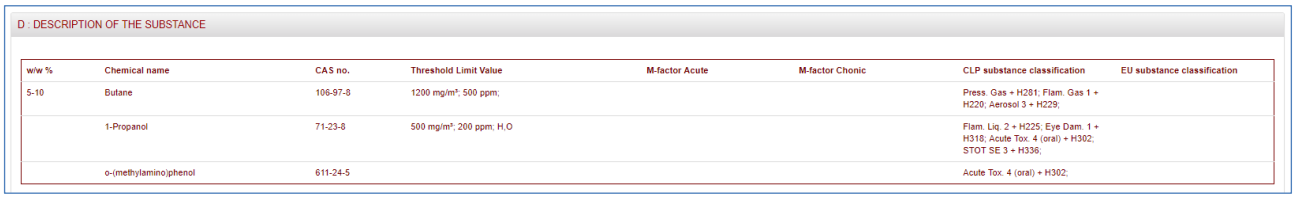


FIGURE 11-30: THE INGREDIENTS IN THE PRODUCT SHOWN IN 'VIEW SDS'.

11.2.5 SUBSTANCE DATA SHEET FOR AN 'OWN MIXTURE'

When a substance is ordered as an 'Own mixture', it usually comes with a CLP calculation, which can be found in the tab under 'Chemical and names'

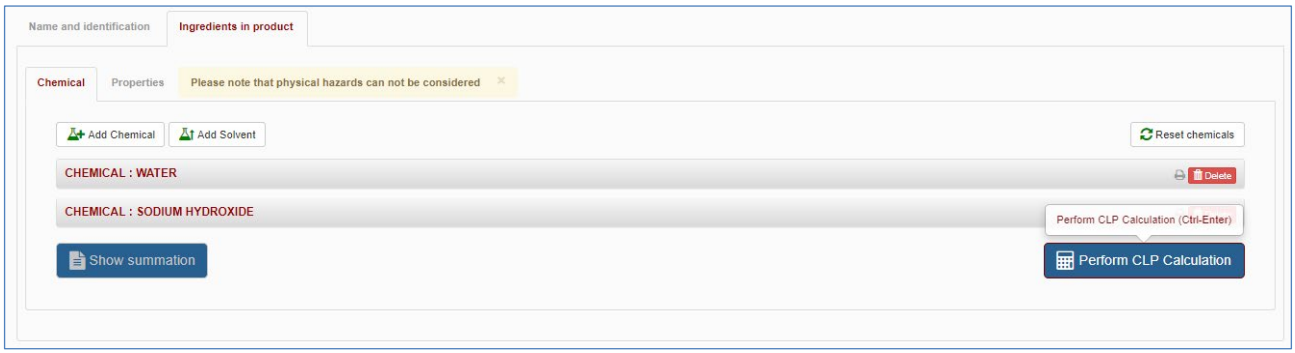


FIGURE 11-31: INGREDIENTS IN AN OWN MIXTURE SHOWN IN 'EDIT SDS'

The same ingredients have already been transferred to section D:

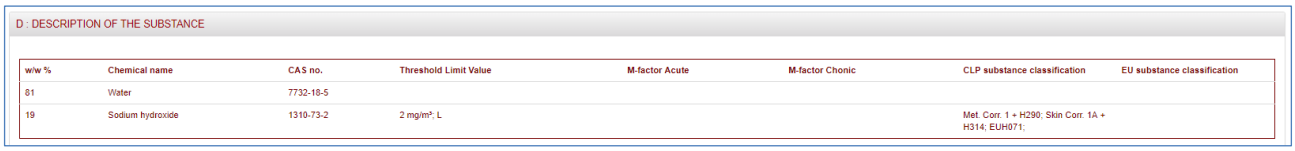


FIGURE 11-32: INGREDIENTS IN AN OWN MIXTURE SHOWN IN 'VIEW SDS'.

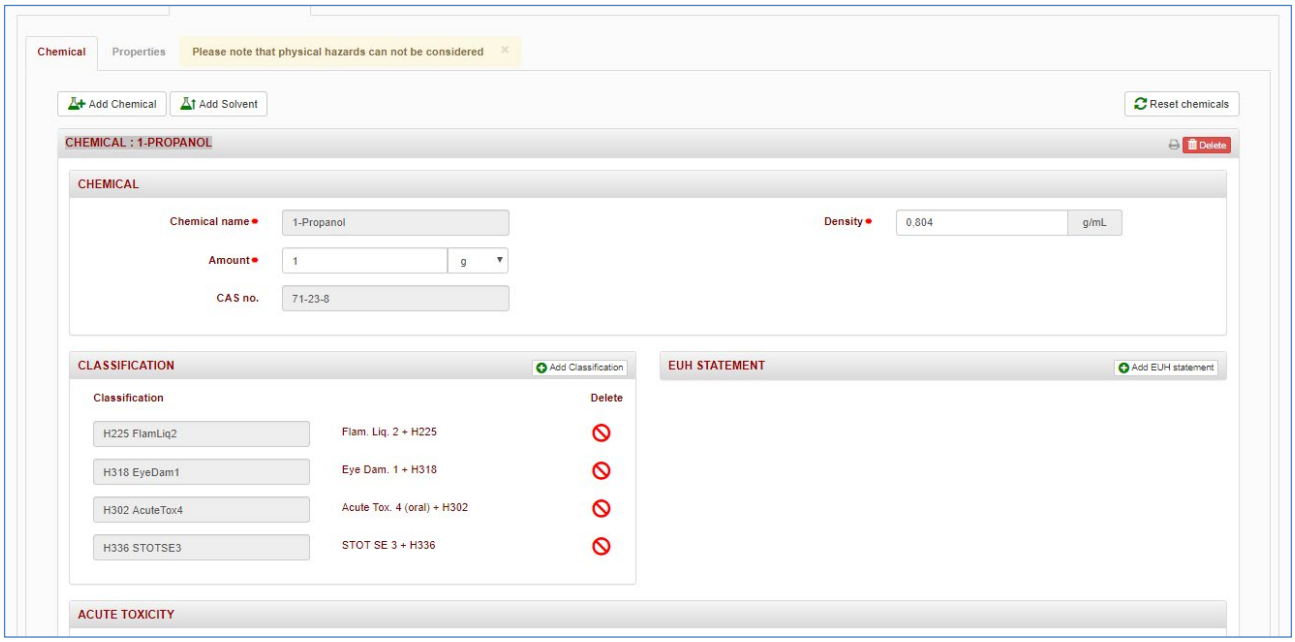
11.2.6 SUBSTANCE DATA SHEET FOR A KIT

Create orders for products in the kit

Add ‘part of’ kit name to existing kit components

Create

Tick ‘info’



11.2.7 RELEASE SDS

When the Substance Data Sheet has been completed, click on ‘Release SDS’. This releases the SDS. An email is sent to the requestor(s) and the SDS is merged with local stocks and notes.

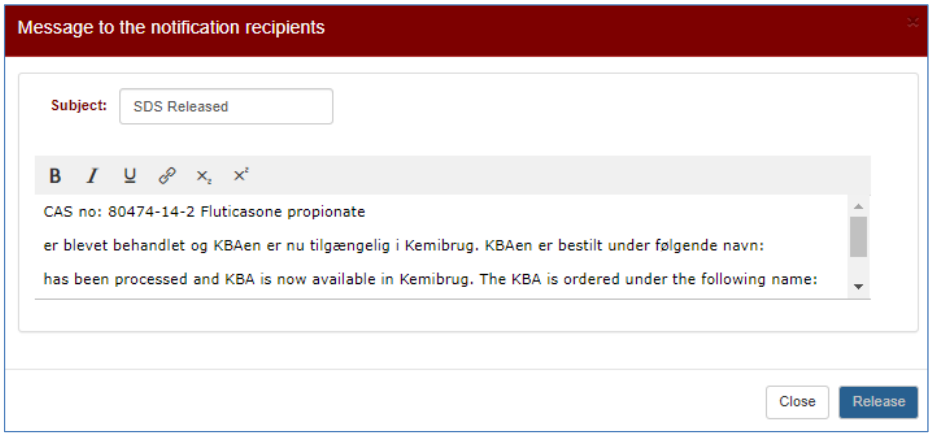


FIGURE 11-33: WINDOW SHOWING THE MESSAGE TO BE SENT REPORTING THAT THE SDS HAS BEEN COMPLETED. ADDITIONAL TEXT MAY BE ADDED.

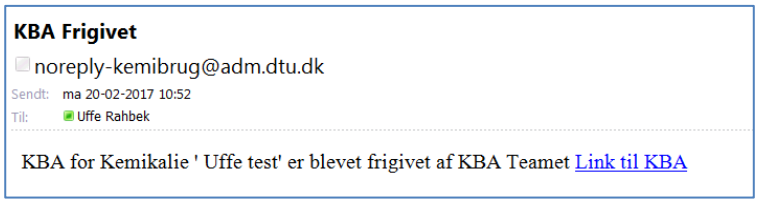


FIGURE 11-34: THE MESSAGE THE USER RECEIVES FROM KEMIBRUG WHEN THE SDS IS RELEASED.

11.3 LIST FOR A GIVEN INGREDIENT

A list can be created of the SDSs in which a given chemical is registered as an ingredient.

Select the 'Administrative reports' menu item and the 'Ingredients' tab. From here you can search for a name or CAS number as you normally do in Kemibrug, see section 4

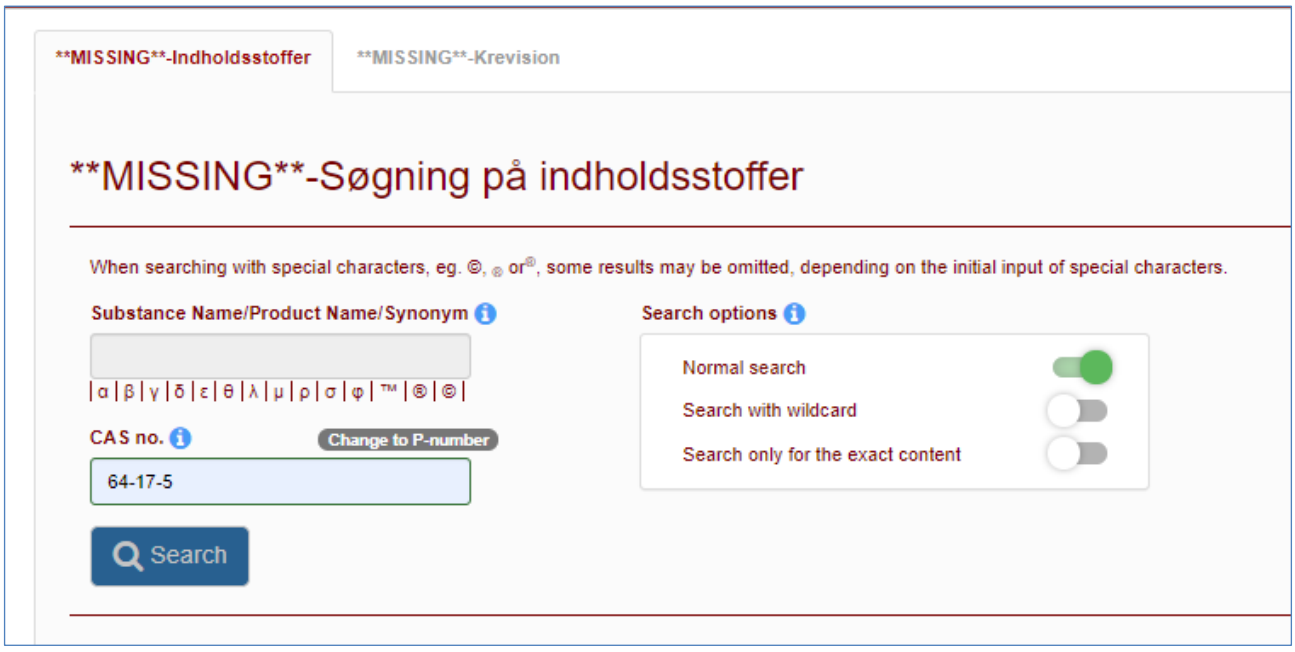


FIGURE 11-35: SEARCH FOR SDSS CONTAINING A SPECIFIC INGREDIENT.

When you click on 'Search', the list will be created and sent to your email address.

The list contains the name of the SDS, Kemibrug's P no., the date of the latest change, the type of SDS, and a link to the SDS. It is necessary to copy the link to the address bar of your browser if you want to use it to find the SDS.

Indholdsstofferrapport				
Navn	Pnr	Ændret	Type	Link
Diisoheptylphthalat		23-09-2012	Rent stof	https://kemibrug.dk/kemikalier/Action/RCU2MHolYzIlODIlN2UlYzIlODB2JWMyJTgxJTdleiVjMiU4N0RZeiVjMiU4OXYlN2UlYzIlODElYzIlODhETEZGSkw=
Mercox II	p115120	03-01-2018	Produkt fra leverandør	https://kemibrug.dk/kemikalier/Action/RCU2MHolYzIlODIlN2UlYzIlODB2JWMyJTgxJTdleiVjMiU4N0RZeiVjMiU4OXYlN2UlYzIlODElYzIlODhETU1GRkdl

FIGURE 11-36: SEARCH RESULTS FOR A SEARCH ON SDSS CONTAINING A SPECIFIC INGREDIENT.

11.4 LIST FOR K-REVISION

A list can be created of SDSs that have not been revised since a given date.

This function is available from the 'Administrative reports' menu. Select the 'K-revision' tab and enter the date you want to use. Then click on 'Order report' (see FIGUR 11-37)

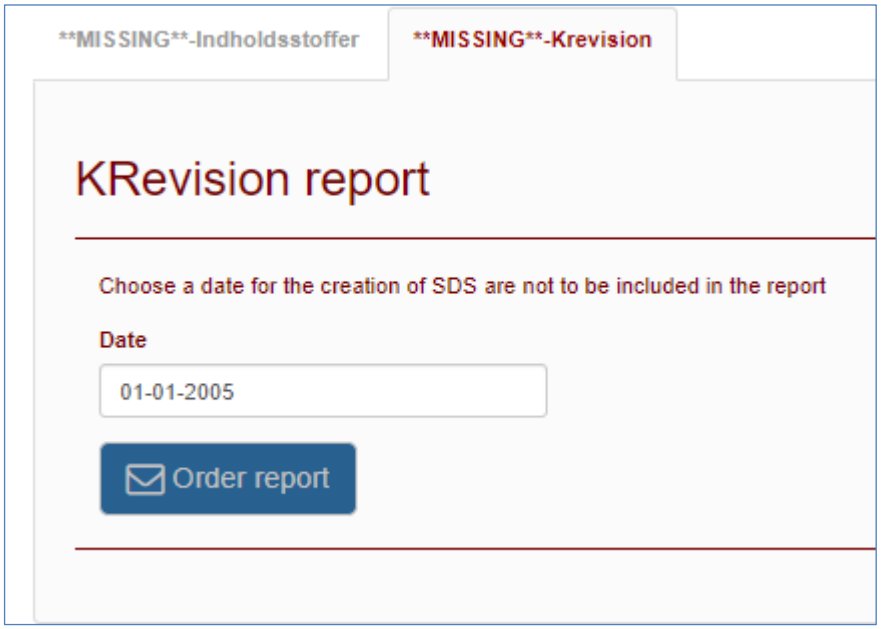


FIGURE 11-37: SCREEN FOR ORDERING A LIST OF SDSS THAT HAVE NOT BEEN REVISED SINCE A GIVEN DATE.

The report will be emailed to you. It contains columns showing the name of the SDS, Kemibrug's P no., the release date, the CAS no., the number of users who have attached stocks or notes to it, and the type of SDS.

	A	B	C	D	E	F
1	KRevisionRapport					
2	Navn	Pnr	FrigivelsesDato	CasNr	Interessenter	KemikalieType
3	G 642 B Copyrapid Pladerens	p323			0	Produkt fra leverandør
4	Korsolin	p104			2	Egen blanding
5	PLASTI DIP SPRAY	p129512			0	Produkt fra leverandør
6	zb-™58 bindemiddel	p19958	19-11-2007		0	Produkt fra leverandør
7	HydraWay HM 46	p707	2005-01-03		0	Produkt fra leverandør
8	Acticide®MBS	p706	2005-01-04		0	Produkt fra leverandør
9	Eagle (R) 2100 TC	p709	2005-01-05		1	Produkt fra leverandør
10	LubeWay XA 150	p708	2005-01-06		0	Produkt fra leverandør
11	EP 310 S Komponent A	p712	2005-01-13		0	Produkt fra leverandør
12	EP 310 S Komponent B	p711	2005-01-13		0	Produkt fra leverandør
13	(9-Fluorenylmethoxycarbonyl)glycin		2005-01-21	29022-11-5	15	Rent stof
14	Sulforavsyre 70% w/w	p100548	2005-01-22		1	Egen blanding
15	Glutaraldehyd 25% ≤ konc. <33,3%	p715	2005-01-27		0	Produkt fra leverandør

FIGURE 11-38: SPREADSHEET LISTING THE SDSS RELEASED BEFORE A SELECTED DATE.

The list is displayed in date order, with the oldest at the top.

12. LANGUAGE ADMINISTRATION

If you have the necessary privileges, you can edit some of the texts displayed on the screen. Click on the 'Language administration' menu item to open the language support editing window (see FIGUR 12-1)

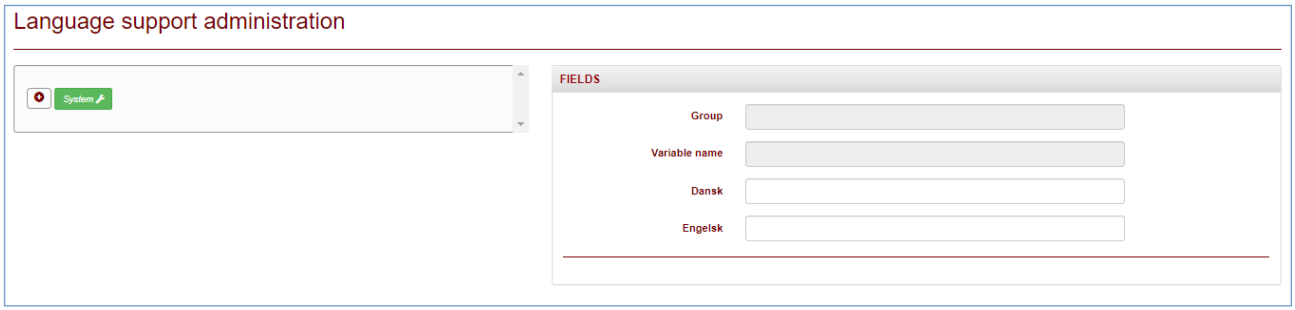


FIGURE 12-1: LANGUAGE SUPPORT SCREEN

Click on the '+' next to 'System' to expand the tree and the various sub-sections with language support (see FIGUR 12-2)

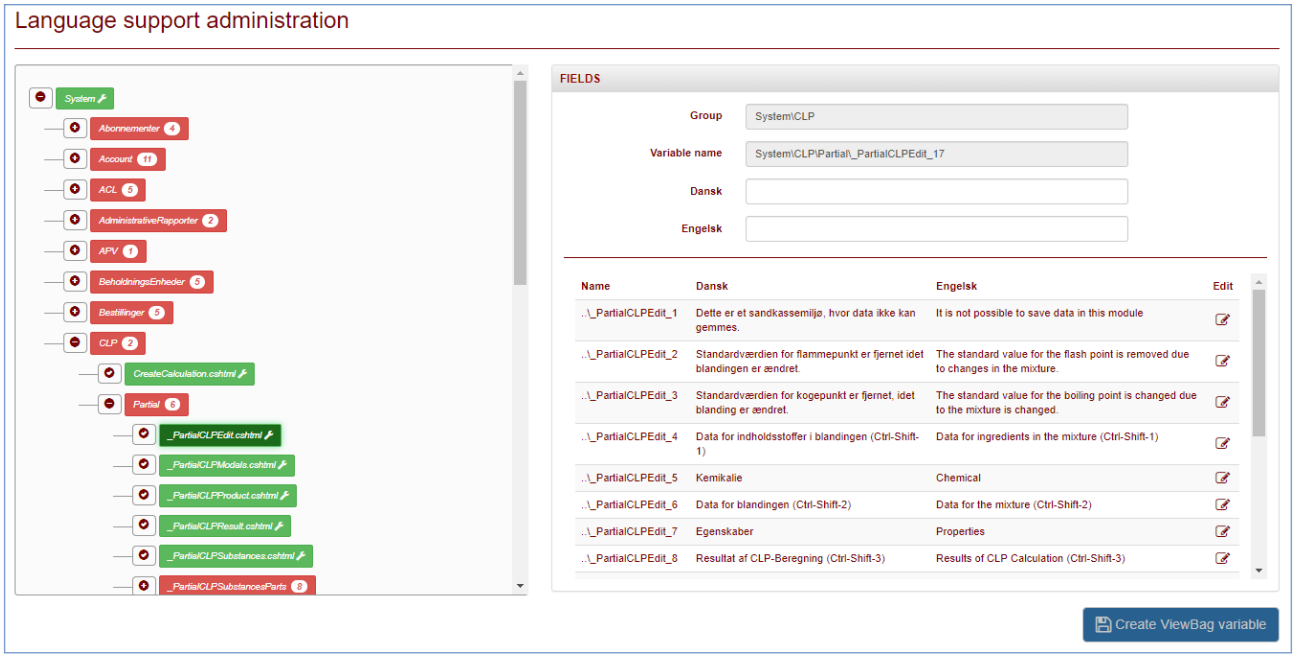


FIGURE 12-2: SCREEN FOR EDITING STANDARD TEXTS IN THE SYSTEM. TO EDIT A TEXT, CLICK ON THE PENCIL ICON ON THE FAR RIGHT.

12.1 DISPLAYING A MESSAGE ON THE WELCOME PAGE

When the system is down due to maintenance or you have another important message for all system users, a text can displayed inside a blue bar on the Kemibrug welcome page (Figur 12-3)

FIGURE 12-3: 'TEST' HAS BEEN ENTERED AS AN INFORMATION MESSAGE ON THE KEMIBRUG WELCOME PAGE

To display a text, go to the 'Language administration' menu item and click on the '+' next to 'Shared' so that it expands. Then select '_layout.cshtml'. At the bottom of the list of phrases you will find ..\ _layout_37 and ..\ _layout_38. Enter your text in '37'. If you leave '38' empty, your text in '37' is not displayed. Enter any text in '38' and the text in '37' will be displayed (see FIGUR 12-4)

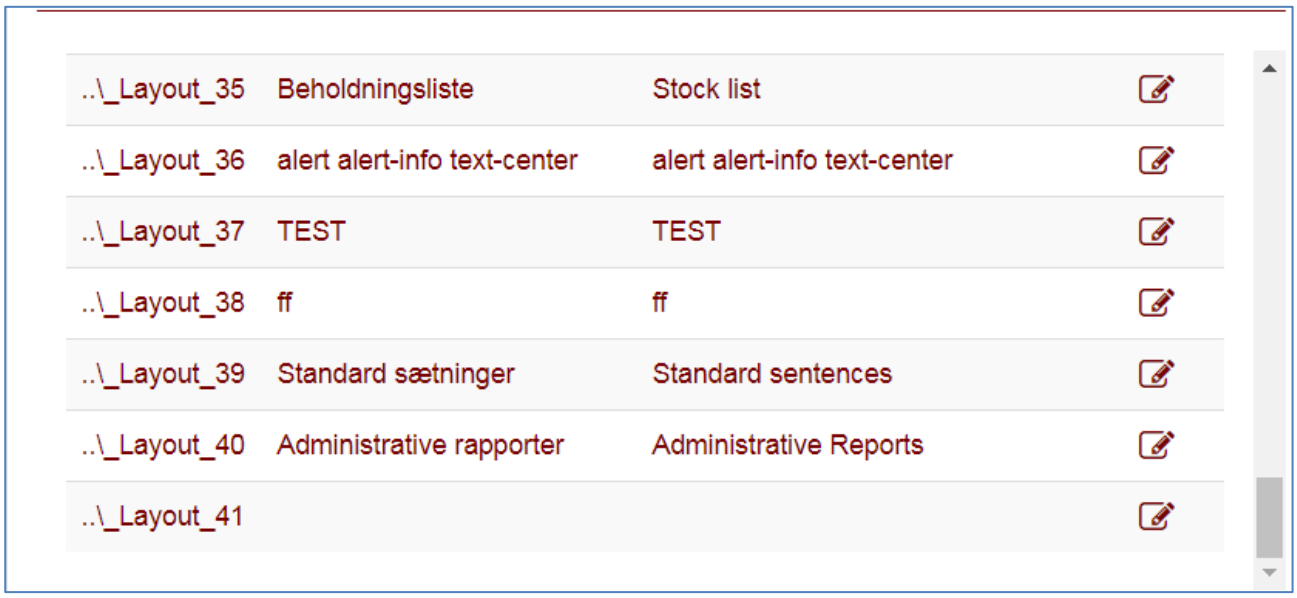


FIGURE 12-4: BOTTOM LEFT SCREEN IN THE 'LANGUAGE ADMINISTRATION' MENU – SHARED – _LAYOUT. CSHTML THE TEXT IN ..\ _LAYOUT_37 IS ONLY DISPLAYED IF SOME TEXT IS ENTERED IN ..\ _LAYOUT_38.