

BASICS OF SDS AUTHORIZING WITH SDScribe™ 2021

Congratulations on choosing **SDScribe™** as your powerful and affordable safety data sheet authoring tool. Authoring safety data sheets (SDSs) with SDScribe™ is most efficient if you follow these four steps:

Four Steps to a SDS

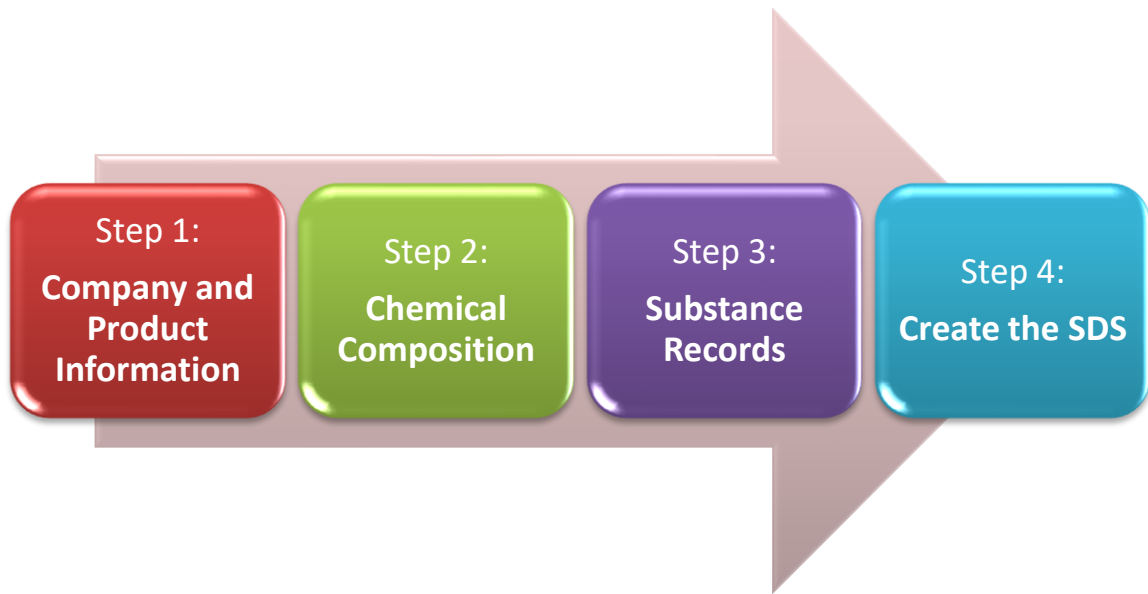


Table of Contents

Disclaimer	3
Configuration	3
<i>Activate SDScribe™</i>	3
<i>Personalize SDScribe™</i>	3
Step 1: Collect Company and Product Information	4
Step 2: Identify the Chemical Components to List in Section 3 of the SDS	4
<i>Is Your Product a Pure Chemical or a Mixture?</i>	4
<i>Formulation versus Chemical Ingredient List</i>	4
<i>SDSs of Raw Materials</i>	5
<i>Assembling a Master Ingredient List</i>	5
Step 3: Substance Records for Chemical Components and Ingredients	6
<i>Strategy: Pure Chemical Components and then Mixtures Which Contain Them</i>	6
<i>Substance Records are Rich with Data:</i>	6
<i>Substance Views</i>	6
<i>STEP 3a: Creating a Substance Record for a Chemical Component – 9 TABS</i>	8
<i>STEP 3b: Creating a Substance Record of a Mixture - 5 TABS</i>	13
STEP 4: Create the SDS using Templates and/or Stock Phrases	16
<i>About SDS Templates</i>	16
<i>About Stock Phrases</i>	16
<i>Completing a SDS</i>	17
<i>Suggestion Wizard: Tool for Health Hazard</i>	20
<i>Completing Sections 4- 16</i>	22
Additional Features of SDScribe	26
<i>Guide Wizard</i>	26
<i>Customizing hazard (H-) and precautionary (P-) statements</i>	28
<i>Creating labels (end-user GHS and shipping)</i>	28
<i>Determining health hazard classifications in products that are mixtures</i>	29
<i>Green Products</i>	30
<i>Cosmetics / Personal Care</i>	30
<i>Inventory and Production Manager</i>	31
Some Resources	33
<i>GHS Hazard Classification Data for Section 2</i>	33
<i>Exposure Limit Data for Section 8</i>	34
<i>Toxicological and Ecological Data for Section 11 and 12</i>	36

Disclaimer

These tips are intended to assist you in using SDScribe™ as an authoring tool for Safety Data Sheets and labels. The examples and other information in this document do not constitute specific recommendations for SDS content. Manufacturers are responsible for ensuring that any SDS or label is accurate and meets all legal requirements. This document is not a complete description of the features and functionality in SDScribe™. For additional help with the program,

- Refer to the video guides on our [YouTube channel](#)
- Refer to our [FAQ list](#)
- Visit our [web site](#)

Information is also generally available within the program on individual fields, by hovering your mouse over the field of interest. In the SDS section, you can also select "Background for this section" or "Guide this item" from the [Help](#) button pop-up menu. Because we are frequently revising the capabilities and features of SDScribe™, the descriptions and recommendations in this document may not be fully up-to-date with the latest revision of the program.

Configuration

Activate SDScribe™

Once a payment is made (e.g., via PayPal), we will email the licensee name and the associated license number. Select File (menu) -> Preferences from the menu bar, to display the Preferences dialog. Click on the **License** button to display the registration dialog (see image below) and enter the licensee name and license number, exactly as they appear in the email message. Then click on the **OK** button to dismiss the registration dialog.

If the program indicates that the license number is invalid, and you copied and pasted the number from the email message, try to: (1) backspace over the last character, and re-enter it; or, if (1) does not work, (2) re-enter the full license number from the keyboard.

NOTE: You must also click on **Save** to close the Preferences dialog, or the program will not retain your registration information.

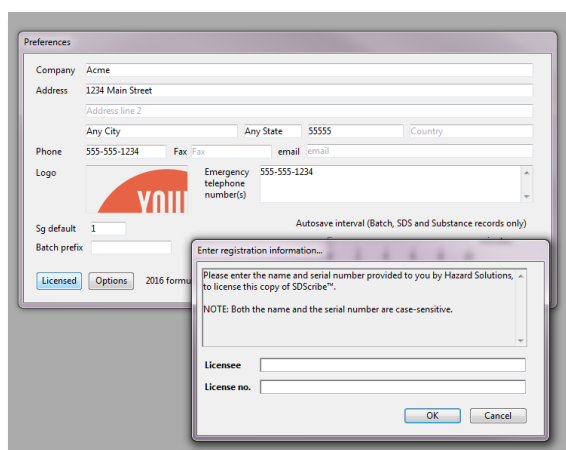


Fig 1a Preferences dialog (background) and license entry dialog.

Personalize SDScribe™

From a graphics program, copy your company logo onto the computer's clipboard. Then, from within SDScribe™, select File (menu) -> Preferences from the menu bar to display the Preferences dialog. Right-click into the Logo box, and select "Paste" from the contextual menu. If you haven't already done so, enter your company name, address, telephone, etc. into the Preferences dialog (Fig 1a).

Step 1: Collect Company and Product Information

The first step is to have available information that you will need on your company and the characteristics of each product.

- Company name, address, phone number, logo
- Product name and number (if applicable)
- Use of product (e.g., Toilet bowl cleaner)
- Chemical properties of the product
 - Appearance and odor
 - Laboratory testing data, if available, such as: relative density, pH, melting point, boiling point, flash point, viscosity, etc



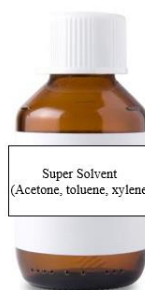
Step 2: Identify the Chemical Components to List in Section 3 of the SDS

Is Your Product a Pure Chemical or a Mixture?

Ask yourself this question: Is your product a pure chemical, such as Acetone with its very own CAS# or is it a mixture of multiple chemicals, such as Acetone, Toluene, and Xylene, in various weight percentages?



Product is a pure chemical



Product is a mixture of chemicals

Formulation versus Chemical Ingredient List

A common conundrum is whether it is best to start with a formulation/recipe or a chemical ingredient list. There is often a big difference between the two. A formulation lists raw materials with the respective weight percent needed to create the product. It is like a recipe. A raw material could be a pure chemical or a product which is a mixture of chemicals. On the other hand, a chemical ingredient list is just that: a list of each chemical in your product with its respective weight percent. The chemical ingredient list (or some part of it) is ultimately included in Section 3 of the safety data sheet. SDScribe™ can accommodate either of these situations. It is important to determine which one applies to you.

Raw Material	Weight	Weight %
DETERGENT OR SOAP MIXTURE	480.00	48.00
DEFLECTANT 1	345.84	34.58
DEFLECTANT 2	172.72	17.27
HYDROXYETHYLCELLULOSE	452.40	45.24
DIETHYLENE GLYCOL	20.00	2.00
PERACETIC ACID	0.17	0.02
DETERGENT OR SOAP MIXTURE	452.40	45.24

Fig 1b. Formulation or recipe or batch sheet

Raw Material	Components (chemical name)	Components (CAS#)	Concentration
Super Cleaner XYZ	Methenamine 3-chloroallylochloride Trade name: Dovicil 75	4080-31-3	10
Super Cleaner XYZ	Hexamethylenetetramine	100-97-0	4
Super Cleaner XYZ	1,3-Dichloropropene	542-75-6	4
Super Cleaner XYZ	Propylene glycol	57-55-6	2

Fig 2. Chemical ingredients with concentration by weight of Super Cleaner

SDSs of Raw Materials

A very important task, which is often skipped, is to collect the latest version of the SDS of each raw material you use, preferably in an electronic format. It should be in the GHS format, and if you see the GHS pictograms with red borders (see below), this is a good indication that the SDS is in the GHS format. You should also verify the date is recent, preferably 2014 or later. This is a good time to also inspect Section 3 of the SDSs to see if the raw material is a pure chemical or a mixture. This will make more sense as you proceed.



Fig 3. Section 2 of a SDS illustrating GHS pictograms

Assembling a Master Ingredient List

Next, create a list or spreadsheet with columns labeled **Raw Material**, **components (chemical name)**, **CAS#**, **concentration** and **Validated**. This is an important step which will save you time since it will help you keep track of which specific chemical component records have already been completed and verified so you are not wasting time going back to the same record. In the example below, you will note that the Substance records for Dovicil 75 with CAS: 4080-31-3 and Hexamethylenetetramine with CAS: 100-97-0 have been marked Validated.

Raw Material	Components (chemical name)	Components (CAS#)	Concentration	Validated
Super Cleaner XYZ	Methenamine 3-chloroallylochloride Trade name: Dovicil 75	4080-31-3	10	done
Super Cleaner XYZ	Hexamethylenetetramine	100-97-0	4	done
Super Cleaner XYZ	1,3-Dichloropropene	542-75-6	4	
Super Cleaner XYZ	Propylene glycol	57-55-6	2	
Boric Acid	Boric acid	10043-35-3	100	
Acme Cleaner A	Propylene glycol	57-55-6	80	
Acme Cleaner A	Ethyl alcohol	64-17-5	2	

Fig 4. Sample of a Master Ingredient List

You will also note that CAS: 57-55-6 appears in both Super Cleaner XYZ and Acme Cleaner A. So once you have completed the CAS: 57-55-6 and marked it done, you will not need to revisit this record (see below). You will see in SDScribe, there is a **Validated** checkbox in Substance records that you can use. More on this later.

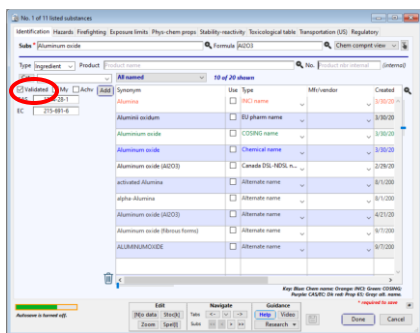


Fig 5. Chemical component view of a Substance record. Validated checkbox is circled in red.

Step 3: Substance Records for Chemical Components and Ingredients

Strategy: Pure Chemical Components and then Mixtures Which Contain Them

There are literally hundreds of thousands of unique chemicals, and SDScribe™ has almost 100,000 of them! And thankfully for most of you, we have 99% more chemicals in our database than you will ever need. Many manufacturers have successful product lines using 10 or fewer different raw materials (e.g., a few solvents, surfactants, colorants, fragrances). And if you add up the total number of chemicals in all of your raw materials, there may be 50 or fewer unique ones. So the most time effective way to use SDScribe™ is to ensure Substance records of your chemical components are complete and marked validated. To save you time, many of the substance records have already been populated for you from imports we have done. However even manufacturers of the same pure chemical will often assign different hazard classifications. So it is important for you to be able to edit even data that is in records that we provide you.



Substance Records are Rich with Data:

- Over 90,000 substance records with CAS #
- GHS classifications, hazard phrases, pictograms, and signal words for over 3,000 chemicals.
- OSHA exposure limits for over 400 chemicals
- Toxicity data in over 400 chemicals
- Cosmetic data (EU Cosing) in over 15,000 chemicals
- EPA Safer Choice Ingredients in over 1,000 chemicals

And as we mentioned earlier, if you have a chemical ingredient list to work from (see Fig 2), you only need a Substance record for each of the chemical ingredients. If you work off formulation or recipe sheets, you will also want to create a Substance record of each raw material/ingredient which lists the chemical components of the particular raw material/ingredient. You will see that SDScribe™ will carry over the data from chemical as the raw materials themselves are entered as components in Section 3 of the SDS. The database will carry over the chemical-specific data from each of these chemical component records as they are added to the SDS.

In SDScribe™ 2021, there are three views of a Substance record for you to choose from depending on what you are trying to accomplish. The views present the typical minimum fields to be completed in each record.

Substance Views (see Fig 6-8)

- **Chem compnt view** – 9 tabs for entering chemical component data, which typically have their own CAS#
- **Ingrid & prod view** – 5 tabs for entering Ingredients and Raw materials which are mixtures of chemical components
- **Full view** – 28 tabs with all data fields shown, including the Green and Cosmetics tabs

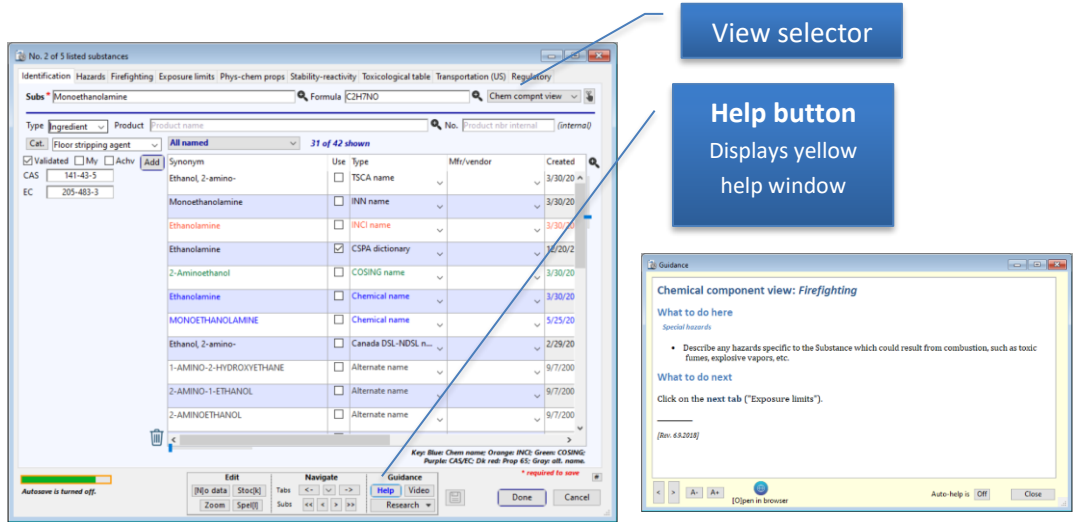


Fig 6. Chem compnt view of Monoethanolamine (Identification tab)

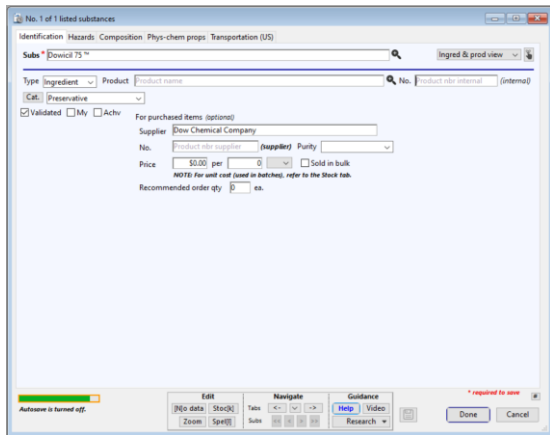


Fig 7a. Ingrid & prod view of Dowicil 75™ (Identification tab)

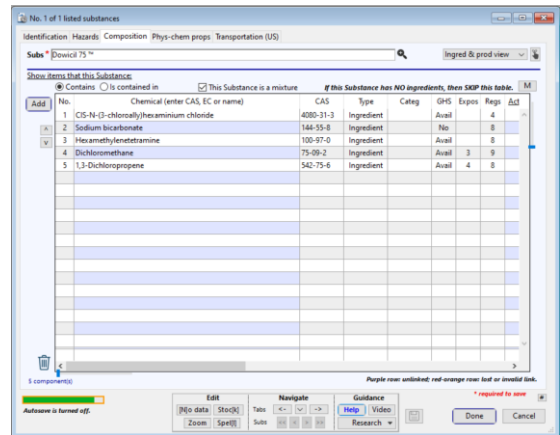


Fig 7b. Ingrid & prod view of Dowicil 75™ (Composition tab)

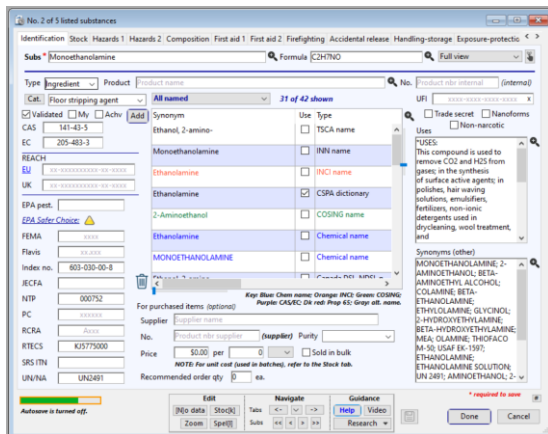


Fig 8a. Full view of Monoethanolamine (Identification tab)

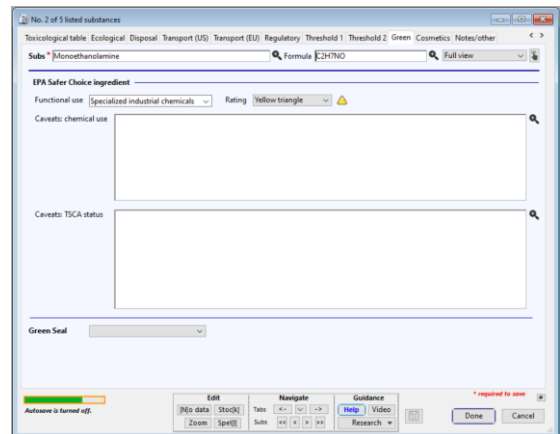


Fig 8b. Full view of Monoethanolamine (Green tab)

STEP 3a: Creating a Substance Record for a Chemical Component – 9 TABS

Select: **Chem. Compnt** view.

1) Select the **Identification** tab (see Fig 6.)

- Subs** (required). Enter a Substance name. Can be a chemical name for a "pure" material (i.e., not a mixture), or a product or generic/trade name for other items. Examples: "Sodium hydroxide" is a chemical name; "mineral spirits", "petroleum spirits", and "solvent naphtha" are generic names; and "Varsol" is a trade name.
- Product** (optional). If this Substance record represents a product — either yours or something from another company — and you did not already enter a product name in the Subs box, then enter it here.
- Formula** (optional). If the Substance is a pure chemical, enter the chemical formula; otherwise leave this field empty.
- CAS** (recommended, if available). If the Substance has a CAS number (Chemical Abstracts Service registry number), then enter it here. If the Substance has more than one CAS number, then you can also use the Synonym table (discussed below) to enter all CAS numbers, and place the main CAS number in this field.
- EC** (recommended, if available). If the Substance has an EC number (European Commission registry number), then enter it here. If the Substance has more than one EC number, then you can also use the Synonym table (discussed below) to enter all EC numbers, and place the main EC number in this field.
- No.** (optional). If you use an internal product number for this Substance, you can enter it here.
- Type** (optional). Indicate whether you use the Substance as an ingredient in your products; as a product; or as both an ingredient and a product.
- Cat.** (optional). Use the drop-down menu immediately to the right of the "Cat." button to select the type of Substance, if desired. Examples of categories are: surfactant, solvent, colorant. (The "Cat." button allows you to customize the categories which will appear in the drop-down menu.)
- Validated** (recommended) to keep track of records you have already reviewed and determined to be complete. These records will appear in **blue text**
- Synonym table** (optional).

2) Select the **Hazards** tab. (see Fig 9.)

- Enter **GHS Hazard Classification(s)** for the substance

Note: GHS classifications, hazard phrases, pictograms, and signal words for over 3,000 chemicals have been imported into Substance records for you. For additional explanation see [Resources](#).

- If **non-hazardous**, check off the **"Not GHS classified"**
- Click on **"Multi-select"** button and select the applicable GHS hazards. Use Ctrl on your keyboard to select multiple.
- Click on **"Regenerate related items"** button to regenerate related items for the listed hazard classifications.
- Specific concentration limits (SCLs) and M-factors and also nanoform characteristics can be entered

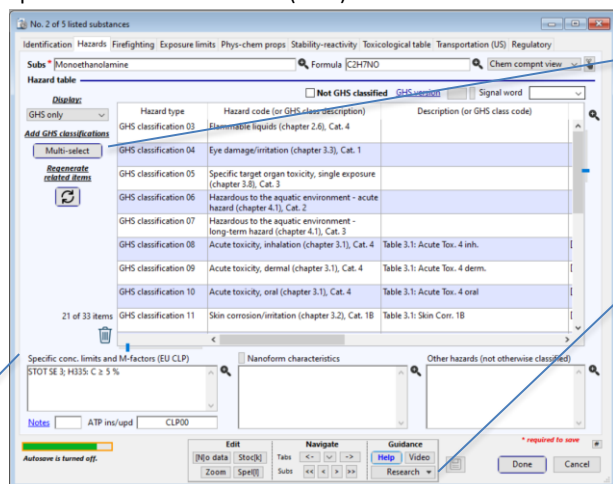
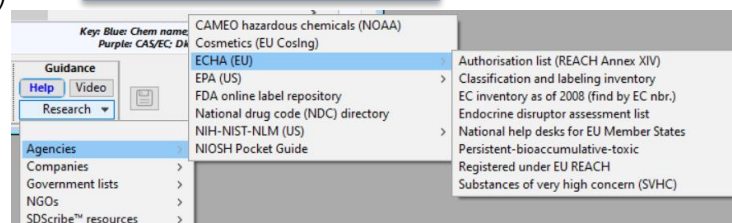


Fig 9. Chem compt view of Monoethanolamine (Hazards tab)

Multi-select
To enter GHS hazards

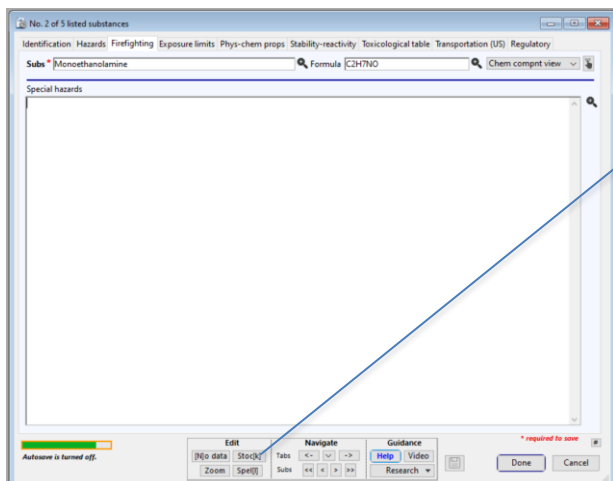
Research
Select resources, such as
C&L Inventory (ECHA)
for harmonized hazard
classifications

SCLs/M-factors
These will be carried into the SDS component section and can be displayed on the SDS



3) Select **Firefighting** tab

- a) Enter **Special hazards**. These are combustion products, which are often carbon oxides, for organic chemicals.



Stoc[k] phrases
Press button on Ctrl+k for stock phrases.

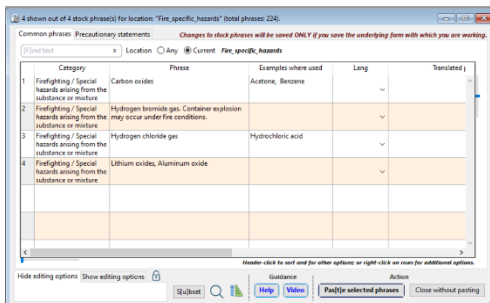


Fig 10. Chem compnt view of Monoethanolamine (Fire Fighting tab)

4) Select **Exposure limits** tab.

- a) Enter the **OSHA** and **ACGIH exposure limits** in the table if there are any

Note: OSHA exposure limits for over 400 chemicals have already been imported into Substance records for you. For additional explanation see [Resources](#).

No.	Chemical	CAS no.	EC no.	Parameter	Expos. route	Value	Source	Country	Target (DNEL only)	Basis or
1	Ethanolamine	141-43-5		PEL	Inhalation	3 ppm	OSHA			OSHA Annotated Table Z-1, www.os
2	Ethanolamine	141-43-5		PEL	Inhalation	6 mg/m3	OSHA			OSHA Annotated Table Z-1, www.os
3	Ethanolamine	141-43-5		PEL	Inhalation	3 ppm, (ST) 6 ppm	Cal/OSHA			OSHA Annotated Table Z-1, www.os
4	Ethanolamine	141-43-5		REL	Inhalation	3 ppm, (ST) 6 ppm	NIOSH			OSHA Annotated Table Z-1, www.os
5	Ethanolamine	141-43-5		TLV®	Inhalation	3 ppm	ACGIH			Eye irritation, Skin irritation
6	Ethanolamine	141-43-5		STEL	Inhalation	6 ppm	ACGIH			Eye irritation, Skin irritation
7	Ethanolamine	141-43-5		TLV®	Inhalation	3 ppm, (ST) 6 ppm	ACGIH	USA		OSHA Annotated Table Z-1, www.os

Zoom text
Click into cell you want to edit, and then on small grey box

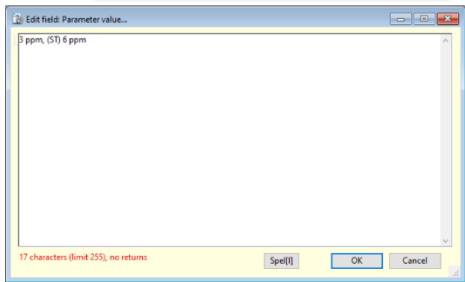


Fig 11. Chem compnt view of Monoethanolamine (Exposure limits tab)

5) Select **Phys-Chem Properties** tab (see Fig. 12)

Enter as much data as you have on the substance:

- a) **State**
- b) **Appearance/form**
- c) **pH**
- d) **Molecular Weight.**
- e) **Melting, Boiling and Flash Point**
- f) **Relative density/Sg.** Type into first cell. The cell to the right will automatically fill in
- g) **Solubilities** (e.g., in water)
- h) **Supplementary info on physical hazard classes (e.g., test results for oxidizing properties)** can be added if available
- i) Etc. Click **Save**

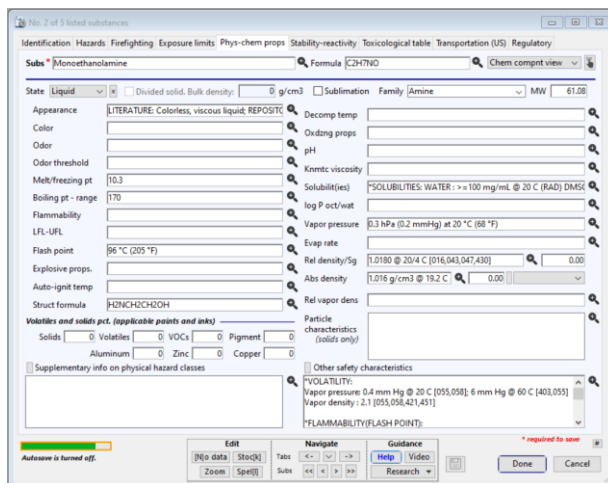


Fig 12. Chem compnt view of Monoethanolamine (Phys-chem props tab)

6) Select **Stability-Reactivity** tab.

- a) Enter **Incompatible materials**
- b) Enter **Hazardous decomposition products**
- c) Click **Save**

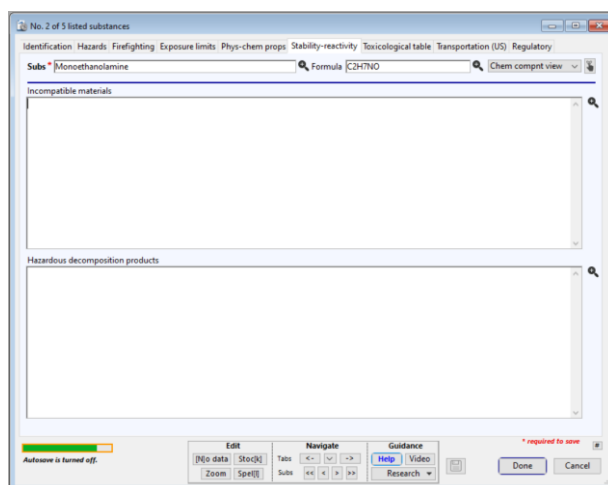


Fig 13. Chem compnt view of Monoethanolamine (Stability-Reactivity tab)

7) Select **Toxicological Table** tab.

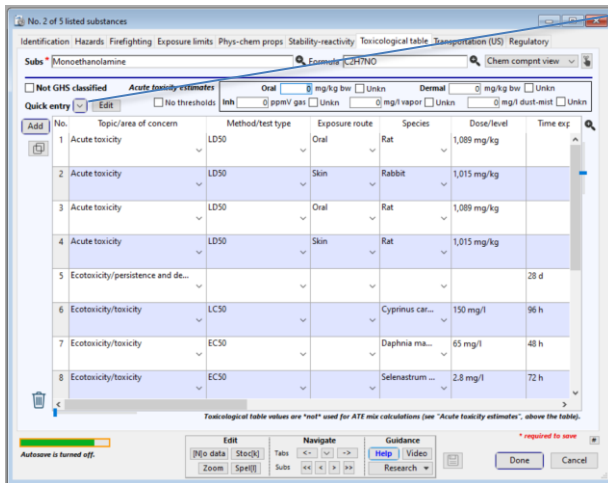
This holds the substance-specific toxicological and ecological information that you can paste into the Sections 11 and 12 of the SDS. Consider using the **Quick entry** feature at the top to complete some fields for you.

Note: For information on toxicological and ecological data sources see [Resources](#).

- Enter **Oral/dermal/inhalation LD50s/LC50s**.
- Enter **Carcinogenicity**.
- Enter **Ecotoxicity, Etc . . .**
- Click **Save**

Quick entry

Select common entries
and add your own.



Quick entry Edit No thresholds Inh ppmV gas Unkn mg/l vapor Unkn mg/l dust-mist Unkn

Add	No.	Topic	Method	Route	Species	Dose	Time	Result	Remarks	Ref
	1	Acute toxicity	Method: LC50	Route: Inhalation	Species: Rat	Dose: blank	Time: blank	Result: blank	Remarks: blank	Ref: blank
	1	Acute toxicity	Method: LD50	Route: Oral	Species: Rat	Dose: blank	Time: blank	Result: blank	Remarks: blank	Ref: blank
	1	Acute toxicity	Method: LD50	Route: Skin	Species: Rat	Dose: blank	Time: blank	Result: blank	Remarks: blank	Ref: blank
	1	Acute toxicity	Method: LD50	Route: Inhalation	Species: Rat	Dose: blank	Time: blank	Result: blank	Remarks: blank	Ref: blank
	1	Acute toxicity	Method: LD50	Route: Skin	Species: Rat	Dose: blank	Time: blank	Result: blank	Remarks: blank	Ref: blank
	2	Ecotoxicity/toxicity	Method: EC50	Route: blank	Species: Daphnia magna (water flea)	Dose: blank	Time: 48 h	Result: blank	Remarks: blank	Ref: blank
	2	Ecotoxicity/toxicity	Method: EC50	Route: blank	Species: Desmodemus subspicatus (chodati)	Dose: blank	Time: 72 h	Result: blank	Remarks: blank	Ref: blank
	2	Ecotoxicity/toxicity	Method: LC50	Route: blank	Species: Lepomis macrochirus (bluegill)	Dose: blank	Time: 96 h	Result: blank	Remarks: blank	Ref: blank
	2	Ecotoxicity/toxicity	Method: LC50	Route: blank	Species: Oncorhynchus mykiss (rainbow trout)	Dose: blank	Time: 96 h	Result: blank	Remarks: blank	Ref: blank

Fig 14. Chem compt view of Monoethanolamine (Toxicological table tab)

When measured/experimentally-derived acute toxicity point values are available, you can now enter them here. The program will use the values when it calculates acute toxicity estimates for the product, in the "Suggestions..." dialog in the safety data sheet.

8) Transportation tab

- a) If the material is not dangerous according to transportation regulations, then check the **Not dangerous goods** box.
- b) If the material is dangerous according to transportation regulations, enter the applicable:
 - i) UN Number
 - ii) Class
 - iii) Packing Group
 - iv) Proper Shipping Name
 - v) Other information required or appropriate to the intended mode of transport:
 - (1) DOT: US Department of Transportation
 - (2) IMDG: International Maritime Dangerous Goods
 - (3) IATA: International Air Transport Association

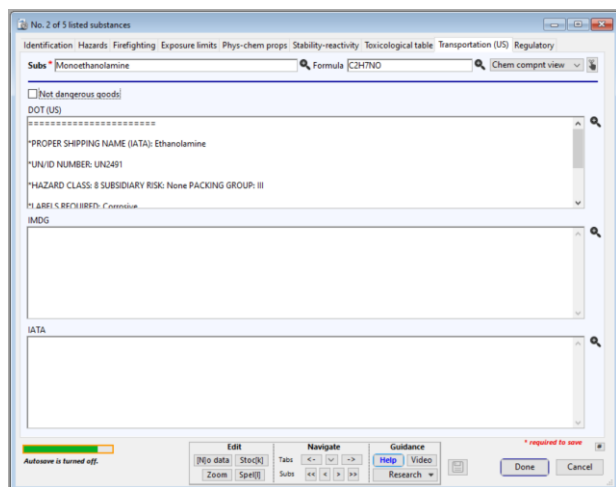


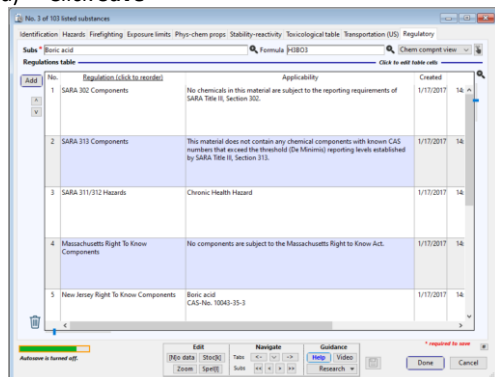
Fig 15. Chem compnt view of Monoethanolamine (Transportation tab)

9) Select Regulatory tab.

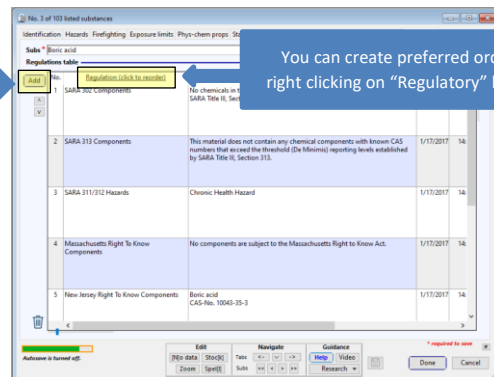
- a) Enter Federal and state regulations/lists.
- b) Make sure format is consistent with CAS-No. first before CAS (e.g., CAS-No. 60-00-4).

1	New Jersey Right To Know Components	Common name: Ethanolamine CAS number: 141-43-5	6/9/201
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- c) Put in preferred sort order by right clicking on **Regulation**.
- d) Click **Save**



Select the applicable regulations from the Add button



You can create preferred order by right clicking on "Regulatory" heading

STEP 3b: Creating a Substance Record of a Mixture - 5 TABS

Select: **Ingred & Prod** view. Tip: reference the safety data sheet for the product.

1) Select the **Identification** tab.

- a) **Subs** (required). Enter the product name
- b) **Product** (optional). If this Substance record represents a product — either yours or something from another company — and you did not already enter a product name in the Subs box, then enter it here.
- c) **No.** (optional). If you use an internal product number for this Substance, you can enter it here.
- d) **Type** (optional). Indicate whether you use the Substance as an ingredient in your products; as a product; or as both an ingredient and a product.
- e) **Cat.** (optional). Use the drop-down menu immediately to the right of the "Cat." button to select the type of Substance, if desired. Examples of categories are: surfactant, solvent, colorant. (The "Cat." button allows you to customize the categories which will appear in the drop-down menu.)
- f) **Validated** (recommended) to keep track of records you have already reviewed and determined to be complete. These records will appear in **blue text**
- g) **Supplier** (visible by selecting **Full view**)

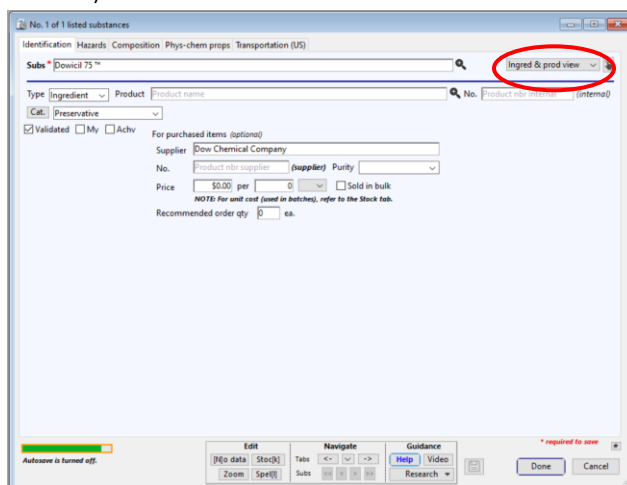


Fig 16. Ingred & prod view of Dowicil 75™ (Identification tab)

2) Select the **Hazards** tab.

- a) Enter **GHS Hazard Classification(s)** for the substance
 - i) If **non-hazardous**, check off the **“Not GHS Classified”**
 - ii) Click on **“Multi-select”** button and select the applicable GHS hazards. Use Ctrl on your keyboard to select multiple.
 - iii) Click on **“Regenerate related items”** button to regenerate related items for the listed hazard classifications.

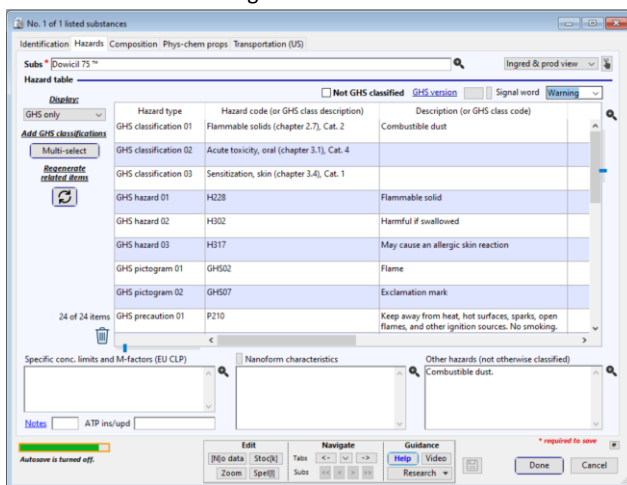


Fig 17. Ingred & prod view of Dowicil 75™ (Hazards tab)

3) Select the **Composition** tab.

a) Enter **Components** for the substance

- i) Click on the [Add] button to add a row, or double-click in the empty area in the table (below any components that are already listed).
- ii) "Slow click" (click once, then again slowly) into the "Chemical (enter CAS, EC or name)" column for the new row, and enter one of the following items:
 - (1) A **chemical name**, like the IUPAC name; OR
 - (2) A **product or trade name**; OR
 - (3) A **chemical synonym**, like the INCI name or the INN name; OR
 - (4) A **Chemical Abstracts Service number (CAS number)**; OR
 - (5) A **European Commission registration number (EC number)**.
- iii) For convenience, you can enter just a few characters at the start of a chemical, product, synonym or other name — you don't need to enter the whole name.
- iv) Click away from the table cell; or use the [Enter] or [Tab] key on your keyboard. This action causes the new cell content to register.
- v) If the program finds one or more matching Substance records, it will present a confirmation dialog for you to select the record.
- vi) If the program prompts you to "add as new", then the component you would like to add could not be found. Ensure that you entered the correct chemical name, CAS number, or other identifier.
- vii) Enter the **minimum** and/or **maximum** concentrations of the component by "slow clicking" into the **Min%** and **Max%** columns, respectively, and entering a percentage value. Use dimensionless weight/weight percentage values only (w/w%); do not use weight/volume values (w/v%).
- viii) "Inequality" symbol columns are available just to the left of the Min% and the Max% columns, if you wish to indicate that the entered concentration value is less than (<), less than or equal (<=), greater than (>), etc. the actual concentration value.
- ix) The **GHS** column of the table will indicate
 - (1) Avail – the substance has been classified as GHS hazardous (i.e., has at least one hazard)
 - (2) No – the substance has been classified as not GHS hazardous (i.e., has no hazards)
 - (3) TBD - the substance has not been classified yet. It is recommended that you review the record and attempt to determine if the substance is GHS hazardous

No.	Chemical (enter CAS, EC or name)	CAS	Type	Categ	GHS	Expos	Regs	Actual%
1	CIS-N-(3-chloroallyl)hexan-1-amine hydrochloride	4080-31-3	Ingredient		Avail		4	0.00
2	Sodium bicarbonate	144-35-8	Ingredient		No		8	0.00
3	Hexamethylenetetramine	100-97-0	Ingredient		Avail		8	0.00
4	Dichloromethane	75-09-2	Ingredient		Avail	3	9	0.00
5	1,3-Dichloropropene	542-75-6	Ingredient		Avail	4	8	0.00

Fig 18. Ingred & prod view of Dowicil 75™ (Composition tab)

4) Select **Phys-Chem Properties** tab

Enter as much data as you have on the substance:

- a) **State**
- b) **Appearance/form**
- c) **pH**
- d) **Melting, Boiling and Flash Point**
- e) **Relative density/Sg.** Type into first cell. The cell to the right will automatically fill in
- f) **Solubilities** (e.g., in water)
- g) Etc. Click **Save**

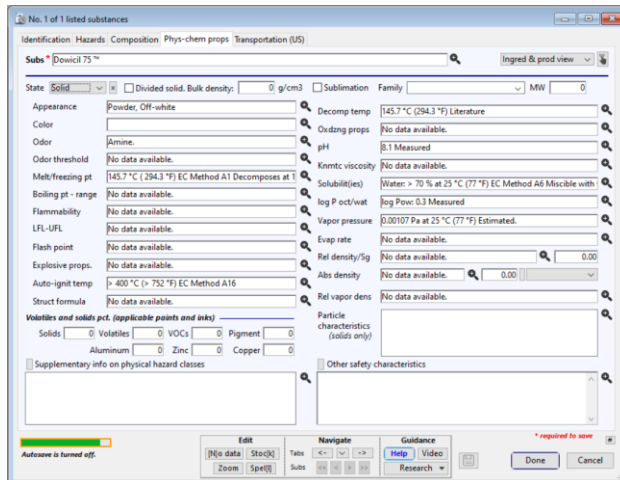


Fig 19. Ingred & prod view of Dowicil 75™ (Phys-chem prop tab)

5) **Transportation** tab

- a) If the material is not dangerous according to transportation regulations, then check the “Not dangerous goods” box.
- b) If the material is dangerous according to transportation regulations, enter the applicable:
 - i) UN Number
 - ii) Class
 - iii) Packing Group
 - iv) Proper Shipping Name
 - v) Other information required or appropriate to the intended mode of transport:
 - (1) DOT: US Department of Transportation
 - (2) IMDG: International Maritime Dangerous Goods
 - (3) IATA: International Air Transport Association

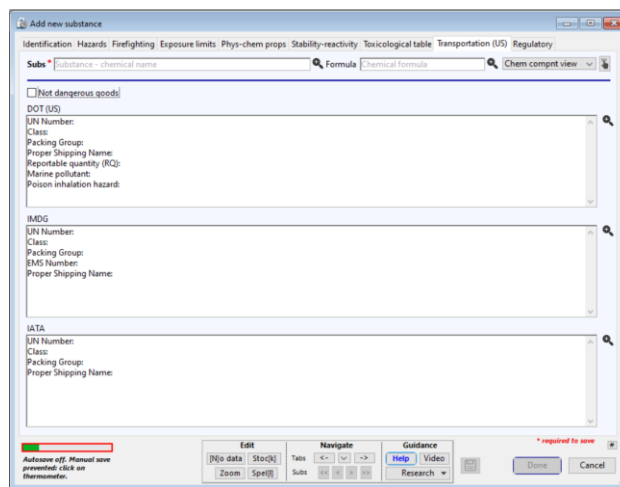


Fig 20. Ingred & prod view (Transportation tab)

STEP 4: Create the SDS using Templates and/or Stock Phrases

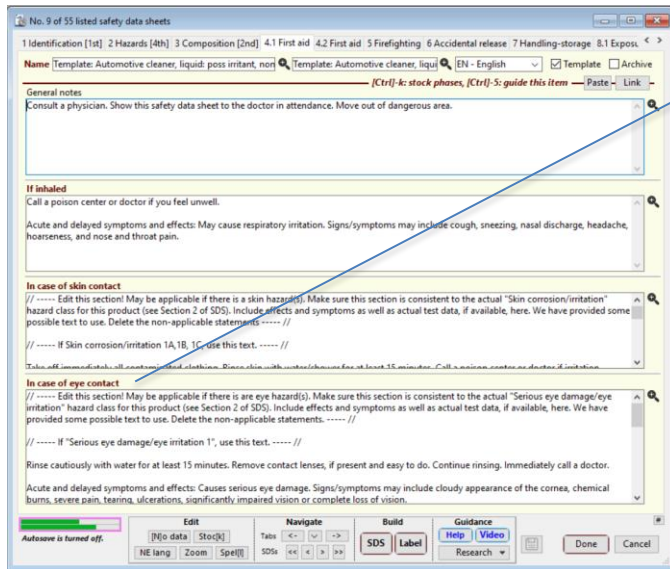
About SDS Templates

You will see a number of red colored rows in the safety data sheet list, when you open SDScribe™ (see Fig 23). These are SDS templates. You can click on the **All [J]** button to reduce the list to SDS templates, SDSs or archived SDSs.



An SDS template is a partially completed SDS for a particular type of product, such as an automotive cleaner, paint, laundry detergent, carpet and fabric cleaner, personal care product, etc. A number of sections, such as First Aid, Exposure controls/personal protection, and Toxicological information will include a variety of statements for you to choose from based on the hazard of the material and other considerations.

In SDS templates you will see double slashes and hyphens (i.e., //----- and -----//) surrounding text, which indicates instructions for you to read and then delete prior to generating the SDS. You will also see sentences to choose from depending on the hazard of the material (e.g., Serious eye damage/eye irritation 1).



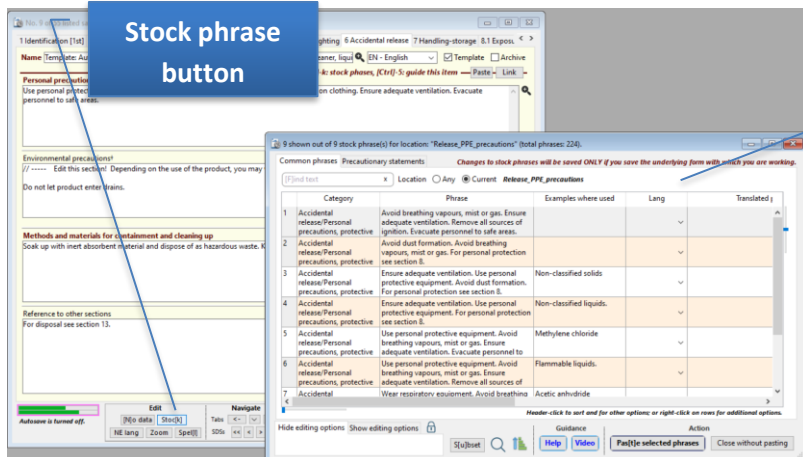
Template
Based on the hazard, Keep the applicable text and delete the other text

In case of eye contact
// ----- Edit this section! May be applicable if there is an eye hazard(s). Make sure this section is consistent to the actual "Serious eye damage/eye irritation" hazard class for this product (see Section 2 of SDS). Include effects and symptoms as well as actual test data, if available, here. We have provided some possible text to use. Delete the non-applicable statements. ----- //
// ----- If "Serious eye damage/eye irritation 1", use this text. ----- //
Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
Acute and delayed symptoms and effects: Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.
// ----- If "Serious eye damage/eye irritation 2, 2A, or 2B" use this text. ----- //
Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/first aid.

Fig 21. An SDS template for automotive cleaner

About Stock Phrases

Stock phrases are phrases for you to choose from specific to the text box topic you are in. Like templates, these are meant to save you time from typing. To open the applicable list, click on the **Stoc[k]** button or **Ctrl + k** on your key board. You can use existing ones and create new ones to the library using the **+** button.



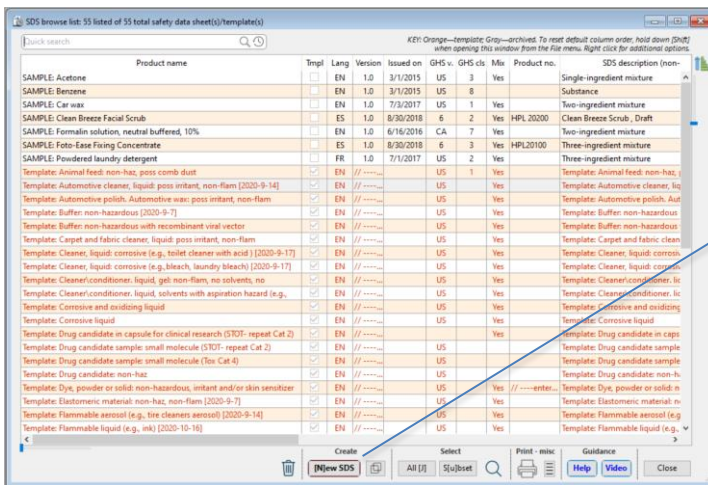
Stock phrases
Lists phrases and examples

Fig 22. Stock phrases

Completing a SDS

Now that you know about SDS templates and stock phrases, let's get to work completing a SDS.

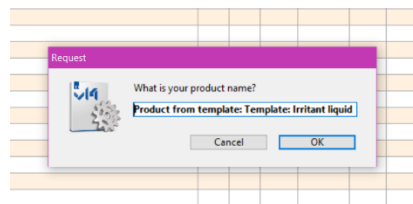
- 1) Click on the **[N]ew SDS** button
- 2) Select either **New blank SDS** or **New SDS from template** (and select a SDS template which best matches the type of product and its hazards)



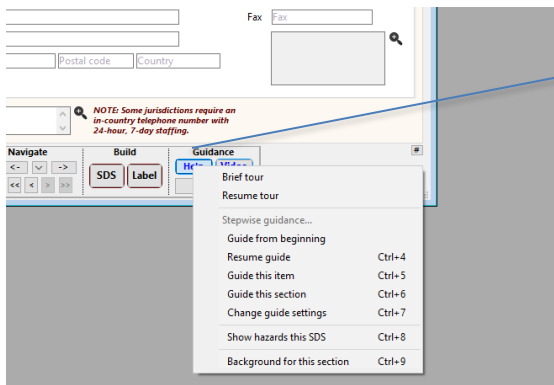
[N]ew SDS
Select a blank SDS or use a template

Fig 23. SDS browse window showing red SDS templates

- 3) Enter the **Product name**



- 4) Novice users should use the **Guide** to tour the product and/or walk them step-by-step in a logical order to complete a SDS.



Guide

- Guided tour through fields and tables in a logical order
- Provides information on each section
- Background on regulatory requirements
- Ctrl-8 : show assigned hazards
-

Fig 21. Guide button with Guide selections, Show hazards, and regulatory Background on each section

- 5) The basic order to complete an SDS is
 - a. **Section 1**
 - b. **Section 3**
 - c. **Section 9**
 - d. **Section 2**
 - e. **Section 4 to Section 16**

6) Add the components in Section 3

- a. Add either chemical components or Raw materials and weight percentages
- b. Ingredients which are mixtures will present the **Formulation wizard**. Enter the concentration of the ingredient in the product. The chemical components will be added and their chemical data carried into the actual SDS.

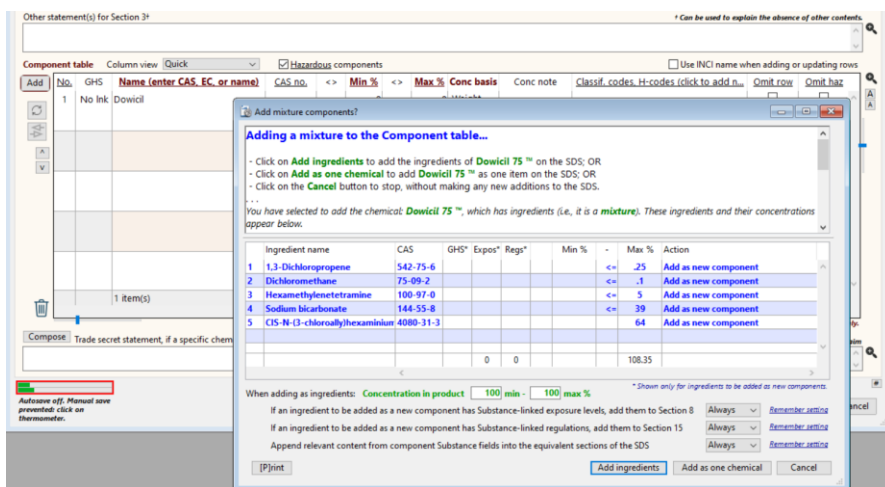


Fig 24. Dowicil 75™ which is a mixture is added using built in Formulator wizard

Add Components

Click in cell or use + button and type CAS,EC or name

Composition view

Select Quick, Custom, Personal Care, etc

Substance records

Right click on component

Fig 25. Composition table of the SDS

Omit row

Use our built-in cutoff tool to help select the components which need to be listed

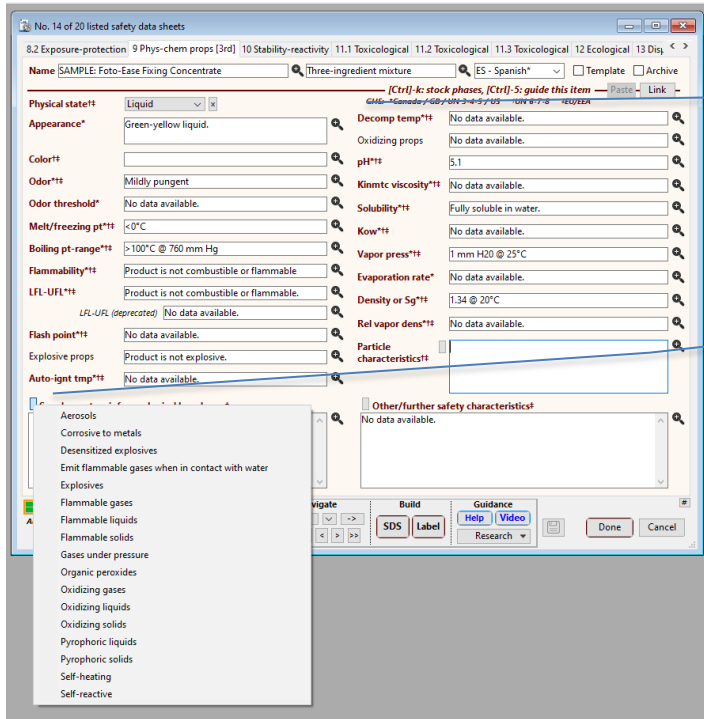
EPA and EU

EPA Safer Choice

EU Cosmetic status

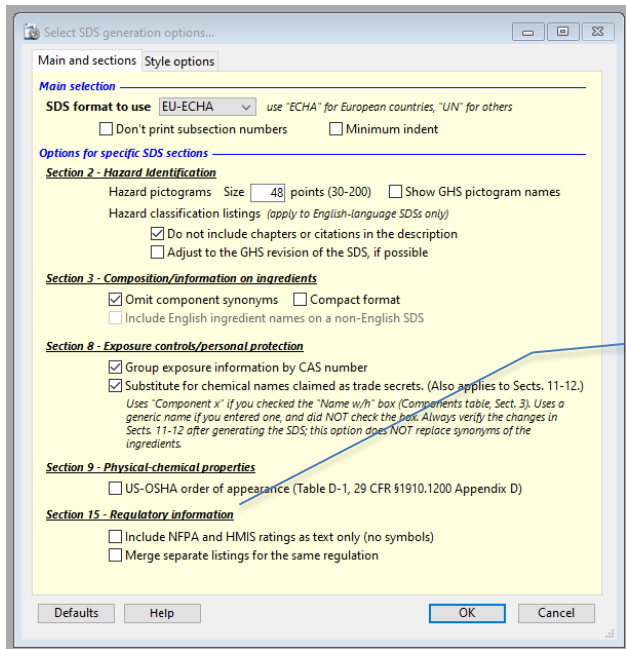
7) Add physical and chemical data in Section 9

- a. Physical state (required for some GHS/UN versions and countries)
- b. Appearance
- c. Odor
- d. Laboratory testing data, if available, such as: relative density, pH, melting point, boiling point, flash point, viscosity, etc.
- e. New: Supplemental info on physical haz classes. A template for EU-suggested content is added
- f. If applicable, physical hazards, such as flammability, oxidizer and explosive will need to be added in Section 2. These are typically based on actual lab tests
- g. When you build the SDS by clicking **SDS** button at bottom, a “Select SDS generation options dialog window gives users option to keep the order of content as US-OSHA order if desired



Applicability
Note that some content is to certain GHS/UN versions and countries.

Supplemental info on physical haz classes
A template for EU-suggested content is added



SDS appearance/order
In Section 9, keep the order of content as US-OSHA order if desired

Suggestion Wizard: Tool for Health Hazard

8) Add GHS hazards in Section 2 / Suggestion Wizard

- a. Select **GHS version** (e.g., US, 4, 5, 6, EU) to present the applicable GHS hazards and statements
- b. If the hazards are known, enter them with either the dropdown or **Multi-select**
- c. Use the **Suggestion Wizard** to suggest health hazards, such as “Acute toxicity, oral 4” or “Eye damage/irritation, 1” based on the hazards of the components and concentration
- d. If applicable, enter any physical hazards, such as Flammable liquid, Cat 3. These should be consistent with physical data entered in Section 9
- e. Use **Regenerate related items** button to regenerate related items for the listed hazard classifications.
- f. Use **Check** to identify inconsistencies in H - and P – statements

Fig 26. Composition table of the SDS

Add Hazards
 Known: Multi-select or dropdown
 Components: Suggestion Wizard or Copy
 Completeness/Quality: Add H/P , Check

Suggestion Report
 Detailed report of the hazards of the components with suggested health hazard

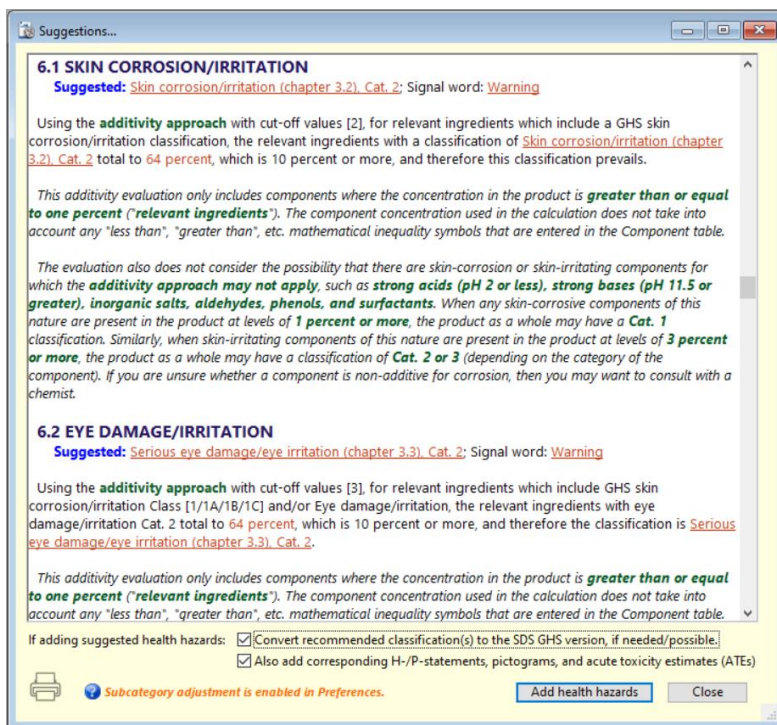


Fig 27a. Suggestion report showing recommended "Skin corrosion/irritation, Cat 2" and "Serious eye damage/irritation, Cat 2"

Acute toxicity determinations

The Suggestion report recommends an acute toxicity classification for a mixture-type product using:

- 1) The **concentrations** of "relevant"^[5] components, from the **Hazard table** on SDS Tab **"3 Composition"**; and
- 2) **Either**:
 - **Point values** from a lookup table, based on the acute toxicity **classifications** for individual components, as entered on the **"Hazards 1"** tab of the linked **Substance** record for the component; or
 - **Measured** toxicity values for the individual components (e.g., LD₅₀, LC₅₀), as entered on the **"Toxicological table"** tab of the linked Substance record

Acute tox. (measured) ¹	Oral	<input type="text" value="5152"/> mg/kg bw	<input type="checkbox"/> Unkn	Dermal	<input type="text" value="0"/> mg/kg bw	<input type="checkbox"/> Unkn
	<input type="checkbox"/> No thresholds	Inh	<input type="text" value="0"/> ppmV gas	<input type="checkbox"/> Unkn	<input type="text" value="0"/> mg/l vap	<input type="checkbox"/> Unkn
					<input type="text" value="0"/> mg/l dust-mist	<input type="checkbox"/> Unkn

Component acute

toxicity measurements (on the "Toxicological table" tab of the linked Substance record).

If measured values are present for a component, the program will use those values in preference to acute toxicity classifications.

The report calculates an **acute toxicity point estimate** for the product as a whole (ATE_{mix}), using one of two equations:

- For components with unknown acute toxicity totaling **less than 10 percent**

$$ATE_{mix} = 100 / \sum (C_i / ATE_i)$$

- For components with unknown acute toxicity totaling **at or above 10 percent**

$$ATE_{mix} = (100 - \sum C_{unknown}) / \sum (C_i / ATE_i)$$

In these equations, **C_i** is the concentration for any individual component. **C_{unknown}** is the concentration of a component with unknown acute toxicity. **ATE_i** is the toxicity point value or experimental measurement for a component. The report performs the calculations **separately** for the different **routes of exposure** (oral, dermal, inhalation of gas, inhalation of vapor, and inhalation of dusts-mists).

Lookup tables then enable the program to identify the appropriate acute toxicity classification for each route of exposure, from the calculated ATE_{mix} values.

Where the Suggestion report has performed acute toxicity calculations of this type, the ATE_{mix} values appear in the summary section at the top of the report. Details of the calculations, including intermediate values, appear further down, in the body of the report.

If the user checks the second box on the "Suggestions..." dialog ("**Also add corresponding H-/P-statements, pictograms, and acute toxicity estimates (ATEs)**"), the program will place the calculated ATE_{mix} values into the **Acute toxicity** field, on the **"11.1 Toxicological"** tab.^[5]

Completing Sections 4- 16

In general, SDS authoring is most time-efficient if you start with an appropriate SDS template. Stock phrases can also be helpful, especially if you have relevant examples. If you start with a blank SDS, you can copy text from a SDS template or even linked components by simply clicking on the “Paste” button (see image below)

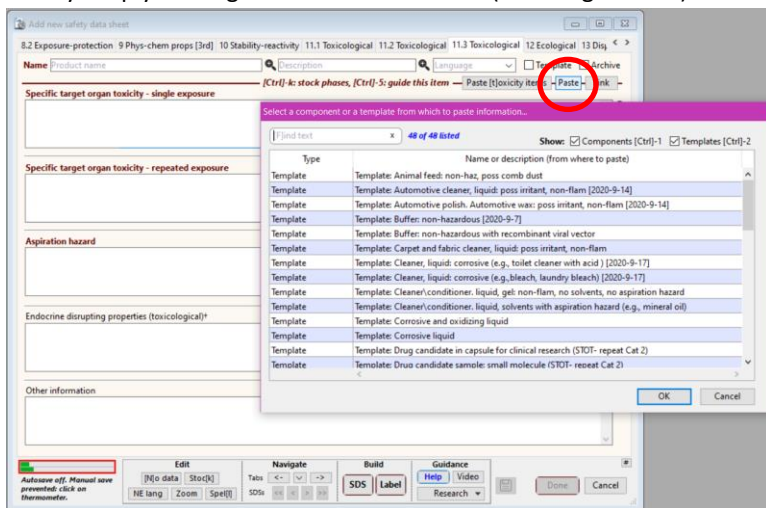


Fig 27b. SDS templates and linked substance records can be accessed by clicking on the Paste button

In addition, it is useful to know that data in Substance records is carried into the SDS or available to be pasted into them as you author the SDS. **This is why we recommend identifying the relevant Substance records and validating them ahead of time as was mentioned previously.** Some additional suggestions relevant to Sections 4-16 are listed below.

9) Section 4 -First Aid

Make sure the first aid is consistent with the P-statements relating to first aid.

10) Section 5 - Fire-fighting measures

As you enter components in Section 3, text in the “Special hazards” box of the linked components will be carried over to save you time.

11) Section 8 - Exposure controls/personal protection

As you enter components in Section 3, exposure limits of the linked components will be carried into the Exposure table of the SDS to save you time. Right click on the “Omit” button above the table to omit exposure limits with the “omit row” checked in Section 3.

No.	Chemical (click to re-order)	Omit	CAS no.	EC no.	Parameter	Exposure route	Value	Source
1	Formaldehyde	<input type="checkbox"/>					0.3 ppm	ACGIH
2	Formaldehyde	<input type="checkbox"/>					0.75 ppm	
3	Formaldehyde	<input type="checkbox"/>					0.016 ppm	NIOSH
4	Formaldehyde	<input type="checkbox"/>	50-00-0	200-001-8	PEL-C	Inhalation	0.1 ppm	NIOSH
5	Methanol	<input type="checkbox"/>	67-56-1	200-659-6	PEL-TWA	Inhalation	200 ppm, 260 mg/m3	OSHA
6	Methanol	<input type="checkbox"/>	67-56-1	200-659-6	PEL-TWA	Inhalation	200 ppm	Cal/O...

Fig 28. Exposure limit table

12) Section 10 - Stability and reactivity

As you enter components in Section 3, text in the “incompatible materials” box of the linked components will be carried over to save you time.

13) Section 11 - Toxicological information

As components are entered in Section 3, their toxicity data will be available to be pasted into the SDS by clicking on the **Paste [t]oxicity button**. Highlight the rows you wish to paste. There is also a slider on the bottom to reduce the selection.

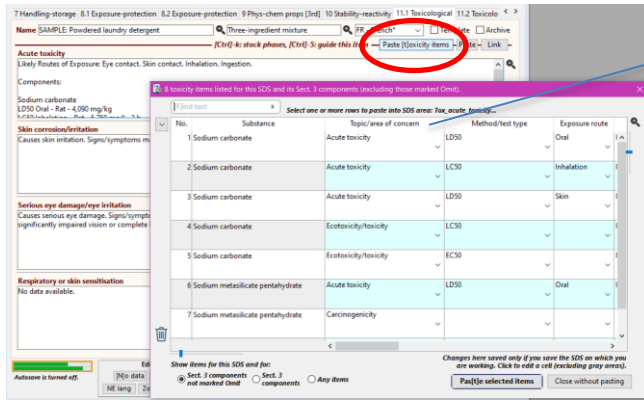


Fig 29. Toxicological tab in the SDS showing the **Paste [t]oxicity button**

Toxicity data

The “Toxicological table” tab of the linked substance record holds the data that will be presented by pressing “Paste [t]oxicity” button

The screenshot shows the 'Toxicological table' tab for Sodium carbonate. It displays a table with columns for 'No.', 'Topic/area of concern', 'Method/test type', 'Exposure route', 'Species', 'Dose/level', and 'Time exp.'. The table contains five rows of toxicity data.

No.	Topic/area of concern	Method/test type	Exposure route	Species	Dose/level	Time exp.
1	Acute toxicity	LD50	Inhalation	Rat	4,000 mg/kg	2 h
2	Acute toxicity	LD50	Skin	Rabbit	>2000 mg/kg	
4	Ecotoxicity/toxicity	LC50		Lepomis ma...	300 mg/l	96 h
5	Ecotoxicity/toxicity	EC50		Daphnia ma...	255 mg/l	48 h

14) Section 12 - Ecological information

Similar to Section 11, as components are entered in Section 3, the ecotoxicity data of the linked components will be available to be pasted into the SDS by clicking on the **Paste [t]oxicity button**.

15) Section 14 - Transportation information

In this section/tab you provide guidance concerning the transportation of the product by road, air, rail, or sea. The focus of this tab is on shipments within the US, but it may be applicable to other jurisdictions.

The screenshot shows the 'Transportation information' tab in the SDS software. It includes sections for DOT (US), IMDG, and IATA, each with a 'Find shipping information' button and a 'Not applicable' status. There are also buttons for 'Show reportable quantity' and 'Marine pollutant list'. The bottom of the window has a navigation bar with buttons for 'Edit', 'Navigate', 'Build', and 'Guidance'.

Shipping suggestions

Uses algorithm to predict shipping hazard classes

Reportable Quantities

US may require this information

Marine Pollutant

EMS Info/ Water/ Vessel

Six GHS classifications are listed, from the "2 Hazards" tab.

Select a physical state (not yet specified on the SDS).

Appearance/Form
 Gas
 Liquid
 Solid
 Melt/freezing pt.
 Flash point

Only show generic entries in the hazmat table (lower list).

Highlighted rows in blue text have equivalents in the hazmat table. Searches on DOT class, PG, and/or DOT type, for highlighted rows.

Search for a DOT hazmat listing independently, without using the GHS classifications in the upper list.

Highlight one row that best describes your product; then click on the Select button. (You can also double click.)

View a web table when more than one hazard classification is listed as an option (only one can be selected).

Shipping suggestions dialog

GHS hazard classifications on this SDS

Select a physical state: Solid Liquid Gas Actual/unspecified n.o.s. only

AVAILABLE: - 6 with DOT options, can be shown below if selected
 SELECTED: - One with DOT options - None without DOT options - You can also find/select DOT options directly in the lower list.

GHS class code	GHS class description	DOT (solid)	DOT (liq)	DOT (gas)	PG (solid)	PG (liq)	DOT type	Note
Flam. Liq. 2	Flammable liquids (C.4.1), Cat. 2	NA	3	NA	II	II	none	none
Skin Irrit. 2	Skin corrosion/irritation (C.4.2), Cat.	none	none	none	none	none	none	Not dangerous
STOT 5.1	Specific target organ toxicity (single	none	none	none	none	none	none	Not dangerous
Asp. Tox. 1	Aspiration hazard (C.4.13), Cat. 1	none	none	none	none	none	none	Not dangerous
Aquatic Acute 1	Hazardous to the aquatic	9	9	none	III	III	none	reference 49 CFR
Aquatic Chronic	Hazardous to the aquatic	9	9	none	III	III	none	reference 49 CFR

US DOT hazmat table

Select one from 22 listed of 3594 total option(s): **More than one option could be acceptable...** [GHS selection]

Sym	Proper shipping name	Class/div	ID nbers	PG	Label codes	Spc provisions	Plg excpnts	kg non-bulk
1 G	Alcoholates solution, n.o.s., in alcohol	3 -	UN1274	II	3, 8 -	IB2	150	202
2 G	Alcohol, flammable, toxic, n.o.s.	3 -	UN1996	II	3, 6.1 -	IB2, T11, TP2,	150	202
3	Alcohol, n.o.s.	3 -	UN1997	II	3 -	I72, IB2, T7, TP1,	150	202
4 G	Aldehydes, flammable, toxic, n.o.s.	3 -	UN1988	II	3, 6.1 -	IB2, T11, TP2,	150	202
5	Aldehydes, n.o.s.	3 -	UN1989	II	3 -	IB2, T7, TP1, TP8,	150	202
6 G	Amines, flammable, corrosive, n.o.s. or	3 -	UN2731	II	3, 8 -	IB2, T11, TP1,	150	202
7	Chloroalkanes, flammable, corrosive,	3 -	UN1985	II	3, 8 -	IB1, T11, TP2,	None	201
8	Esters, n.o.s.	3 -	UN1272	II	3 -	IB2, T7, TP1, TP8,	150	202
9	Ethers, n.o.s.	3 -	UN1272	II	3 -	IB2, T7, TP1, TP8,	150	202

Buttons: Help, Video, Select, Cancel

Shipping suggestions dialog.

16) Section 15 - Regulatory information

As you enter components in Section 3, "Regulations" in the linked components will be carried over to save you time. **Merge** and **Omit** buttons are available to help you edit the text.

17) Section 16 - Other information

You will likely want to include a Disclaimer. You will want to include a version number and issue and print date.

Press the “Build SDS” button

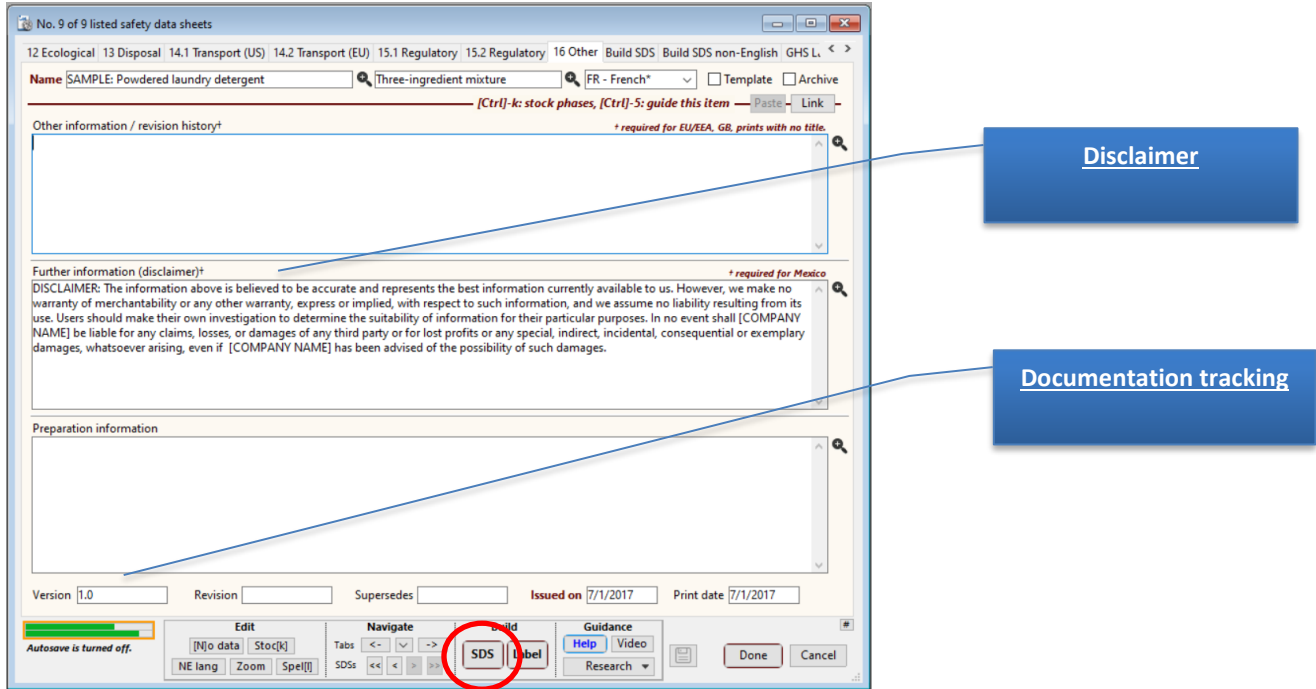


Fig 30. Other tab in the SDS

18) Building the SDS

Pressing the “Build SDS” button presents a yellow SDS formatting dialogue window for changing the format of the SDS, size of the logo, etc

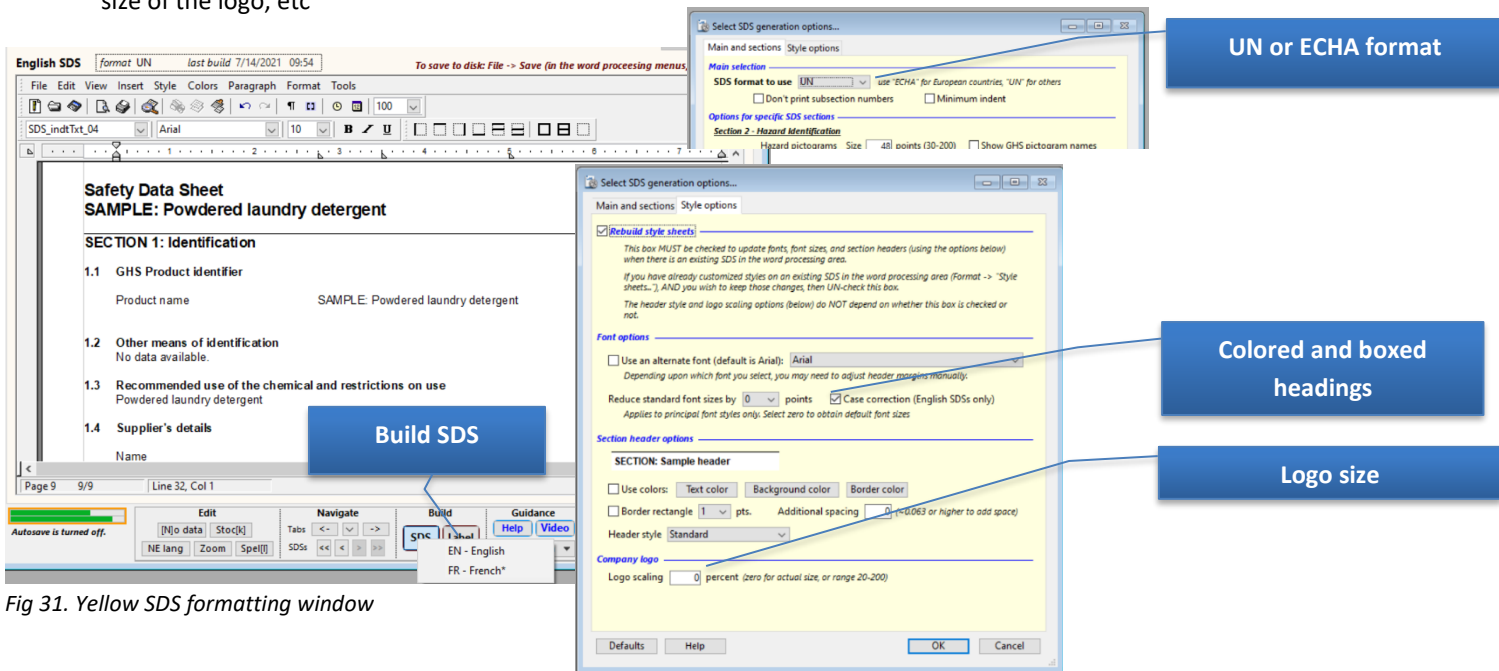


Fig 31. Yellow SDS formatting window

19) Export the SDS

Select **Save As** to save the SDS in a .doc file.

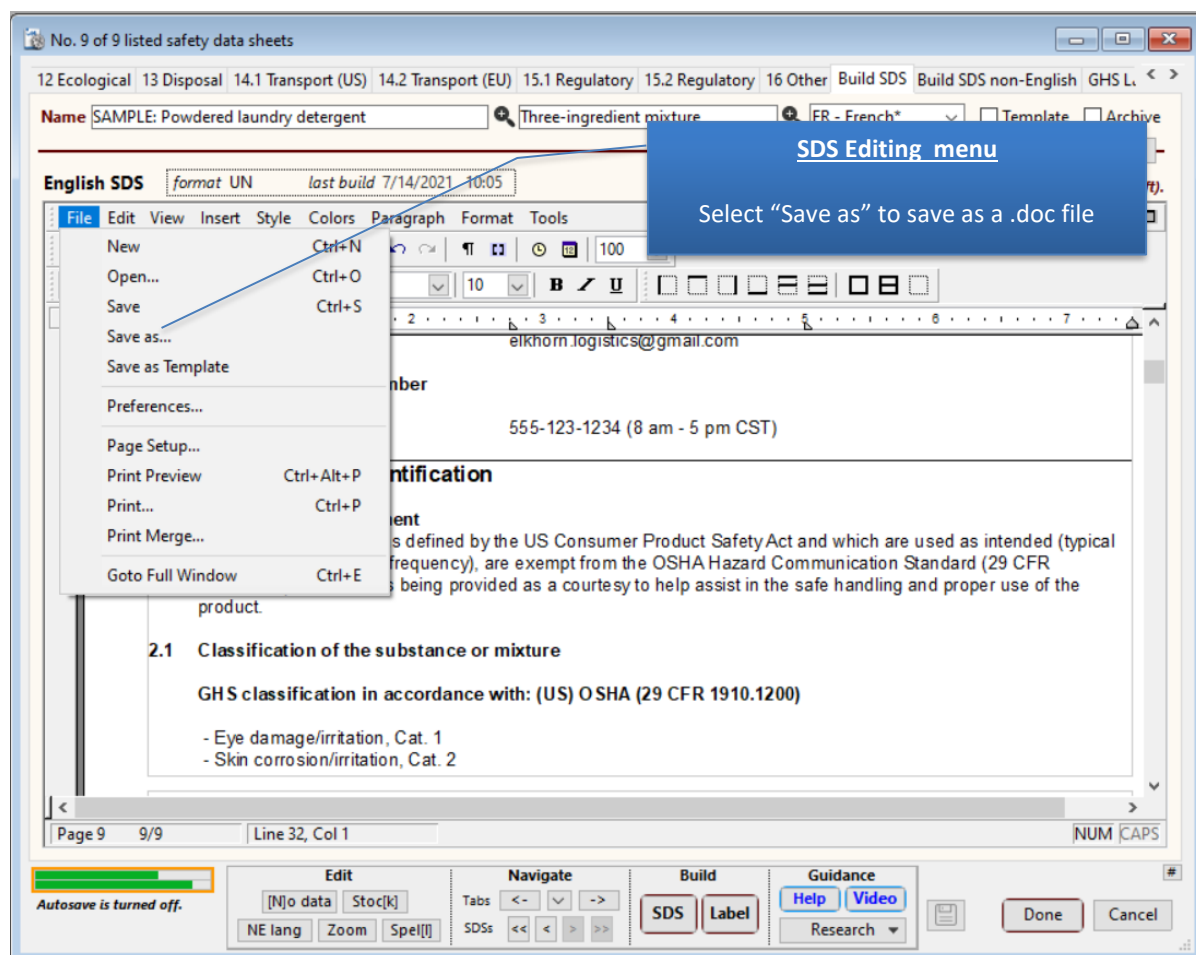


Fig 32. SDS editing and export

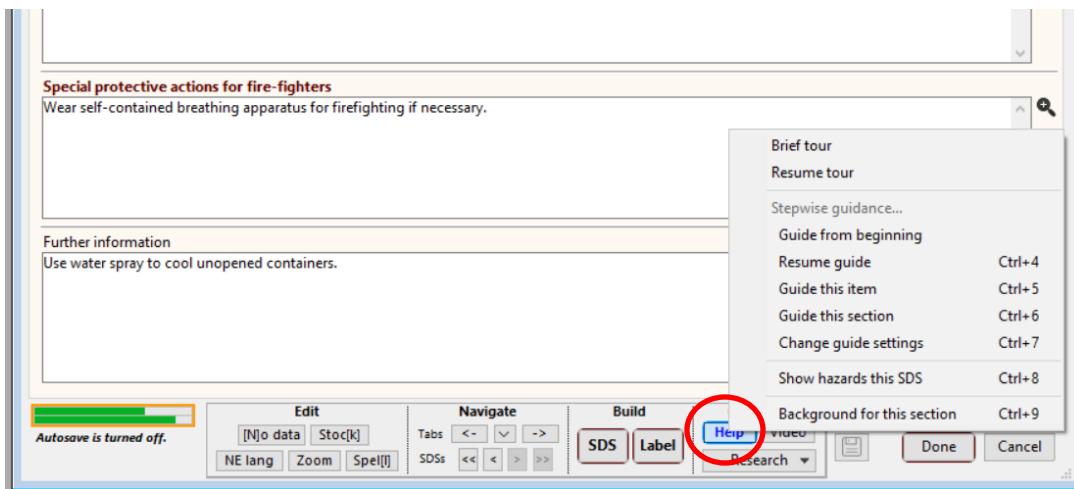
Additional Features of SDScribe

Guide Wizard

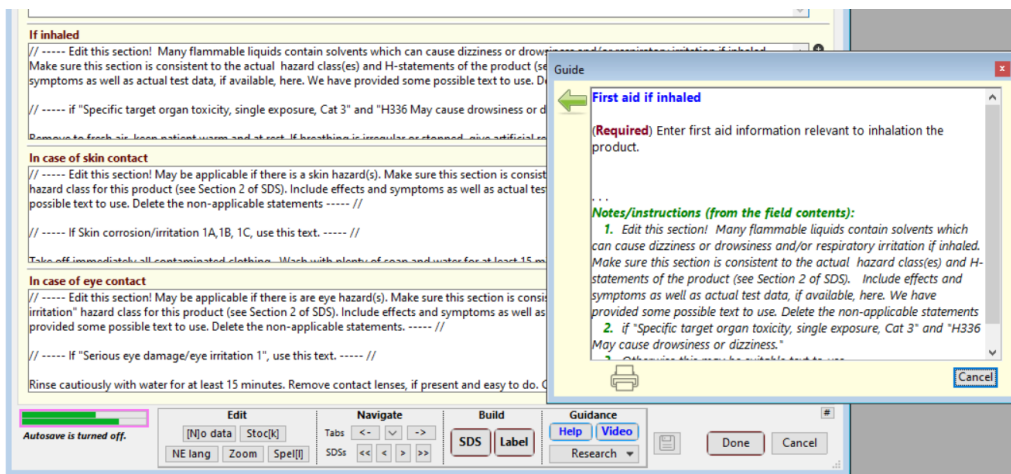
Tip: To obtain assistance as you complete the SDS entry fields, use the **Help** button, which is located at the lower right on the SDS entry form (see figure below).

Clicking on the Help button displays a pop-up menu offering:

- A “Brief tour” item, to familiarize you with the basics of navigation and data entry. The program will offer this tour automatically when you open your first new (blank) SDS. Thereafter you must select "Brief tour" from the Guide button to view the tour.
- A "floating" **guide window (Error! Reference source not found.)** which walks you field-by-field through the SDS entry form, in a logical order for completing the SDS. Select “Guide from beginning”, "Resume guide", or “Guide this section” from the pop-up menu, to display the guide window.

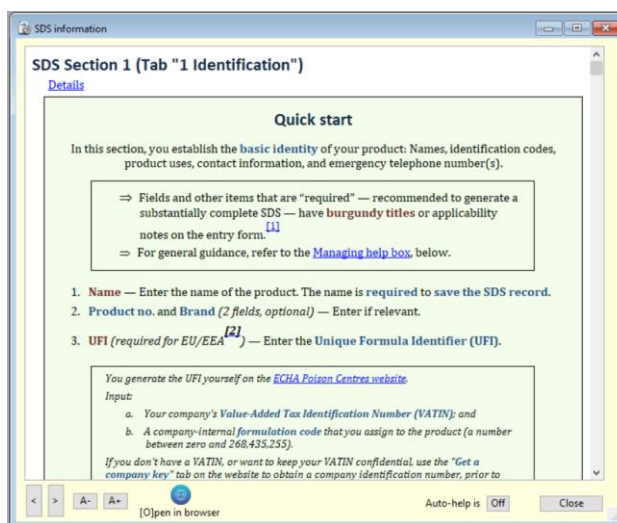


Help button.



Guide window.

- Information on an individual field, by clicking to place the cursor into the field, and then selecting “Guide this item”.
- A “Show hazards this SDS” item, to display the GHS hazard classifications (from SDS Section 2) in a separate window. You can keep this window open as a reminder, while you work on the SDS form.
- A “Background for this section” item, which displays applicable US-OSHA, UN, European Union, and Health Canada guidance, plus program notes for the currently-displayed SDS section (**Error! Reference source not found.**).



Background for this section (from the Guide pop-up menu)

Customizing hazard (H-) and precautionary (P-) statements

Some hazard and precautionary statements include square brackets [.....], ellipsis (...) or slashes (/), which may indicate that the statement(s) need to be completed by the user. Complete these statements in the hazard table with appropriate instructions for your product. For example, you might indicate the proper type of fire extinguisher to use, or what type of medical assistance to seek.

Additionally, you can create one or more custom precautionary statements for each precautionary (P-) code. For example, you might create four or five different “P501” statements, each indicating a different product disposal recommendation. You can use the customized statements in place of standard statements for each of the SDSs that you create.

1. Go to File (menu) -> Customize P-statements. The program will present a dialog with standard P-statements in the upper list (Figure 1).
2. Select the **GHS rev** for the SDS (e.g., “US”) to obtain the correct selection of standard P-statements.
3. If desired, use the “Quick find” code or name boxes to narrow the standard items in the upper list.
4. Double-click; highlight and click the arrow; or click and drag a P-statement into the lower list. Then customize the new P-statement text in the lower list. You can create multiple custom P-statements.

When you have custom precautionary statements, the program will prompt you to select the appropriate one as it adds P-statements to the hazard table.

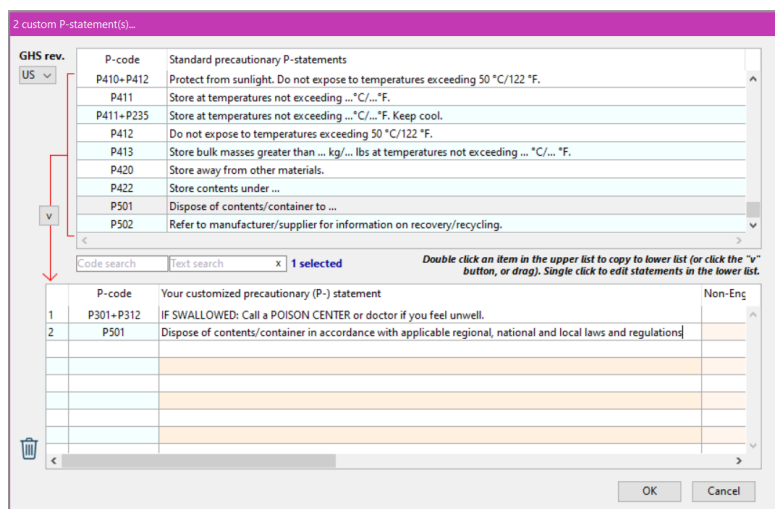


Figure 1: Customize precautionary statements dialog.

Creating labels (end-user GHS and shipping)

To build the text and images for a label:

1. Click on “Label” tab of the SDS data entry form (Figure 34).
2. Enter shipping label information, such as proper shipping name, UN number, hazard class(es), lot number, net weight, expiration date, and up to three DOT-style graphic shipping labels.¹

NOTE: The label names which appear in the “Shipping labels” 1, 2, and 3 drop-down menus represent the file names of labels stored on disk, in the “/SDScribe/Database/Resources/DOT_labels” folder. You can augment or replace these graphical image files as you wish.

¹ Some of these items also can be entered or edited on the “14.1 Transport (US)” and “14.2 Transport (EU)” tabs.

- Click on the “Generate label text” button. The program will generate a label of the type you request in the word processing area, in the lower portion of the form.

This document can be edited in and printed from the word processing area on the form. You can also save the document externally on disk, as a Word (.doc) file.

When you save the SDS record using the **Save** or **Done** buttons, the program will also save the generated label as part of the record.

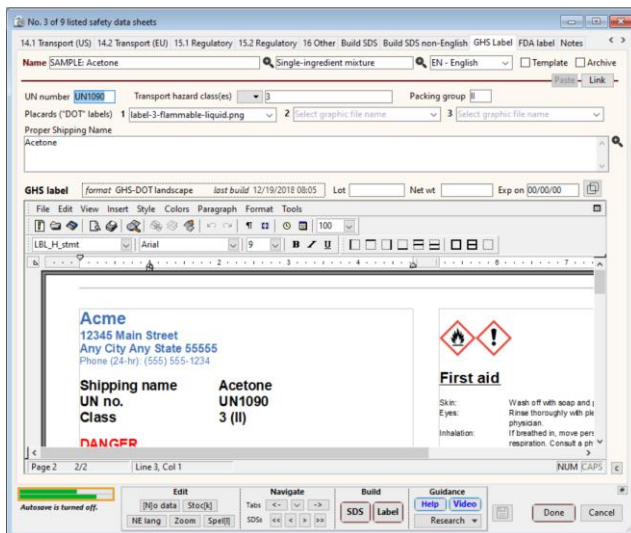


Figure 34: Generated label in the word processing area, "Label" tab of the SDS entry form.

Determining health hazard classifications in products that are mixtures

Evaluations for hazard classifications in products which are mixtures can be a complex task. The evaluations can involve adding the percent concentrations of "relevant" ingredients (present above minimum thresholds, which individually fall into the hazard classification) to determine whether the mixture as a whole also has the same hazard classification. The mixture may fall into a different category (severity) level than some of the ingredients, as well. The table below (found in [OSHA Appendix A TO §1910.1200—Health Hazard Criteria \(Mandatory\)](#)) is an example of evaluating a mixture for the hazard classification Skin corrosion/irritation. In this case, if the concentration of the sum of the ingredients that individually have Category 1 designation is over 5 percent, then the mixture as a whole can be classified as Skin Corrosion Category 1. In this case, extreme pH (acid or alkaline) can also cause the mixture to be classified as Skin Corrosion Category 1.

The **Suggest** button in SDScribe™ performs many of these evaluations for you, so that the recommendations it makes takes ingredient classifications and concentrations (and pH in this case) into account. For these evaluations to work properly, it is important that you enter concentrations into the Components table as accurately as you can.

Table A.2.3: Concentration of ingredients of a mixture classified as skin Category 1 or 2 that would trigger classification of the mixture as hazardous to skin (Category 1 or 2)

Sum of ingredients classified as:	Concentration triggering classification of a mixture as:	
	Skin corrosive	Skin irritant
	Category 1	Category 2
Skin Category 1	≥ 5%	≥ 1% but < 5%
Skin Category 2		≥ 10%
(10 x Skin Category 1) + Skin Category 2		≥ 10%

For more information concerning hazard evaluation (for OSHA), refer to:

[OSHA Appendix A to §1910.1200—Health Hazard Criteria \(Mandatory\)](#)

[OSHA Appendix B to §1910.1200—Physical Criteria \(Mandatory\)](#)

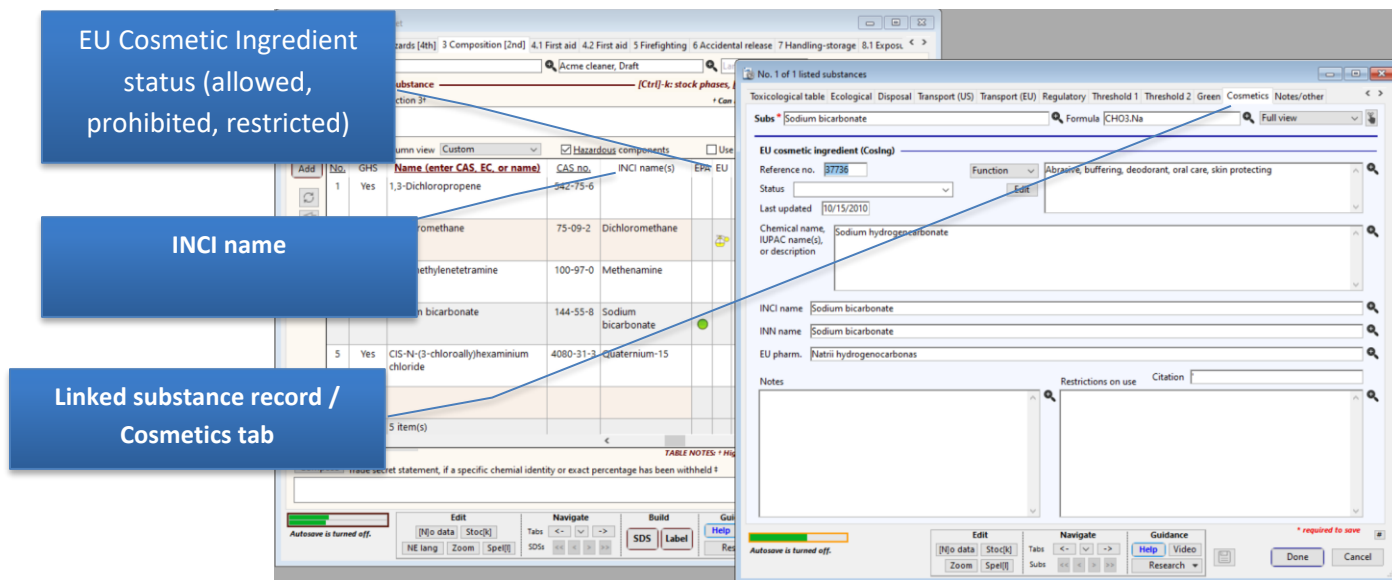
Green Products

EPA Safer choice ratings are found in the Green tab of the Substance record. The EPA rating is also displayed in the SDS components under the EPA column

The screenshot displays the SDS software interface. On the left, a 'Component table' lists ingredients with columns for 'No.', 'GHS', 'Name (enter CAS, EC, or name)', 'CAS no.', 'LC tox info', 'EPA', and 'EU'. The 'EPA' column shows a green circle for Sodium bicarbonate. On the right, the 'Green' tab is active, showing the 'EPA Safer Choice Ingredient' section for Sodium bicarbonate with a 'Rating' of 'Green circle' and a 'Green Seal' below it. Two blue callout boxes with white text are present: 'EPA Safer Choice' pointing to the right-hand window, and 'Linked substance record / Green tab' pointing to the left-hand window.

Cosmetics / Personal Care

Cosmetic ingredient information is found in the Cosmetics tab of the Substance record. The EU Cosmetic Ingredient status (allowed, prohibited, restricted) and INCI name are also displayed in the SDS components under the EU and INCI name column



Inventory and Production Manager

As an affordable add on to SDScribe™, we offer Inventory and Production Manager, a powerful tool for inventorying your raw materials and finished products, preparing batch and recipes sheets, and even purchase orders.

Inventory Features

- In the same software as SDScribe™! Save time not having to install more software.
- Quick inventory maintains part and ingredient (raw material) stock levels for your warehouse.
- Set reorder levels for parts and ingredients, and generate reorder reports.
- Automatically generate multiple purchase orders from parts and ingredients that are below reorder levels, or generate individual purchase orders by selecting parts or ingredients.
- Create production batches that allocate against raw materials stock, and place product into finished goods stock.
- Generate batch sheets (BOMs) for the workers to use during production.
- Calculate per-bottle costs (including parts, ingredients, labor, and markup) of a production run.
- Maintain batch history including lot numbers, task dates/times, spillage, and remarks.

14 listed of 78972 total substances

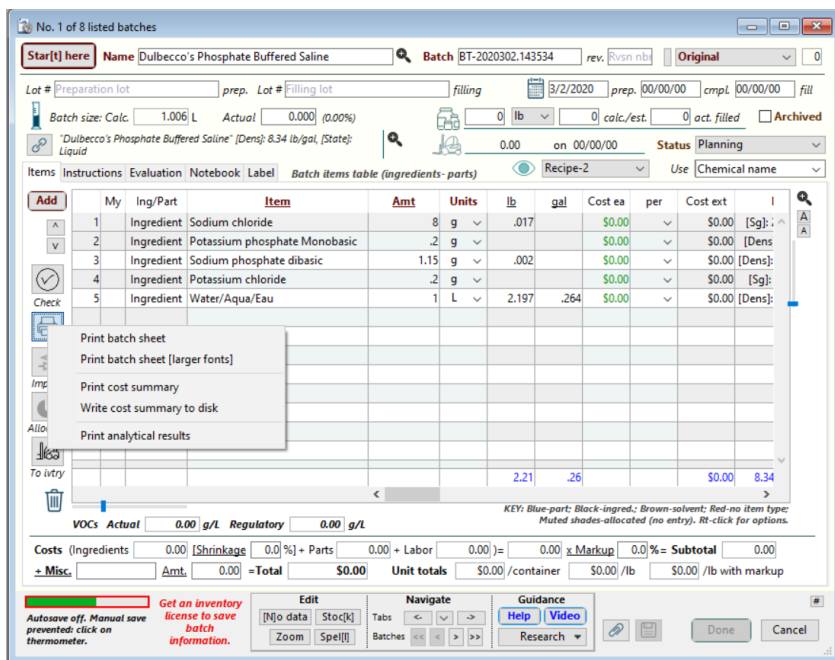
Substance name	Type	CAS	Stocked	On hand	Units	Reorder	New batch	Unit cost	Stk value est	Creat
4-CHLORONITROBENZENE	Ingredient	100-00-5	Stocked	322.009	kg	2,000.000	0.000	\$24.96	\$8,039.34	6/27/2
ALPHA-CYCLODEXTRIN	Ingredient	10016-20-3	Stocked	0.000		0.000	0.000	\$0.00		6/27/2
COBALT SULFATE HEPTAHYDRATE	Ingredient	10026-24-1	Stocked	28.896	kg	0.000	0.000	\$0.00		6/27/2
Dronabinol in sesame oil in soft gelatin capsule	Ingredient	1972-08-3	Stocked	15.898	kg	0.000	0.000	\$32.99	\$524.49	9/23/2
Acephate	Ingredient	30560-19-1	Stocked	20.000	L	30.000	45.000	\$9.85		7/11/2
Hydrocodone & isoquinoline alkaloid 15 mg/du	Ingredient	125-29-1	Stocked	625.000	mg	850.000	0.000	\$0.00		9/23/2
Acetophenone	Ingredient	98-06-2	Stocked	66.000	L	75.000	0.000	\$14.25	\$969.00	7/11/2
Bromophenol blue	Ingredient	115-39-9	Stocked	0.000		0.000	0.000	\$0.00		9/2/20
Bromate	Ingredient	15541-45-4	Stocked	0.000		0.000	0.000	\$0.00		7/11/2
Bromoacetyl bromide	Ingredient	598-21-0	Not stocked	0.000	bbbl	0.000	0.000	\$0.00		9/17/2
Bromo-p-toluic acid, 97%	Ingredient	6232-88-8	Stocked	0.000	fl oz	0.000	0.000	\$0.00		3/24/2
ACETONITRILE WITH 0.1% TFA	Ingredient	75-05-8	Stocked	265.037	ft3	0.000	0.000	\$0.00		4/3/20
Benzoic acid, 2-hydroxy-5-[[[8-hydroxy-3,6-disulfo...	Ingredient	68003-34-9	Stocked	7.000	gal	10.000	0.000	\$3.19		6/4/20
Sulfuric acid	Ingredient	7664-93-9	Stocked	0.000	kg	0.000	0.000	\$22.61		7/12/2
					L					
					lb					
					m3					
					mg					
					ml					
					pt					
					qt					
					ton-l					
					ton-s					
					tonne					
					ug					
					ul					

Stock value [All] [Subset] [Find] [Print] [Return]

Batch and Formula Management

From designing a new formulation to the actual manufacturing and bottling of your product, this very affordable functionality will keep you organized and save you precious time.

1. Create a new batch record. SDScribe™ can make a complete clone a previous batch, create the ingredients from a Substance record, or allow you to create a completely new bill of materials (BOM, or "batch recipe") and instructions.
2. If desired, scale the batch to a different size. SDScribe™ recalculates ingredient amounts and part quantities, in your selected units of measure.
3. Allocate the ingredients and parts needed for the batch against existing inventory. SDScribe™ automatically converts between warehouse stock units and batch units as necessary, and warns when stock levels are insufficient to produce the batch.
4. Print a batch sheet for production workers to follow, logging the ingredient lots, time spent on each task, spillage, and observations.
5. Upon entry of batch sheet information, SDScribe™ calculates batch and per-filled-container costs based on parts and ingredient costs, labor, and an optional percent mark-up. SDScribe™ can also attach a scanned copy of the completed batch sheet.
6. Place the batch product into stock. SDScribe™ converts between batch units of measure and stock units as necessary



Learn more [by going to our website.](#)

Some Resources

GHS Hazard Classification Data for Section 2

The European Chemical Agency (ECHA) maintains a database of the harmonized classification and labeling approved by the European Union. Chemicals can be found by entering the CAS or EC number. Much of the data has been imported into SDScribe Substance records for you.

[ECHA C&L Inventory](#)

Search by CAS or EC

CL Inventory

Notifications submitted/updated by: 14 July 2021

CL Inventory

Names and numerical identifiers

Substance name: Contains

Numerical identifier:

Discriminator:

Classification details

Hazards:

Search operator:

[View all substances](#)

Searched for: '111-30-8'

Name	EC / List no.	CAS no.	Classification	Source
glutaryl glutaraldehyde 1,5-pentanedial 605-022-00-X	203-856-5	111-30-8	Acute Tox. 3 Skin Corr. 1B Skin Sens. 1A Acute Tox. 2 STOT SE 3 Resp. Sens. 1 Aquatic Acute 1 Aquatic Chronic 2	Harmonised C&L

Open the result

Summary of Classification and Labelling

Harmonized classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC / List no. ID	CAS Number	International Chemical Identification
405-022-00-6	203-856-5	110-30-8	General Cyclohexane 1,2-epoxidation

HTP Download / Update: CLP0017000 @
CLP Classification (Table 2)

HS04 Class and Category	Hazard Statement	Hazard Statement	Supplementary Hazard Statement	Pictograms, Signal Word	Specific Concentration Limits, M Factors, Acute Toxicity	Notes
Code(s)	Code(s)	Code(s)	Code(s)	Code(s)	Code(s)	
	H410		EUH071	G0509 G0609 G0709 G0809 G0909 Dp	STOT SE 3; H330; 2 % C < 5 %	
Acute Tox. 3	H302	H332				
Misc. Cont. 1B	H314	H334				
Skin Sens. 1A	H317	H337				
Acute Tox. 2	H302	H332				
STOT SE 3	H335	H335				
Misc. Tox. 1	H373	H373				
Aquatic Acute 1	H400					
Aquatic Chronic 2	H410					

Hazard pictograms: Environment, Health hazard, Corrosion, and GHS09 (Hazardous to the environment).

Exposure Limit Data for Section 8

We recommend entering exposure limits in the linked Substance record for each ingredient (or for the product itself, if the product is not a mixture), prior to entering ingredients in the Components table (SDS Section 3). Then, when you add the ingredients to the Components table, the program will offer to copy these limits from the linked Substance to Section 8.

Some sources of exposure limit data:

NOTE: Web addresses change over time, and you may need to perform a web search if the link is broken.

Occupational exposure limit references

Occupational exposure limits (OELs) are intended for the protection of healthy workers; they are not intended to apply to the general public, which can include sensitive populations such as infants, the elderly, or the infirm. OELs are based on repeated daily exposures over a working lifetime. They are normally averaged over an 8-hour workday and serve to protect against acute and chronic health effects.

The screenshot shows the 'Exposure limits table' interface with a table of Cyclohexane exposure limits. A dropdown menu is open, listing various limit types. Callout boxes on the right identify the sources for these limits:

- OSHA and Cal/OSHA:** PEL-C (ceiling), PEL-ST (short term), PEL-TWA (time weighted)
- NIOSH:** REL-C (ceiling), REL-ST (short term), REL-TWA (time weighted)
- ACGIH:** TLV®

No.	Chemical (click to re-order)	Omit	CAS no.	EC no.	Parameter	Exposure route	Value	Source
1	Cyclohexane	<input type="checkbox"/>	110-82-7		PEL	Inhalation	300 ppm	OSHA
2	Cyclohexane	<input type="checkbox"/>	110-82-7		PEL	Inhalation	1050 mg/m3	OSHA
3	Cyclohexane	<input type="checkbox"/>	110-82-7		PEL	Inhalation	300 ppm	Cal/O...
4	Cyclohexane	<input type="checkbox"/>	110-82-7		REL	Inhalation	300 ppm	NIOSH

Dropdown menu items: BEI® - blood, BEI® - urine, CEV, CLV, DNEL, IDLH, IOELV, Limit val - 8 hr, Limit val - ST, PEL-C, PEL-ST, PEL-TWA, PNEC, REL-C, REL-Ca, REL-ST, REL-TWA, ST, STEL, STEV, TLV®, TWA, TWAEV, WEL.

- [OSHA Table Z-1-Limits for Air Contaminants](#)
 - The units associated with the limits are either parts per million (ppm) or milligrams per cubic meter (mg/m³).
 - Also refer to Tables Z-2 and Z-3, for contaminants for which OSHA has "stayed" the limits under certain circumstances.
- [OSHA Annotated Table Z-1](#)
 - Includes both regulatory (mandatory) and recommended limits.
 - Consult the footnotes at the end of the table.
 - SDScribe™ already contains the limits in Table Z-1
- ACGIH "[Threshold Limit Values \(TLVs®\) and Biological Exposure Indices \(BEIs®\)](#)"
 - These values are exposure limit recommendations from the American Conference of Governmental and Industrial Hygienists (ACGIH); they are not legally-binding standards.
 - They include time-weighted averages (TWAs), short-term exposure limits (STELs), and biological exposure indices (BEIs).
 - These data are available for purchase from ACGIH.
- ACGIH "[Workplace Environmental Exposure Levels \(WEELs\)®](#)"
- NIOSH "[RELs and IDLHs](#)"
- [EU Occupational Exposure Limits \(EH40/2005\)](#)
- [EU GESTIS DNEL Database](#)
 - For the registration of substances in the EU, manufacturers or importers must quote assessment benchmarks on which they base recommended protective measures. Among these assessment yardsticks are Derived No-Effect Levels (DNELs).
 - GESTIS is also a very good source for additional properties of SDS ingredients (for example, physical properties, toxicology and ecotoxicology). It includes source citations.
 - Includes German Occupational Exposure Limits.
- [GESTIS International Limit Values Database](#)
 - Contains occupational limit values for almost 1800 substances.
 - Gathered from various EU member states, Australia, Canada (Ontario and Québec), Japan, New Zealand, Singapore, South Korea, Switzerland, The People's Republic of China, and the United States.

Substance	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m³	ppm	mg/m³
Acetic acid CAS No. 64-19-7				
Australia	10	25	15	37
Austria	10	25	20	50
Belgium	10	25	15	38
Canada - Ontario	10	25	15	37
Canada - Quebec	10	25	15	37
Denmark	10	25	20	50
European Union	10	25		
France			10	25
Germany (AGG)	10	25	20 (1)	50 (1)
Germany (DFG)	10	25	20	50
Hungary		25		25
Ireland	10	25	15 (1)	37 (1)
Italy	10	25		
Japan				
Latvia	10	25		
New Zealand	10	25	18	37
People's Republic of China			10	20 (1)
Poland		15		30
Singapore	10	25	15	37
South Korea	10	25	18	37
Spain	10	25	15	37
Sweden	5	13	10 (1)	25 (1)
Switzerland	10	25	20	50
The Netherlands				
USA - NIOSH	10	25	15 (1)	37 (1)
USA - OSHA	10	25		

GESTIS DNEL database, alphabetical listing of substances.

- [GESTIS Substance Database](#)
- [Workplace exposure standards for airborne contaminants - Safe Work Australia](#)
- [NITE Chemical Risk Information Platform \(NITE-CHRIP\), Japan](#)

Toxicological and Ecological Data for Section 11 and 12

- Manufacturers SDS
- [TOXNET](#) (U.S. National Library of Medicine), is a resource for searching databases on toxicology, hazardous chemicals, environmental health, and toxic releases
- [REACH Registration Dossier](#) –Includes Section 11 and 12 data, including Toxicological and Ecological as well as environmental fate data

Data from Dossier

Environmental fate
Ecotoxicological
Toxicological

Sodium acetate

EC number: 204-823-8 | CAS number: 127-09-3

General information

- Classification & Labelling & PBT assessment
- Manufacture, use & exposure
- Physical & Chemical properties
- Environmental fate & pathways
- Ecotoxicological information
- Toxicological information
- Analytical methods
- Guidance on safe use
- Assessment reports
- Reference substances

- Substance Identity
- Administrative Information

Substance identity

Identification Type of substance Substance identifiers Compositions

Identification

CC(=O)[O-].[Na+]

Display Name:	Sodium acetate
EC Number:	204-823-8
EC Name:	Sodium acetate
CAS Number:	127-09-3
Molecular formula:	C2H4O2.Na
IUPAC Name:	sodium acetate

Type of Substance

Composition: mono-constituent substance

Origin: other: Carboxylic acid, salt

Substance identifiers

open all close all

- EC number
- 204-823-8
- CAS number

- The [OECD Guidelines for the Testing of Chemicals](#) is a collection of about 150 of the most relevant methods for testing health effects. Governments, industry and independent laboratories use the methods to identify and characterize potential hazards of chemicals.

Page 36 of 36

version 7/14/2021