

## **Allocation of Variables**

**Options for the Manual/Automatic Entry of  
Variables contained in H-, P- and SDS Phrases**

# Introduction

- ▶ Legislation provides a number of Precautionary statements and Safety Phrases, requiring the output of variable data (words /numbers). This is also the situation with SDS Phrases.
- ▶ This leads to great difficulty in the automation of the creation of SDSs as such variables need to be chosen for each substance.
- ▶ We have implemented various functions in order to facilitate automation and expedite the SDS generation process for our customers.
- ▶ This guidance document will show the processes for dealing with these variables.

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Via email to [info@dr-software.com](mailto:info@dr-software.com)**

## Explanation of Variable Markers

The “missing“ variables are represented by two types of variable markers:

\$ or ...

P-Statements or S-Phrases will always have only one variable marker.

In SDS Phrases, it is possible to have up to 3 variable markers.

None of the extant SDS Phrases contain any of these markers, but it is possible to enter them for extant or newly created phrases.

*Special Product Phrases* also utilize such markers, but these variables are automatically filled in by ChemGes, as needed.

Keep wetted with...

Keep contents under ... (appropriate liquid to be specified by the manufacturer).

Temperature for storage not to exceed \$ C.

# Variable Allocation using Flags

a. Generate a Flag  **Maintenance programs – Various tables – Flags:**  
Press [Insert] **Creation of new flag** and define the desired Flag.

*Example – Creation of Flag “Internal Storage Code”*

**Note:**

These texts are not translated.

Abbr.	Flag description	Type	Possible contents
CLP3	CLP 3. ATP	∞	CLP 3
ISC	Internal Storage Code	∞	123/456/789
2	Mineralölhaltig	∞	No limitations
1	Mineralölhaltige + EP	∞	No limitations
3	parfümiert	∞	No limitations
4	pH Wert	∞	No limitations

[Esc] Exit [Insert] Creation of new flag [1-6] Selection  
[Ctrl+A-Z,1-9,0] Search

Flag   Type: No restrictions for the selection

Note that if you change allowed values, you may lose already entered flags.

Max. 1 value allowed for the selection   
Yes/no   
Activated

123		
456		
789		

b. Allocate the Flag to a substance:

**Note:**

You can create a new Flag or manage an existing one, directly from the Flag screen in the Substance entry.

Maintenance of preparations (51.1.13)

Preparation: 1,000 Resin solution X 50  
Product code: 1234567890  
Variant: Basic substance selected - 2 variants created

Flags: [ISC] Internal Storage Code

Article group: [ ]

State: liquid  
Flash point: 25 °C  
Boiling point: 77 °C  
Density: [ ]  
pH value: [ ]  
Viscosity: at 20° [ ] mPas  
at 40° [ ] mm<sup>2</sup>/s  
Water miscible/water soluble:

F3 Further physical values  
F7 Self-defined physical/chemical data

Alt+6 Transport Auto

ADR: [ ]  
ADR Code: F1, PG: III, UN: 1866  
DOT: [ ]  
PG: III, UN: 1866  
IMDG: [ ]  
PG: III, UN: 1866, EmS: F-E, S-E  
IATA: [ ]  
PG: III, UN: 1866  
DPD:  Xn  N; R10-36/38-43-48/20-51/53-63-65-67;  
NFPA: [ ]

F2 Formulation Ctrl F2 Breakdown of formulation  
Page 1 Quotients Ctrl L Substance listings  
Ctrl T Tox values Alt+5 Country specific values

[F8] SDS [F6] Label [F5] Internal Plant Instruction

Creation: [ ] Last alteration: 07/27/2020 Last classification: 08/13/2020  
[Alt F1] Memo

# Variable Allocation using Physical/Chemical Values

c. Create a new Physical/Chemical Value for your substance.

**Raw Materials:** Access the *Additional Physical-/Chemical Values* screen from the *Maintenance of raw materials*. via F3 *Additional physical values*.

**Preparations:** Access the *Additional Physical-/Chemical Values* screen from the *Maintenance of preparations* via F7 *Self-defined physical/chemical data*.

**Value:**

Enter the *Description*, *Unit* and if desired the *SDS-heading*.

Input of definition of value

File Edit Help (51.1.13)

<sup>1</sup> Description

<sup>2</sup> Unit  (Default value)

<sup>3</sup> SDS-heading

<sup>4</sup> Output of table with values of all ingredients  <sup>5</sup> From  %

<sup>6</sup> Only substances that are also shown in section 3

<sup>7</sup> If available, also output the value of the preparation

[Esc] Exit [Alt Delete] Delete

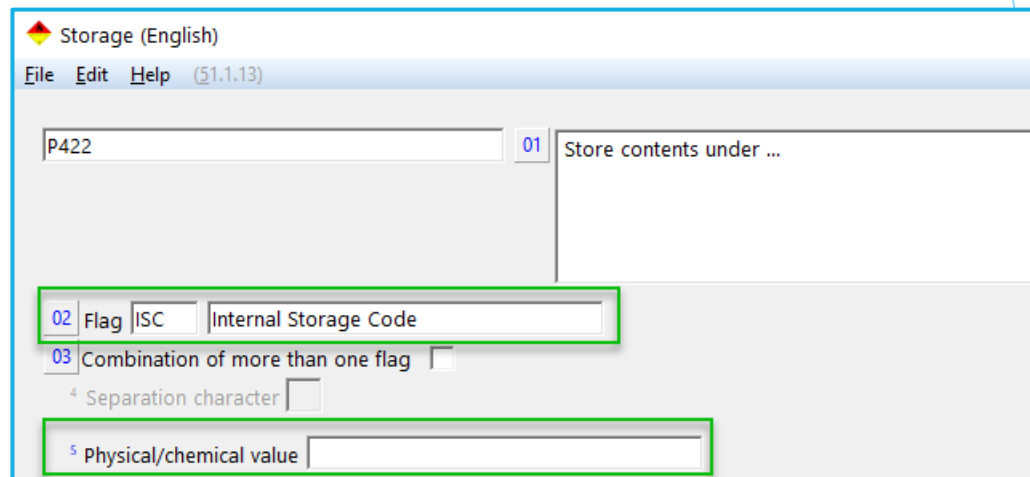
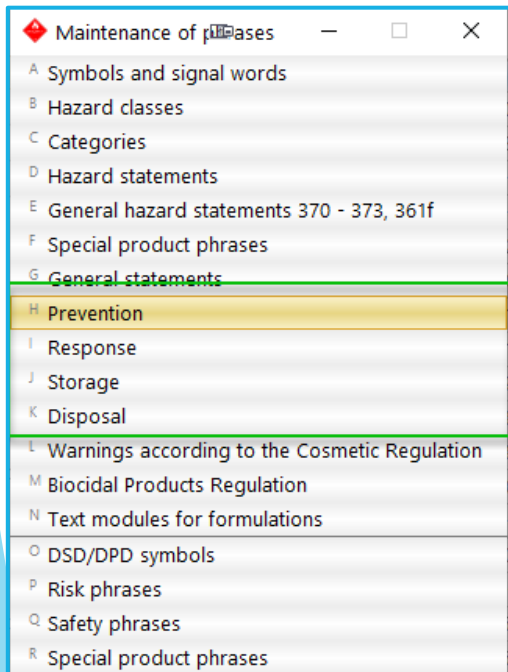
#### d. Allocate the Flag or Physical/Chemical Value to a Phrase

Access the phrases via **Ctrl 4** *Maintenance programs – Phrases.*

Select the desired phrase grouping (*Prevention, Response, Storage, Disposal*) and enter the phrase number.

Enter the phrase number or search the *overview* via **Page ↓**.

Input the appropriate **Flag** or **Physical/chemical value** in the corresponding fields.



## Example of output of one flag

The screenshot shows the 'Storage (English)' application window. The 'Flag' field is set to 'ISC' and is highlighted with a green box. The 'Internal Storage Code' field is empty. The 'Combination of more than one flag' checkbox is unchecked. The 'Separation character' checkbox is unchecked. The 'Physical/chemical value' field is empty. The output text 'P422 Store contents under ...' is shown in a separate box.

### Note:

When automatically output, the variable appears in **green** in the editing screen of the SDS.

P422 Store contents under 123

## Example of output of combination of flags with separation character

P422 Store contents under 123-456-789

The screenshot shows the 'Storage (English)' application window. The 'Flag' field is set to 'ISC' and is highlighted with a green box. The 'Internal Storage Code' field is empty. The 'Combination of more than one flag' checkbox is checked. The 'Separation character' field is set to '-' and is highlighted with a green box. The 'Physical/chemical value' field is empty. The output text 'P422 Store contents under ...' is shown in a separate box.

P411 Store at temperatures not exceeding 25°C.



If you enter the unit of the Physical/Chemical Value, then that will also be output as part of the variable.

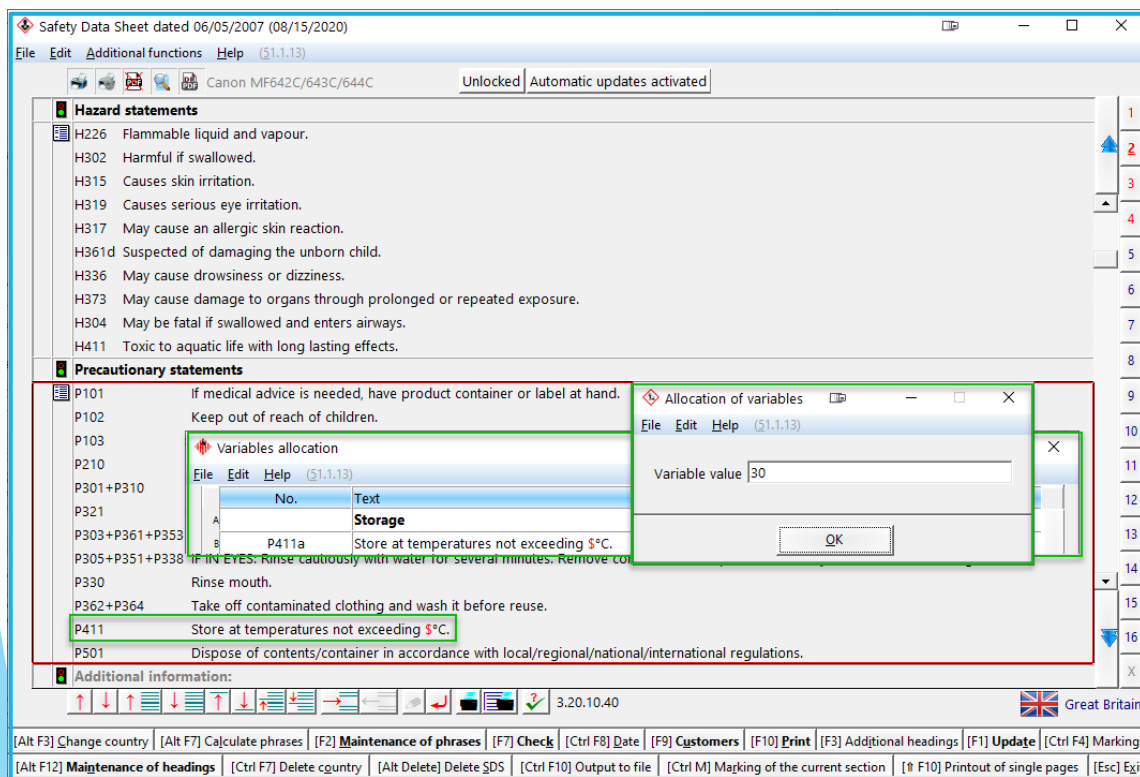
P411 Store at temperatures not exceeding 25 C°C.

## Example of output of physical-/chemical characteristic

The screenshot shows the 'Storage (English)' application window. The 'Physical/chemical value' field is set to 'Storage Temperature' and is highlighted with a green box. The 'Flag' field is empty. The 'Internal Storage Code' field is empty. The 'Combination of more than one flag' checkbox is unchecked. The 'Separation character' checkbox is unchecked. The output text 'P411 Store at temperatures not exceeding \$ °C/\$ °F.' is shown in a separate box.

# Manual Entry (If none of the other options applies)

1. Place the cursor (red frame) around the phrase, by clicking on it.
2. Press  *Enter*.
3. Choose the phrase and press  *Enter*, again
4. Enter the desired variable text.



The screenshot shows a software window titled "Safety Data Sheet dated 06/05/2007 (08/15/2020)". The interface includes a menu bar (File, Edit, Additional functions, Help) and a toolbar. The main content area is divided into sections: "Hazard statements" (listing H226, H302, H315, H319, H317, H361d, H336, H373, H304, H411) and "Precautionary statements" (listing P101, P102, P103, P210, P301+P310, P321, P303+P361+P353, P305+P351+P338, P330, P362+P364, P411, P501). A red box highlights the P411 statement: "Store at temperatures not exceeding \$°C.". A dialog box titled "Variables allocation" is open, showing a table with columns "No." and "Text". The row "P411a" is selected, and the "Text" column contains "Store at temperatures not exceeding \$°C.". A second dialog box, "Allocation of variables", is also open, showing a "Variable value" field with "30" entered and an "OK" button. The status bar at the bottom displays "3.20.10.4d" and "Great Britain".

## Note:

When manually output, the variable appears in blue in the editing screen of the SDS.

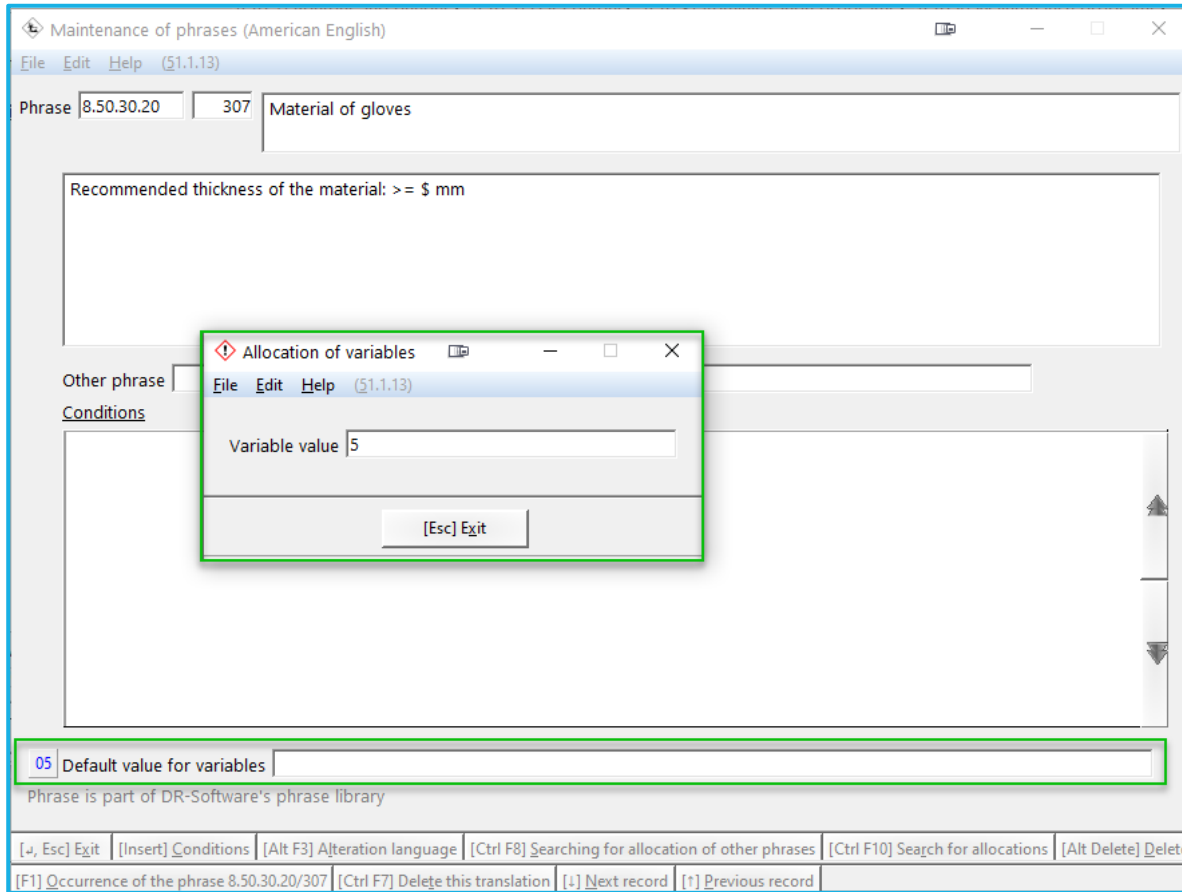
P411 Store at temperatures not exceeding 30°C.

*P411 Store at temperatures not exceeding 30°C.*



# Default Variable Allocation for SDS-Phrases

1. Go to **Ctrl 4** **Maintenance programs – Safety Data Sheets – Text Modules**. Here either select an existing phrase or create a new phrase.
2. Enter the variable marking \$, in the desired position, if necessary.
3. Enter the desired variable in the field **Default value for variables**.



## Note:

This variable appears in blue in the editing screen of the SDS.

By selecting the phrase, the text can be manually altered in the editing screen of the SDS.

This manually altered text will not be automatically overwritten.

✔ **Material of gloves**

☰ Recommended thickness of the material: >= 5 mm

# Flag and/or Physical/Chemical Value Allocation for SDS Phrases

1. Go to **Ctrl 4** **Maintenance programs – Safety Data Sheets – Text Modules**. Here either select an existing phrase or create a new phrase.
2. Enter the variable marking \$, in the desired position, if necessary.
3. Click **[Insert] Conditions** and select the condition

Maintenance of phrases (American English)

File Edit Help (51.1.13)

Phrase 7.30.10 41 Precautions for safe handling

1 Temperature for storage not to exceed (Storage Temperature) C. Internal Storage Code (Internal Storage Code)

2 Other phrase

4 Conditions

Translation not a

Non-hazardous substances	Hazardous substances	No health hazard	No fire or explosion
GHS classification	Flags	Permitted countries	
DSD/DPD classification	Article groups	Output only for GHS	
Transport	Ingredients	Only for raw materials/preparations	
NFPA (USA)	Substance groups	Copy if translation is missing	
WHMIS (Canada)	For the public/industrial use	<b>Allocated phrases</b>	
Water hazard classes	Product codes	Phrase to delete after transfer	
Waste codes	Physical/chemical values	Allocated exposure scenario	
	Chemical elements		
	Target organs		

5 Default value for Phrase was created by

[J, Esc] Exit [Insert] Co

[F1] Occurrence of the ph

[Esc] Exit

File Edit Help (51.1.13)

1 allocated phrases

2 Output if certain phrases are present

3 Flag

4 Physical/chemical value Storage Temperature

5 Flag ISC Internal Storage Code

6 Physical/chemical value

7 Flag

8 Physical/chemical value

9 Combination of more than one flag  10 Separation character

OK



**7.1 Precautions for safe handling**



Temperature for storage not to exceed 25 C. Internal Storage Code 123.

## Application of the automatism to the variable output:

1. First ChemGes tries to find a **Flag** or **Physical/Chemical Value** to transfer.
2. If none is found, the default value (for SDS Phrases) will be applied.
3. If no default value is available, a red \$ sign will appear in place of the variable. Manual entry is required by pressing  *Enter*.
4. A mixture of automatic, default and manual entries is also possible.

**More detailed Information can be found in the Manual to ChemGes**

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