

GoldFFX: CREDO Module

CREDO Module (Classifying Mixtures)

In chemistry, a chemical substance is a form of matter that has constant chemical composition and characteristic properties. Chemical substances can be pure or mixtures and exist as solids, liquids or gases. There are also pure chemical compounds, which combine two or more elements into one substance through a chemical reaction.

In the CREDO module, you can generate a label for a specific concentration of a pure substance if the Gold SDS for the substance isn't available in the database. You can also create mixtures (i.e. more than one ingredient) by inputting the respective chemical proportions (%) composition of each ingredient. This enables the system to calculate the risks or hazard codes depending on the applicable modality. [N.B. you must always ensure the classification display for the 'modality' is toggled on for 'GHS/CLP'].

In order to generate a classification of a mixture, ensure that you have all the required basic information on hand to complete the exercise. The activity illustration below; provides steps for classifying a mixture with two ingredients.


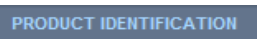



1. Create a Mixture, Sanitise Ingredients and Publish in CREDO

The steps will help in creating a simple mixture and generate a label for the mixture using an example 'Hydro-Metho mixture'.

Item	Material Name	Ingredients	Proportions/%
1	Hydro-Metho mixture	Hydrogen peroxide	3%
		methanol	97%

2. Activity: Classifying Hydro-Metho mixture: Product Identification

TAB: PRODUCT IDENTIFICATION	
Action	Description
Open the classify (CREDO) module	» click on the Credo Module button 
Open Product Identification tab	» click on “Product Identification tab” 
Enter required details to identify the material	» provide the following details Required data : Material Name (name of the mixture), catalogue number (any number to enable the reference number for mixture), Issue Date..
Example:	
Product Identification Tab	
Material Name	hydro-metho mixture (Mandatory)
Catalogue Number	12345 (Mandatory)
Issue date	Use default or insert your own date: use calendar icon  (Mandatory)
CAS No. [Chemical Abstract Substance Number]	Optional (we will leave field empty for this exercise)
EC No [European Council Number]	Not applicable in Australia (we will leave field empty for this exercise)
Uses	Optional. Fill the information for the ‘uses’ of the mixture, e.g. laboratory reagent.

REACH Uses [European standardised uses]	Not applicable in Australia (we will leave field empty for this exercise)
Synonym	Optional. Other name(s) you may provide for the mixture, e.g. hymetho

PRODUCT IDENTIFICATION

Material Name 

Catalogue Number

REACH Reg. No.

Issue Date 

CAS No.

EC No.

Uses

[REACH Uses](#)

Synonyms



3 Activity: Classifying Hydro-Metho mixture: Manufacturers Details (Optional)

TAB: MANUFACTURERS DETAILS

Action

Description

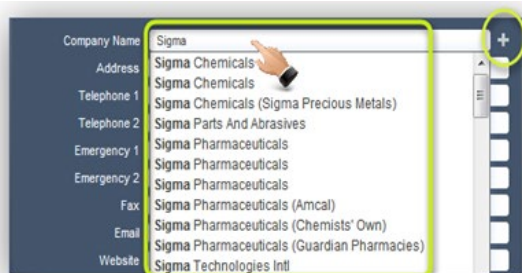
Open Manufacturers Details tab

» click on the Manufacturers Details tab **MANUFACTURERS DETAILS**

Enter company details

» click on “company name field” to choose from the list (already existing company) or select the add button to enter new company details (if not available from the database)

[Company details data will automatically populate fields if manufacturer information available within the database]



4 Activity: Classifying Hydro-Metho mixture: Credite Posteri

TAB: CREDITE POSTERI

Action

Description

Open Credite Posteri tab [Material Properties]

» click on the Credite Posteri tab **CREDITE POSTERI**

Enter Material Properties and Ingredients

» type the name of the ingredients as listed below

Item	Material Name	Ingredients	Proportions/%
1	Hydro-Metho mixture	Hydrogen peroxide	3%
		methanol	97%

The screenshot shows the 'CREDITE POSTERI' interface. At the top, there is a table with two columns: 'NAME' and 'PROPORTION %'. The table contains three rows:


NAME	PROPORTION %
1 methanol	97
2 hydrogen peroxide	3
3	

A red circle with the number '3' is overlaid on the table. Below the table, there are several dropdown menus for material properties:

- State: Manufactured
- Water Solubility: Miscible
- pH: Not Available
- pH as a solution: Not Available
- Flash Point (C): Not Available
- SG/Density (g/cm3): Not Available
- Lower Explosive Limit (%): Not Available
- Upper Explosive Limit (%): Not Available
- Boiling point/Range (C): Not Available
- Melting point/Range (C): Not Available
- Autoignition Temperature (C): Not Available
- Decomposition Temperature (C): Not Available
- Volatiles (%vol): Not Available
- Molecular Weight: Not Available
- Relative Vapour Density: Not Available
- Vapour Pressure (kPa): Not Available
- Viscosity (cSt): Not Available
- Evaporation Rate: BuAC = 1
- Appearance: colourless

A 'MORE' button is located at the bottom right of the interface.

5 Activity: Classifying Hydro-Metho mixture: Review Ingredients

TAB: REVIEW INGREDIENTS													
Action	Description												
<p>Open Review Ingredients tab</p> <p>[Generating Classification data]</p>	<p>» click on the Review Ingredients tab REVIEW INGREDIENTS</p> <p>[In this example; we will maintain the standard review in accordance with Chemwatch defaults – other ingredients settings are OFF by default except for sanitised view]</p>												
<p>Enter Ingredients information</p> <p>» [If the material ingredient exists in the database, a drop down list will display and then choose applicable ingredient name]</p> <p>» [enter the ingredients' proportions % composition in this mixture]</p> <p>» [ensure 'GHS(CLP)' is toggled to 'On']</p>	<p>» type the name of the ingredients as listed below and respective proportions %</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Material Name</th> <th>Ingredients</th> <th>Proportions/%</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Hydro-Metho mixture</td> <td>Hydrogen peroxide</td> <td>3%</td> </tr> <tr> <td></td> <td></td> <td>methanol</td> <td>97%</td> </tr> </tbody> </table> 	Item	Material Name	Ingredients	Proportions/%	1	Hydro-Metho mixture	Hydrogen peroxide	3%			methanol	97%
Item	Material Name	Ingredients	Proportions/%										
1	Hydro-Metho mixture	Hydrogen peroxide	3%										
		methanol	97%										

Options

Consider Reviewing Sanitisation

» [If the material ingredient exists in the database, the ingredient can be automatically sanitised and/or hidden or assign % proportion range]

» [enter the ingredients' preferred name and proportions % composition in this mixture to sanitise it]

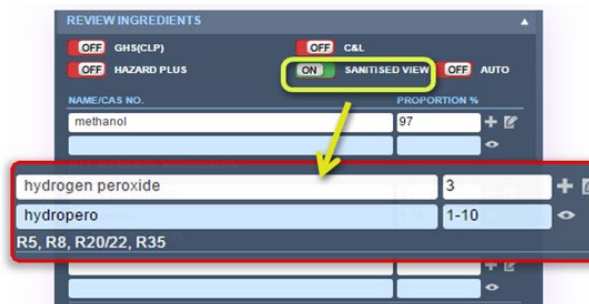
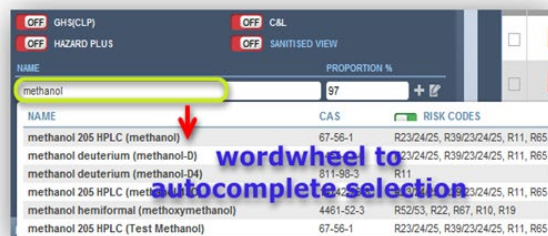
» click the sanitised view button to switch it "ON". Switching on the sanitise view activate extra rows beneath each ingredient fields to enter respective data.

Generally sanitising ingredients, means that as an author of the mixture, you may choose to not show the exact ingredient name and/or the exact ingredient % proportionality in the mixture when the mixture is finally generated. Note that this information can be extrapolated into a label as well as a Mini (M)SDS (if mixture is published into the inventory).

Sanitise AUTO button can be used to automatically sanitise all ingredients in the mixture. However, if user needs to sanitise a single ingredient, then this auto button needs to be switched OFF.

In the example below; we show sanisation of hydrogen peroxide as follows;

- Hydrogen peroxide => hydropero will be the new name of that ingredient that will be shown in the final report type (label/Mini MSDS) asa preferred name of the ingredient.
- % proportional will be assigned as range [1-10%] in order to not show the exact % proportion of that ingredient in the final mixture when a report is generated. Note that some cases, authors may not want to specify the exact ingredient name and/or the % proportion of their ingredients from competitors.



Consider hiding sanitised ingredient

»sanitise and hide ingredient and % proportion]

» click the hide button to hide ingredient and % proportion if necessary as shown below. The text “hidden” will display instead of the preferred ingredient name, which means that once the report type is generated for the mixture, the respective hidden ingredient will not be displayed.

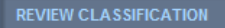
The screenshot shows a software interface with a dark blue background. At the top, there are several toggle switches: 'OFF' for GHS(CLP), 'OFF' for C&L, 'OFF' for HAZARD PLUS, 'ON' for SANITISED VIEW, and 'OFF' for AUTO. Below this is a table with two columns: 'NAME/CAS NO.' and 'PROPORTION %'. The table contains the following entries:



NAME/CAS NO.	PROPORTION %	
methanol	97	+ [edit icon]
[redacted]	[redacted]	[hide icon]
R11, R23/24/25, R39/23/24/25		
hydrogen peroxide	3	+ [edit icon]
Hidden		[hide icon]
R5, R8, R20/22, R35		
[redacted]	[redacted]	+ [edit icon]
[redacted]	[redacted]	[hide icon]

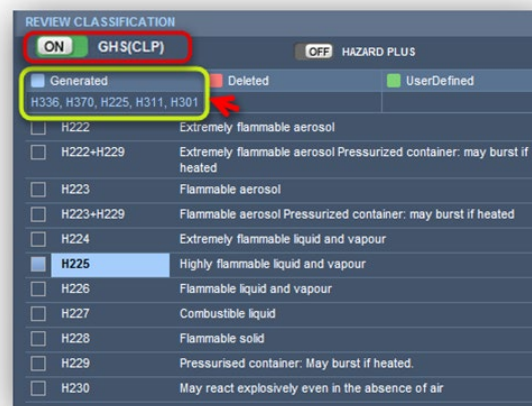
A yellow arrow points to the hide icon (an eye with a slash) in the 'Hidden' row, which is also circled in red.

6 Activity: Classifying Hydro-Metho mixture: Review Classification

TAB: REVIEW CLASSIFICATION

Action	Description										
Open Review Classification	» click on the Review Classification tab 										
Accept default classification data » [default classification data is generated by Chemwatch calculations based on Risk Code hazard classification or GHS hazard classification system.]	<p>» type the name of the ingredients as listed below and respective proportions %</p> <table border="1"> <thead> <tr> <th>Mixture</th> <th>Classification Data</th> <th>Ingredients</th> <th>Proportion</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Hydro-Metho mixture</td> <td rowspan="2">R23/24/25, R11, R39/23/24/25</td> <td>Hydrogen peroxide</td> <td>3%</td> </tr> <tr> <td>methanol</td> <td>97%</td> </tr> </tbody> </table>	Mixture	Classification Data	Ingredients	Proportion	Hydro-Metho mixture	R23/24/25, R11, R39/23/24/25	Hydrogen peroxide	3%	methanol	97%
Mixture	Classification Data	Ingredients	Proportion								
Hydro-Metho mixture	R23/24/25, R11, R39/23/24/25	Hydrogen peroxide	3%								
		methanol	97%								

 Note: [Review Classification. If the material exists in database , classification data will display by default to use GHS(CLP) . However, if this function is toggled 'Off', it must be toggled 'On' to activate classification data for Australia [GHS classification data].



7 Activity: Publish the Hydro-Metho mixture

TAB: DANGEROUS GOODS

SUBMIT CLASSIFICATION DATA: GENERATE THE MIXTURE

ON

PUBLISH

SUBMIT

» click on the PUBLISH and SUBMIT button to calculate the mixture's classification data. Note that when the "PUBLISH" button is switched on, this enables the system to save the mixture into your own inventory (into the Unfiled folder) so that users can easily search for the mixture, and subsequently add it into a folder into a manifest store and furthermore, enter quantities for the mixture and draw a Mini MSDS as well.

DG Data will now show in the respective fields in the DG panel

The screenshot shows a 'DANGEROUS GOODS' panel with the following fields and values:

Field	Value
UN/ID Number	1181
DG Class	6.1
Sub Risk 1	3
Sub Risk 2	None
Packing Group	II
Poisons Schedule	
Shipping Name	ETHYL CHLOROACETATE
N.O.S. Inq lookup	

At the bottom of the panel, there are two toggle switches: 'ON SUGGEST' and 'ON PUBLISH', both currently turned on. To the right of these are two buttons: 'UPDATE' and 'TEMPLATE'.

7.1 Activity: Classifying Hydro-Metho mixture: Dangerous Goods Classification (Optional)

TAB: DANGEROUS GOODS

Action

Description

Leave blank and allow the dangerous Goods classification to be automatically generated

» if left blank, the system can automatically calculate materials that fit the ingredient criteria to determine DG Class and Packing Group options from the classification list as per the applicable ingredient's classification.

Option 1

Open Dangerous Goods

[Generate classification DG data for the mixture]

» click on the Dangerous Goods tab and ensure the default fields are set to any and UN/ID Number is empty, shipping name is empty, N.O.S is also empty. The main reason these fields are empty is to ensure that the system can suggest materials that fit the ingredient criteria to suggest DG Class and Packing Group options from the classification list as per the applicable ingredient's classification.

» select the DGC and PKG checkboxes to draw down a recommended list of UN Numbers, DG Class/Subsidiaries, Packing Group, Shipping Name, Hazchem code.

UN	DG ...	DGS1	DGS2	PKG	Shipping Name	HazChem
1181	6.1	3		II	ETHYL CHLOROACET...	2W
1199	6.1	3		II	FURALDEHYD...	*3Y
1544	6.1			II	ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S.	2X
1545	6.1	3		II	ALLYL ISOTHIOCYAN... STABILIZED	3WE

DGC 6.1 PKG II


» click the 'OK' button once the respective UN Number is chosen from the list. Note that the window will automatically populate the Suggestions in the DG Classification field. That information is the data that will be used to classify the mixture as per recommended DG classification.

Option 2

Look up DG classification data

» [default DG classification data is generated by Chemwatch based on existing articles/materials classified as dangerous through the UNDG classification system]

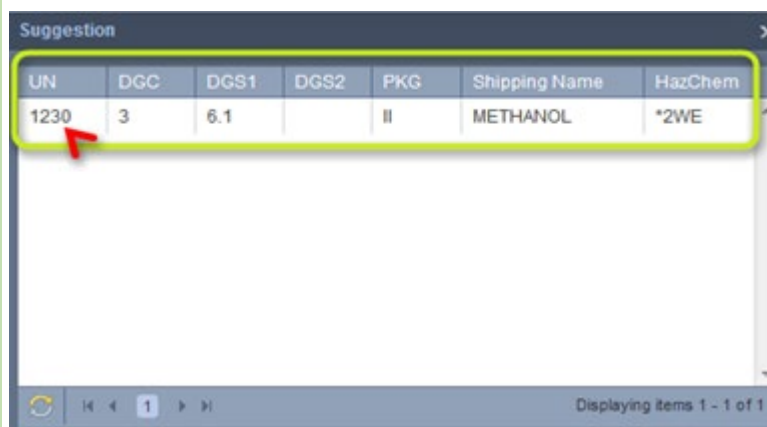
Note:

 [DG classification data is essential for the mixture as it also contains a high composition of DGC3, PG II for methanol]. This information will automatically be generated in the label report as part of the communication pictograms, signage or diamond for storage. The images will depend on the type of label format chosen in the label panel.

» type the name of the ingredients as listed below and respective proportions %

Mixture	Classification Data	Ingredients	Proportion
Hydro-Metho mixture	We will use "Methanol" with high ingredient % composition to generate DG data	Hydrogen peroxide	3%
		Methanol UN1230 DGC3 PGII	97%

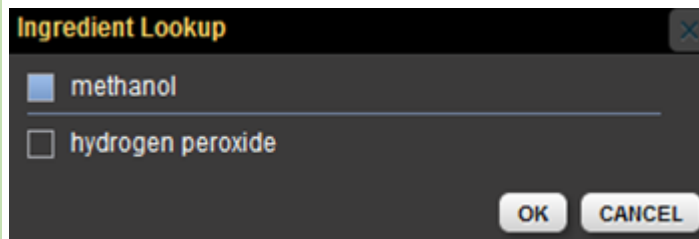
Search by UN number to look for classification data>select UN number to load data



[you can also use the ingredient link look up option to search for available classification data for the material ingredients]

[InqLookup](#)

[select ingredient checkbox alongside material name to apply ingredient look up]

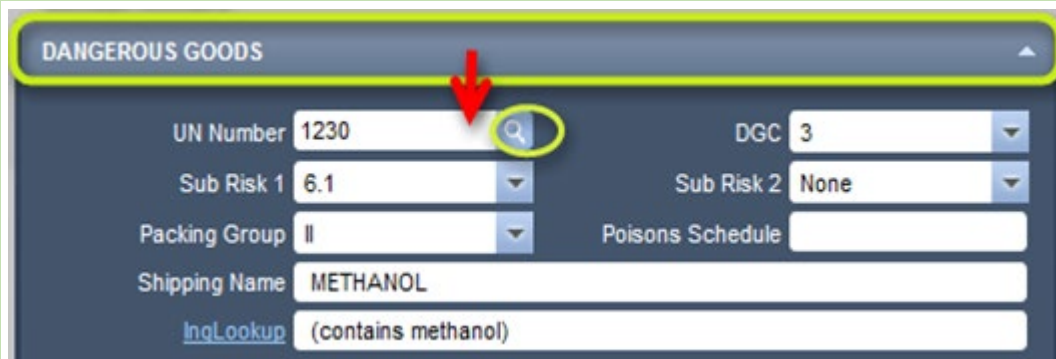


Ingredient Lookup


methanol

hydrogen peroxide

OK CANCEL



DANGEROUS GOODS

UN Number 1230  DGC 3

Sub Risk 1 6.1 Sub Risk 2 None

Packing Group II Poisons Schedule

Shipping Name METHANOL

[InqLookup](#) (contains methanol)



HAZARD	MATERIAL NAME	VERSION	ISSUE DATE	CATALOGUE NUMBER	DGC	DGS1	DGS2	PKG	SDS ETC
	Hydro-Metho mixture R23/24/25 R39/23/24/25 R11	1.1	10/07/2015	545	6.1	3		II	
	Arpansa mix z R41 R35	1.3	03/07/2015	23456	None	None		None	
	ANU Test for Chem3206 R11 R63(3) R65 R48/20 R67 R38 R49 R33? R42?	1.2	03/07/2015	3576	3	None		II	

[Hazard and DG classification data for the mixture rendered in the in the materials grid including the hazard colour coded icon].

8 Activity: Classifying Hydro-Metho mixture: Generate Label for the Mixture

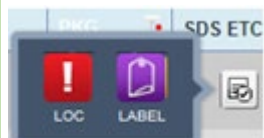
LABEL: GENERATE A LABEL FOR THE MIXTURE

Action

Description

Open SDS button

[Generate label for the mixture]



» move mouse pointer over the SDS button



» click on the LABEL icon



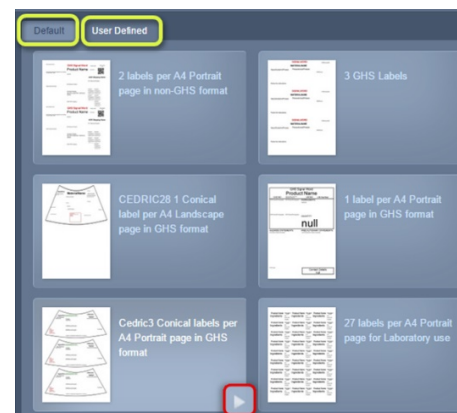
HAZARD	MATERIAL NAME	VERSION	ISSUE DATE	CATALOGUE NUMBER	DGC	DG51	DG52	PKG	SDS ETC
	Hydro-Metho mixture R23/24/25 R39/23/24/25 R11	2.2	10/07/2015	545	6.1	3			
	Arpansa Mix 2 R41 R35	1.3	03/07/2015	23456	None	None			

Select default label template

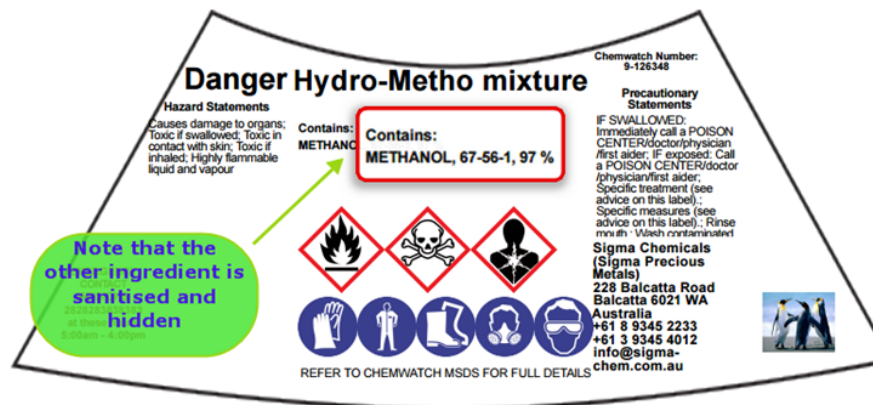
» [choose the default template format from the gallery to generate label information]

» move mouse pointer over the desired label template thumbnail and click submit

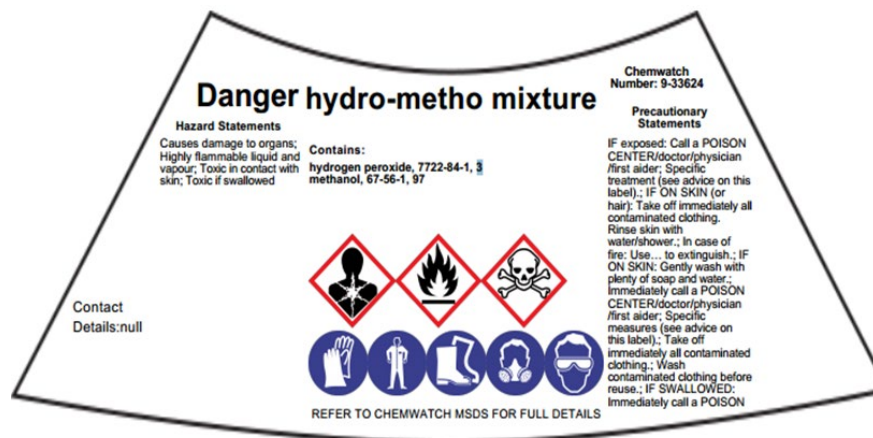
[example provided below to generate a label for a “3 Conical Label per A4 Portrait page in GHS Format”]



[“3 Conical Label per A4 Portrait page in GHS Format for the mixture “hydro-metho mixture” with one of the ingredients sanitised and hidden]



[“3 Conical Label per A4 Portrait page in GHS Format for the mixture “hydro-metho mixture” with all the ingredients NOT sanitised and NOT hidden]



Print or Save Label: Select the respective icon from the pdf toolbar