

Product Stewardship - Classification & Rules - (to be updated)

Content:

- [Introduction to rules](#)
- [GHS rules](#)
- [HazardComp rules](#)
- [Notifications Status rule](#)
- [Local part rules](#)
- [Grouped rules](#)
- [Easy Expert rule](#)
- [Tips and tricks: blocking the launching of a rule](#)

Introduction to rules

A **rule** is a program used to execute an automatic calculation function and fill in **EHS** data automatically.

There are different type of rules:

- rules for composition calculation (i.e. COMP rule, HazardComp rules, SVT rules);
- rules for classification calculation (i.e. GHS rules);
- rule for inventory status (NotStat rules);
- rules for local regulation (i.e. EU Seveso III, US SARA Components, etc.).

Some rules can be launched at both Product and PureSub level (i.e. GHS rules), but most of the rules are launched at Product level only.

Most of the rules are provided by **SAP** and updated twice a year. It is possible to customize standard SAP rules by using external tables / mapping table. This is done by the **EH&S team (J.Tran & J.Haupt)**, with the validation of each zone process owner. This customization is limited as most of the rules algorithm is owned by SAP.

There are also rules created by **Syensqo** for additional needs (i.e. calculate the composition to track for each country SVT). For each rule, there are input data and output data:

- **Input data** : data used by the rule for the calculation. A same rule can read different type of data (compositions/phrases/numeric values) at different level (Product and/or Pure_Sub):
 - The rules that use the product composition as an input are customized to read first the Legal Composition if there is one in the relevant country and then, the Standard composition.
- **Output data**: result of the rule calculation. It can be a classification, a composition, a phrase, etc.

How to run a rule?

You have to be in **edit mode!**

Right click on the specification number in the property tree, then Secondary Data Determination > Determination

[blocked URL](#)

GHS rules



Training Materials

>> For more detailed information, refer to the GHS rules [training item](#) . **(broken link)**

The **GHS rules** determine the following information according to each country own GHS requirements:

GHS classification	GHS labeling	Labeling of special preparations (GHS) / Other hazards (GHS)
---------------------------	---------------------	---

<ul style="list-style-type: none"> • Hazard Class • Hazard Category • Route of Exposure • Target organs 	<ul style="list-style-type: none"> • Hazard Class • Hazard Category • Route of Exposure • Target organs 	<ul style="list-style-type: none"> • Supplemental Hazard Information (EUH / AUH) • US & CA Hazards Not Otherwise Classified (HNOC)
---	---	--

The GHS rules can be used to classify ingredients (Pure substances - **PURE_S** **UB**), substances and mixtures (Prodcum - **PROD_COM**).



Important

Launching GHS rules at Pure substance level is the role of EHS administration.

Specificity for USA, Canada and Australia: these countries GHS have not adopted environmental hazards, and thus they are optional.

As such environmental hazards are displayed in sub **section 2.3** of the SDSs and displayed separately on labels . The **GHS_US** and **AU** rules have been divided into:

- **GHS_US** and **GHS_AU** that determine *Physical and Health Hazards*;
- **GHS_US Environmental Hazards** and **GHS_AU Environmental Hazards** that consider environment only (GHS US Environment is used for **Canada** too).

The following countries/zones have their own GHS rule

		GHS_UN Rev 1 - 2005	GHS_UN Rev 2 - 2007	GHS_UN Rev 3 - 2009	GHS_UN Rev 4 - 2011	GHS_UN Rev 5 - 2013	GHS_UN Rev 6 - 2015	GHS_UN Rev 7 - 2017
All other countries	GHS_UN							X
Europe	GHS_EU					X		
Brazil	GHS_BR				X			
Argentina	GHS_AR					X		
China	GHS_CN				X			
Japan	GHS_JP				X			
Indonesia	GHS_ID				X			
Philippine	GHS_PH				X			
Russia	GHS_RU				X			
United States	GHS_US		X					
	GHS_US_EV		X					
Canada	GHS_CA		X					
Thailand	GHS_TH		X					
Vietnam	GHS_VN		X					
Phillipines	GHS_PH				X			
Korea	GHS_KR				X			
Australia	GHS_AU		X					
	GHS_AU_EV		X					
Costa Rica	GHS_CR						X	
Mexico	GHS_MX					X		
Turkey	GHS_TR		X					
Malaysia	GHS_MY		X					
Taiwan	GHS_TW				X			
Singapore	GHS_SG				X			
New Zealand	GHS_NZ		X					

The **GHS_UN** generic rule is used for the other countries where GHS is applicable (i.e. **India, Hong Kong** , ...). This rule follows the last UN Recommendation.

Note that all these GHS rules follow *different version* of the UN GHS Recommendation. These rules might also rely on different building blocks / categories, even among the same UN revision, and on different generic concentration limits triggering classification of a mixture. As a consequence, with the same product data, **you may have different GHS classifications around the world** .

Useful Links

- Refer to the link for more information about the **worldwide GHS comparison** (Listing all categories, Building blocks, cut-off limits by rules, etc.). **(broken link)**
- Refer to the link for more information about **Listing of assessment phrases** (Listing all phrases recognized by the rules and where they must be managed to be used by rules). **(broken link)**

HazardComp rules



Training Materials

>> For more detailed information, refer to the HazardComp rules [training item](#). **(broken link)**

Based on the Legal / Standard composition, the HazardComp rules determine:

- Hazardous Ingredients in [Chapter 3](#);
- Components with Occupational Exposure Limits in [Chapter 8](#);
- Components with Biological Exposure Indices in [Chapter 8](#);
- Product classification and Sub-Compositions regarding local regulations in [Chapter 15](#) (for some countries);
- Components with DNEL/PNEC values for EU only .

If there are no ingredients to list in these classes, the rules output a negative statement to specify that there are no hazardous ingredients / no ingredients with OEL.

For **section 3** , the rules output the hazardous ingredients with a range of concentration and for some rule the ingredient exact value. By default, the range of concentration is displayed on the SDS (except for Japan where the exact concentration can be automatically displayed regarding the pure_sub local JP classification). But there is the possibility to display the exact value for one/several ingredients, by using the class "Display exact value" .

The ranges of concentration are not the ones filled in the standard composition but the ones specified in each rule external table (see the table below). Today these ranges are the same for all zones in order to have homogeneous SDS around the world - as far as possible.

< 0.1%	≥ 5 - < 10 %	≥ 30 - < 40 %	≥ 80 - < 90 %
≥ 0.1 - < 0.3 %	≥ 10 - < 15 %	≥ 40 - < 50 %	≥ 90 - < 95 %
≥ 0.3 - < 0.5 %	≥ 15 - < 20 %	≥ 50 - < 60 %	≥ 95 - < 99 %
≥ 0.5 - < 1 %	≥ 20 - < 25 %	≥ 60 - < 70 %	≥ 99 - < 100 %
≥ 1 - < 5 %	≥ 25 - < 30 %	≥ 70 - < 80 %	



Important

If one of the ingredients has a specific concentration limit, then the HazardComp rule outputs this concentration and not the range of the rule external table.

It is possible to use customized concentration ranges or to displayed exact values by using rule block. In this case rule will use ranges indicated in Standard Composition in first priority (see Tips and tricks: blocking the launching of a rule).

Useful Links

- Refer to the link for more information about the world wide [Hazard Compo Rules comparison](#) (listing all GHS & OEL cut-off limits by rules). **(broken link)**

The cut-off limits triggering the display of an ingredient in **section 3** can be different from one country to another, due to the difference within the GHS implementation in each country. Thus, **you may have different sections 3 / 8 around the world**. There is one HazardComp rule for each GHS rule except for CA which shares HazardCompo rule with US (see above the list of countries with GHS), including one generic HazardComp_UN rule.

Impact on sections 11 & 12:

- If no tox/ecotox data are available for a product (meaning some classes of chapter 11 and/or 12 are empty at the PRCO level), the system automatically displays tox/ecotox data of the ingredients listed in the Hazardous Composition of chapter 3, if such data exist at the Pure_Sub level;
- These data are displayed directly on the SDS with the name of the corresponding ingredients, but not in the PRCO property tree in SAP.

Notifications Status rule



Training Materials

>> For more detailed information refer to the NotStat rule [training item](#) . **(broken link)**

The rule set "NOTSTAT" determines the notification status of a product on the basis of the notification status of its components for the following specific regulatory lists:

- TSCA (North America);
- DSL-NDSL (Canada);
- AICS (Australia);
- ENCS (Japan);

- KECl (Korea);
- IECSC (China);
- PICCS (Philippines);
- ZTW_INV (Taiwan);
- NZIOC (New Zealand).

Other regulatory lists are available by default, but haven't been selected in the rule customization yet (for further details, revert to the training item).

This rule set is also outputting (see SVT section):

- Registration according to **TSCA 12b** , **Canadian SNAC** and **US TSCA SNUR**. The same information is outputted by **TSCA12b - Stand. Composition Rule**.

Two rules, with the same data origin, are available in EHS:

- **Stand. compo/ WORLD** based on the Standard (or Legal) Composition;
- **Exact compo RM / WORLD** based on the Exact Composition.

The data maintenance determines which calculations are carried out.

Users have to **check the result** and always have the possibility to manually modify/remove some instances if the result provided by the rule is not correct. However manual instances have to be managed as recommended on the training item to be correctly displayed on the SDSs.

Local part rules

On top of the previous rules, there are other rules dedicated to a specific country, that enable to complete some information in different sections of the SDS.

The list of all rules is available in the "[Grouped rules](#)" part . **(broken link)**

Useful Links

For the detail of each country local part rules:

- Local Part: Asia Pacific;
- [Local Part: Europe - Middle East - Africa](#); **(broken link)**
- [Local Part: North America](#);
- [Local Part: Latin America](#). **(broken link)**

Grouped rules

It is possible to launch several rules at once, by clicking on the title of the group of rules (= grouped rule). By doing so, it will launch all the rules listed under the title. The table hereafter describes the rule launching menu and specify where there is a "grouped rule" and what each grouped rule contains.

- *For example*, if you double-click on the title 2 - EUROPEAN REGULATIONS RELATED RULES , then it will launch all the rules listed in the block 2, including 2.1, (subgroups 2.1.1., 2.1.2., 2.1.3.), 2.2 and 2.3;

Useful Links

>> Refer to the link for more information about available [rule groups](#) . **(broken link)**

Easy Expert rule



Training Materials

>> For more detailed information refer to the Easy Expert rule training item.

The **EH&S Easy Expert** enables you to create and edit sets of rules directly in the SAP System. With these sets of rules, you can easily make mass changes to data in any individual specification (ProdCom, PureSub, RealGroup, etc.) or list of specifications.

The sets of rules can be stored in the **SAP System** to re-use them. Once created, the update of your Easy Expert rule can be done later.

When the EH&S Easy Expert rules are run, the system gives the choice of the following options:

- Write the results to the database immediately;
- Display the results before writing them to the database;
- Run the set of rules as a background job.

Tips and tricks: blocking the launching of a rule

It is possible to prevent the launching of some rules, by using the class "**Control data for rule sets**", in chapter 0.

[blocked URL](#)

In this class, you have the possibility to select one/several rule/s that you do not want to launch. This can be useful when you have done a lot of manual modifications on rules output, and you do not want to overwrite your manual modifications when you revise your SDS later on.

[blocked URL](#)



Contact

More questions? Contact [EH&S support team](#)