

2016 GHS Implementation Progress Reporting Template

Introduction

This template has been designed to provide a practical insight into the progress of GHS implementation in each APEC member economy. It builds on the ideas and information from Annexes 1 and 2 of the Report of the Virtual Working Group on GHS Implementation “*Developing Clarity and Consistency in the Implementation of the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS)*” endorsed at the 7th Chemical Dialogue meeting at Peru in May 2008. This report is intended to complement the UN GHS reporting.

The intent of this template is to identify the progress of GHS implementation in each member economy and each sector, and to identify sector specific and cross-sectoral implementation issues that may be of interest and/or concern to other economies and industry. Once identified, these issues may be addressed through further discussion between member economies, with the assistance of the Chemical Dialogue or referred to the United Nations Sub-Committee of Experts on the Globally Harmonized System of classification and labelling of chemical products (UNSCGHS).

In order to achieve these objectives, the template is divided into a general section, industrial sector, consumer goods, agricultural chemicals and transport. Detailed and specific answers should be provided for each of the questions. Where a reference is made to documents, information on how to access these documents should follow.

Please answer all sections, even if your economy has a single set of regulations and a single regulatory body working on GHS implementation. This will help to identify any differences in approaches adopted by the different economies.

At the APEC CD 2014, the CD agreed to trial the use of an online based Smart Form to report on the GHS Implementation. Noting that additional work is ongoing on the Smart Form to make it more user friendly, the CD agreed that Members can complete either the Smart Form or this word document template.

If you require any assistance on filling out this template or the Smart Form, please contact the Catherine Oh of the Virtual Working Group on GHS at coh@accord.asn.au.

History

In 2009, nine out of 21 member economies of the APEC Chemical Dialogue (CD) completed the GHS Implementation Progress Reporting Template (Template). This process not only provided invaluable information regarding the progress of GHS implementation in these economies, but the participating member economies also reported that the process of completing the Template enabled articulation of implementation issues for further discussion.

With the finalisation of the 2009 report, APEC CD agreed that the Template should be completed by APEC member economies at regular intervals to provide the opportunity for economies to share the GHS implementation workload and draw on the experiences of others in the implementation of the GHS. Regular reporting will also provide opportunities for industry to work more closely with economies to progress the development of the GHS and identify implementation issues of concern at a practical level.

Six GHS implementation reports have been finalized so far – 2009, 2010/11, then annually from 2012 to 2015. Summary of implementation progress was compiled for APEC Ministers in 2009, then annually from 2011 to 2015 based on these responses. At the APEC CD 2012 a decision was reached to publish the GHS implementation reports on the GHS Reference Exchange and Tool (GREAT) website hosted by the Chinese Taipei to allow sharing of this information

(<http://great.osha.gov.tw/ENG/index.aspx>). It is expected that the 2016 report will also be made available on the GREAT website.

General

Please provide the Economy for which this Template is completed below.	
JAPAN	
Have you completed a GHS implementation status report in previous years?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please provide the year when the last report was completed.	
2015	
Has there been any changes to the GHS implementation status in your economy since completing the last GHS implementation status report?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<i>If yes, go to next question. If no, no further answers are required.</i>	
Does your Economy intend to adopt and implement GHS for any chemical sector in the near future (Starting work within the next 2 years)?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<i>If yes, go to next question. If no, no further answers are required.</i>	
Is there an overall strategic plan for GHS implementation?	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, where can it be found? Please list websites, attach documents, etc.	
<ul style="list-style-type: none"> <p>Japanese government established Inter-Ministerial Committee concerning GHS. It consists of Ministry of Health, Labour, and Welfare (MHLW), Ministry of the Environment (MOE), Ministry of Economy, Trade, and Industry (METI), Ministry of Foreign Affairs (MOFA), Ministry of Internal Affairs and Communications (MIC), Ministry of Agriculture, Forestry, and Fisheries (MAFF), Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), and Cabinet Office (CAO). This committee developed “GHS Classification Guidance for the Japanese Government” to facilitate classification process of chemical substances in 2009 (it was revised in 2013). And METI also developed guidance for chemical mixture called “GHS Classification Guidance for Enterprises” in 2009 (it was revised in 2013). These guidances are available both in Japanese and in English. (http://www.meti.go.jp/policy/chemical_management/int/files/ghs/h25jenter_en.pdf) (http://www.meti.go.jp/policy/chemical_management/int/files/ghs/h25jgov_en.pdf)</p> <p>In 2016, National Institute of technology and Evaluation (NITE), Japan Chemical Industry Association (JCIA) and the experts of GHS became the member of Inter-Ministerial Committee.</p> <p>In 2009, Japan established the Japanese Industrial Standard (JIS) based on the GHS classification (JIS Z 7252) to reflect the 2nd revision of GHS Purple Book and ‘Japanese Building Block approach’. In 2010, Japan also revised the JIS based on GHS SDS and labelling to reflect the 3rd revision of GHS Purple Book. In 2012, Japan integrated existing SDS and labelling JIS (JIS Z 7250, JIS Z 7251) into new JIS Z 7253 reflecting the 4th revision of GHS Purple Book. In 2014, Japan revised JIS Z 7252 based on the GHS classification to reflect the 4th revision of GHS Purple Book and ‘Japanese Building Block approach’.</p> <p>JISZ7253 has been already applied since 2017.</p> <p>PRTR Law (METI) and the Industrial Safety and Health Act (MHLW) stipulate the way to provide information on hazardous chemicals (e.g. SDS and Labelling). In 2012, METI and MHLW revised related ordinances and guideline to make conform to GHS.</p> <p>@Summary of the revision of PRTR Law</p> <ul style="list-style-type: none"> - The information required for SDS was expanded to 16 headings in line with GHS. - Labelling became endeavours obligation. - JISZ7253 which covers Labelling and SDS became endeavours obligation. <p>etc.</p> <p>@Summary of the revision of ISHA</p> <ul style="list-style-type: none"> - All the hazardous chemicals and mixtures containing those chemicals became subject to endeavours obligation of providing SDS and labelling as of 1 April 2012; - Labelling and delivering documents conforming to JIS Z7253 is regarded as compliance with ISHA. 	

<ul style="list-style-type: none"> - Originally, 640 chemical substances had been subject to obligation of delivering documents as Notifiable Substances. In June 2016 those chemicals became subject to obligation of labelling as well. - Additional Notifiable Substances were designated in February 2016, and it will be effective as of March 2017, which makes the total number of Notifiable Substance 663. 	
Do you have a GHS coordinator to facilitate implementation discussions within your economy?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please fill out the following information for the coordinator:	
Organisation / Agency	Ministry of Health, Labour, and Welfare (MHLW)
Name	Ms. Tomoko Terashima
Phone number	+81-3-3502-6756
E-mail address	terashima-tomoko@mhlw.go.jp
Website	http://www.mhlw.go.jp/
Do you have a hazard classification database?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, is it mandatory classification, or for information only? How do you access the database?	
<ul style="list-style-type: none"> • Japanese government has classified approximately 3,000 substances since 2006, including approximately 1,400 substances regulated by the relevant Japanese laws. METI and MHLW have classified the substances with regard to physical properties and human health, and MOE has classified them with regard to aquatic environment and ozone layer. The classification results, including rationales for classification, are available on the website of National Institute of Technology and Evaluation (NITE) in Japanese and in English. But not all of the rationales for the classification are available in English. (NITE website: http://www.safe.nite.go.jp/english/ghs_index.html, OECD eChemPortal: http://www.echemportal.org/). • METI developed a GHS Mixture Classification System (Ver.2.0), a software for GHS classification of mixtures, which is available in Japanese and in English, based on the 4th revision of GHS Purple Book and 'Building Block approach' in Japan in 2014. By inputting the ratio of chemicals in the mixture and GHS classification results of each chemical, users can classify the chemical mixture efficiently and export the GHS labeling elements in line with the results of classification. (http://www.meti.go.jp/policy/chemical_management/int/ghs_auto_classification_tool_ver4_EG.html) 	

Industrial Workplace

Regulator to complete	
Do you intend to implement GHS for this sector?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<i>If yes, please provide the following details. If no, no further answers are required for this section.</i>	
Lead Government Agency	Ministry of Health, Labour and Welfare
Contact person	Ms. Tomoko Terashima
Phone number	+81-3-3502-6756
E-mail address	terashima-tomoko@mhlw.go.jp
Website	http://www.mhlw.go.jp/
When do you plan to implement GHS for this sector?	
Relevant legislation was proclaimed on Oct. 20, 2006.	
How long is the phase in period and what are the transition arrangements?	
From December 2006 to December 2008	
Are the main relevant legislations implementing GHS finalized and in operation?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please provide a means of access to the document. E.g. web-link, contact person. If no, when do you expect it to be finalized?	
Web-link (http://www.mhlw.go.jp/topics/bukyoku/roudou/ghs/index.html)	
Do you intend to adopt all hazard classification building blocks GHS as is written in the purple book?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please indicate the cut-off points you will be adopting where the choice is given in the purple book. E.g. sensitizers. If no, please describe the building blocks that will be adopted.	
The list of Cut-off values for Notifiable Substances is published in the Ordinance on Industrial Safety and Health.	
Do you intend to adopt any non-GHS classification criteria? E.g. classification of flammable/combustible liquids beyond 93 °C.	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, please provide full details of non-GHS criteria being considered for adoption.	
Will there be a risk assessment element overlayed on top of GHS classification on the label? If yes, how will it work?	
No	
Is there to be a maximum number of the following included on the SDS and the label?	
Pictograms	None
Hazard statements	None
Precautionary statements	None
How is the hierarchy of pictograms, hazard statements and precautionary statements defined?	
As prescribed by GHS1.4.10.5.3	
Do you have any arrangements in place to deal with imported chemicals / products? i.e. is there a plan to implement alternate compliance provisions or "deemed-to comply" provisions and will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?	
No	
Do you have training and awareness activities planned? If yes, please provide some information.	
No	
Are there any plans to exchange personnel with another economy to improve harmonization of GHS	

implementation?
No
Please list any specific issues of concern you have experienced so far during your GHS implementation efforts.
-
<i>Industry to complete</i>
Has it been easy to access all necessary information for compliance?
Do you see any specific issues that are limiting the progress of GHS implementation?
What are the expected costs for industry in the implementation of GHS?
What are the expected benefits for industry through the implementation of GHS?

Consumer Products

Regulator to complete	
Do you intend to implement GHS for this sector?	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<i>If yes, please provide the following details. If no, no further answers are required for this sector.</i>	
Lead Government Agency	Ministry of Economy, Trade and Industry
Contact person	Ms. Yumi NEGAMI
Phone number	+81-3-3501-0080
E-mail address	negami-yumi@meti.go.jp
Website	http://www.meti.go.jp/
When do you plan to implement GHS for this sector?	
How long is the phase in period and what are the transition arrangements?	
Are the main relevant legislations finalized?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please provide a means of access to the document. E.g. web-link, contact person. If no, when do you expect it to be finalized?	
Do you intend to adopt all hazard classification building blocks GHS as is written in the purple book?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please indicate the cut-off points you will be adopting where the choice is given in the purple book. E.g. sensitizers. If no, please describe the building blocks that will be adopted.	
Do you intend to adopt any non-GHS classification criteria? E.g. classification of flammable/combustible liquids beyond 93 °C.	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, please provide full details of non-GHS criteria being considered for adoption.	
Will there be a risk assessment element overlaid on top of GHS classification on the label? If yes, how will it work?	
Is there to be a maximum number of the following included on the SDS and the label?	
Pictograms	
Hazard statements	
Precautionary statements	
How is the hierarchy of pictograms, hazard statements and precautionary statements defined?	
Do you have any arrangements in place to deal with imported chemicals / products? i.e. is there a plan to implement alternate compliance provisions or "deemed-to comply" provisions and will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?	
Do you have training and awareness activities planned? If yes, please provide some information.	
Are there any plans to exchange personnel with another economy to improve harmonization of GHS implementation?	

Please list any specific issues of concern you have experienced so far during your GHS implementation efforts.
<i>Industry to complete</i>
Has it been easy to access all necessary information for compliance?
GHS for consumer products is not mandatory in Japan. Therefore, voluntary approaches are considered to be very important. To encourage industry activities, several guidance documents and other tools are available.
As for consumer products, Inter-Ministerial Committee on GHS decided to adopt risk-based labelling for consumer products (Annex 5) in 2007. And the guidance document named “Guidance on a Consumer Product Risk Assessment for GHS Labelling” was prepared by NITE in 2008. The English version of guidance document is available from http://www.nite.go.jp/en/chem/risk/ghs_consumer_product.html.
Also a calculation tool for consumer products has been developed; the title of it: Human Exposure Estimation Software for Consumer Products (CHEM-NITE).
To cite an example of industry activities, Japan Soap and Detergent Association developed the guidance document for their products http://jsda.org/w/e_engls/e_ghs01.html, and started GHS based labelling for a part of their products in 2011.
It is easy for experts of GHS to access the information in Japan.
Do you see any specific issues that are limiting the progress of GHS implementation?
Lack of experts to classify and label consumer products, especially in SMEs
What are the expected costs for industry in the implementation of GHS?
<ul style="list-style-type: none"> • The guidance documents (first box) contributed industry not only to reduce their workload but also to effectively implement GHS. In addition, the guidance document avoids stakeholders’ confusion for labelling results of similar type of products. •
What are the expected benefits for industry through the implementation of GHS?
<ul style="list-style-type: none"> • Prevent any injury that may be caused by the result of product use through properly delivering information on hazards and safe handling.

Agriculture

<i>Regulator to complete</i>	
Do you intend to implement GHS for this sector?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<i>If yes, please provide the following details. If no, no further answers are required for this sector.</i>	
Lead Government Agency	Ministry of Agriculture, Forestry, and Fisheries
Contact person	Mr. Masashi KUSUKAWA Mr. Hiroyuki ITOU
Phone number	+81-3-3501-3767
E-mail address	ghs-agri@nm.maff.go.jp
Website	http://www.maff.go.jp/
When do you plan to implement GHS for this sector?	
How long is the phase in period and what are the transition arrangements?	
Are the main relevant legislations finalized?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please provide a means of access to the document. E.g. web-link, contact person. If no, when do you expect it to be finalized?	
Do you intend to adopt all hazard classification building blocks of GHS as is written in the purple book?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please indicate the cut-off points you will be adopting where the choice is given in the purple book. E.g. sensitizers. If no, please describe the building blocks that will be adopted.	
Do you intend to adopt any non-GHS classification criteria? E.g. classification of flammable/combustible liquids beyond 93 °C.	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please provide full details of non-GHS criteria being considered for adoption.	
Will there be a risk assessment element overlayed on top of GHS classification on the label? If yes, how will it work?	
Is there to be a maximum number of the following included on the SDS and the label?	
Pictograms	
Hazard statements	
Precautionary statements	
How is the hierarchy of pictograms, hazard statements and precautionary statements defined?	
Do you have any arrangements in place to deal with imported chemicals / products? i.e. is there a plan to implement alternate compliance provisions or "deemed-to comply" provisions and will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?	
Do you have training and awareness activities planned? If yes, please provide some information.	

Are there any plans to exchange personnel with another economy to improve harmonization of GHS implementation?
Please list any specific issues of concern you have experienced so far during your GHS implementation efforts.
<i>Industry to complete</i>
Has it been easy to access all necessary information for compliance?
Do you see any specific issues that are limiting the progress of GHS implementation?
What are the expected costs for industry in the implementation of GHS?
What are the expected benefits for industry through the implementation of GHS?



Global Harmonization System (GHS) for Chemical Labelling SmartForm

Asia-Pacific Economic Cooperation

Tracking Code: **ZKT5KZ2**

Your form has been successfully submitted. Please keep a copy of this acknowledgement for your records.



Date and Time: **20 Jan 2017 12:54:12 PM**

Receipt Number: **global-harmonization-37**

To save or print a copy of the completed form and acknowledgement go to the "File" menu and select "Save as" or "Print".

Introduction

Responding for

Please select your economy *

Japan

How are you responding *

- General Information
- As a Regulator for the Industrial Workplace Chemicals Sector
- As a Regulator for the Consumer Products Sector
- As a Regulator for the Agricultural Chemicals Sector
- From Industry for the Industrial Workplace Chemicals Sector
- From Industry for the Consumer Products Sector
- From Industry for the Agricultural Chemicals Sector

Respondent details

Organisation/Agency

Japan Chemical Industry Association

Name

Dr. Fumiaki Shono

Phone number

+81-3-3297-2567

Email address

fshono@jcia-net.or.jp

Have you completed a GHS implementation status report in previous years? *

Yes

No

Industry Input - IWCS

Industrial Workplace Chemicals Sector

This section is for any industry associates who may wish to comment regarding the GHS implementation process.

Has it been easy to access all necessary information regarding GHS compliance?

Yes.

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Are there specific issues that are limiting the progress of GHS implementation?

None.

5 of 1000 characters

What are/were the expected costs for industry in the GHS implementation?

Additional work for classification of substances, and making/issuing of labels and SDS based upon GHS.

102 of 1000 characters

If your economy has implemented GHS, is there any difference in expected cost prior to implementation and actual cost post-implementation of GHS?

Depending upon the scale of companies, extra work was experienced in order to meet with GHS requirements. This causes additional cost in putting additional resources. In particular, for exporting cases, individual preparation is needed for different destination countries since GHS requirements are different by county.

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What are/were the expected benefits for industry through the GHS implementation?

Standardized approach of hazard communication may help downstream users in understanding chemical safety information and associated hazard information. Ultimately if standardization is fully in place with higher harmonization across the countries, it should be able to reduce workload needed for hazard communication at each company especially for export.

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If your economy has implemented GHS, is there a difference in expected benefits prior to implementation and actual benefits post-implementation of GHS?

In reality, a number of variances have been recognized in national GHS implementation at each economy due to applying building blocks differently and taking different version of GHS. Then full harmonization was not reached yet. It may definitely cause additional cost rather its benefits we expected.

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Organisation/Agency

Japan Chemical Industry Association

Name

Dr. Fumiaki Shono

Phone number

+81-3-3297-2567

Email address

fshono@jcia-net.or.jp

Do you have more information to supply that did not fit into the fields above?

Yes

No



Global Harmonization System (GHS) for Chemical Labelling SmartForm

Asia-Pacific Economic Cooperation

Tracking Code: **JZVR6MT**

Your form has been successfully submitted. Please keep a copy of this acknowledgement for your records.



Date and Time: **16 Jan 2017 6:55:09 PM**

Receipt Number: **global-harmonization-34**

To save or print a copy of the completed form and acknowledgement go to the "File" menu and select "Save as" or "Print".

Introduction

Responding for

Please select your economy *

Philippines

How are you responding *

- General Information
- As a Regulator for the Industrial Workplace Chemicals Sector
- As a Regulator for the Consumer Products Sector
- As a Regulator for the Agricultural Chemicals Sector
- From Industry for the Industrial Workplace Chemicals Sector
- From Industry for the Consumer Products Sector
- From Industry for the Agricultural Chemicals Sector

Respondent details

Organisation/Agency

DENR - ENVIRONMENTAL MANAGEMENT BUREAU

Name

EMMANUELITA D. MENDOZA

Phone number

(632) 928-88-92

Email address

emb.mendoza@gmail.com

Have you completed a GHS implementation status report in previous years? *

Yes

No

Please provide the year when the last report was completed *

2015

Has there been any changes to the GHS implementation status in your economy since completing the last GHS implementation Status report? *

Yes

No

General Information

General Information

Has your economy implemented GHS for any chemical sector to date?

Yes

No

Is there an overall strategic plan for GHS implementation?

Yes

No

Please provide an overview of the strategic plan.

The Department of Environment and Natural Resources thru the Environmental Management Bureau DENR-EMB) has approved a workable policy implementing the Globally Harmonized System (GHS) for industrial chemicals production in 2015. A 4-phase GHS implementation approach following the 4th version of the Purple Book was developed. This was indicated under DAO 2015-009 issued last 19 May 2015.

Specifically, the 4-phase of GHS implementation include
2016 for Regulated and Controlled Chemicals
2017 for High Volume Chemicals (HVCs)
2018 for IMDG and IATA chemicals
2019 for mixtures

The strategic plan is based on this by phases approach consisting of capacity building/training (Basic, Intermediate and Advance). This 2017, close monitoring of importation of regulated and controlled chemicals and chemical substances at the Port of Entry (Bureau of Custom) shall be done. Also, the implementation of GHS format in the SDS of chemicals under DAO 2005-27 (Revised PCL).

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Please attach the strategic plan for GHS implementation.

File: DENR DAO -NO. 2015-09.pdf

Do you have a GHS co-ordinator to facilitate implementation within your economy?

Yes

No

Please provide your co-ordinators details

Organisation/Agency

DEPARTMENT OF TRADE AND INDUSTRY - BUREAU OF INVESTMENT

Name

DIR. EVARISTE CAGATAN

Phone number

(632) 890-93-29

Email address

EMCagatan@boi.gov.ph

Website

Do you have a hazard classification database?

Yes

No

Regulator Input - IWCS

Does your agency or organisation have responsibility for GHS implementation for this sector? *

Yes

No

Please provide the following details

Lead Government Agency

DENR - ENVIRONMENTAL MANAGEMENT BUREAU

Contact Person

EMMANUELITA D. MENDOZA

Phone number

(632) 928-88-92

Email address

emb.mendoza@gmail.com

Website

www.emb.gov.ph

Has GHS been implemented for this sector? *

Yes

No

Which edition of GHS is/was implemented?

Revised Edition 4 (2011)

When is/was GHS fully operational for this sector?

When approved in 2015, after a year of preparatory (by 2016), it was implemented in 2016 for regulated and controlled chemicals. Gradually, the necessary identification of High Volume Chemicals (HVCs) and formulation of HVCs policy shall be done for public consultation of multistakeholders and approval of DENR-EMB management. By 2017, necessary Terms of Reference (TOR) shall be again prepared for the policy to be drafted for GHS implementation of IMDG and IATA and approval on or before 2018. By 2019 - All chemicals and chemical substances' classification and labeling are expected to be prepared, approved and implemented.

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Have you finalised the relevant legislation to implement GHS?

Yes

No

Please provide the access details to the documentation. E.g. Website link, contact phone number

www.emb.gov.ph for the DAO 2015-09 and EMB 2015-011

Do you intend to adopt all GHS hazard classification building blocks as written in the Purple Book?

Yes

No

Please indicate the cut-off points you will be adopting where the choice is given in the Purple Book. E.g. Sensitisers

The cut-off points or the building block approach (BBA) for the Philippines is still for discussion and agreements among the four (4) sectors). There was the initial draft working paper with recommended cut-off points for industrial chemical production/ workplace prepared by DENR-EMB in collaboration with Samahan sa Pilipinas ng Industriyang Kimika (SPIK). This was already presented and partially discussed by the National Coordinating Council (NCC led by DTI-BOI. The draft shall be used as a draft working paper when all of the other sectors (workplace, agriculture, consumers and transport) are aready. The DTI-BOI has initiated the conduct of an Interagency Meeting held last 13 December 2016 in Dusit Thani Hotel. This shall provide leveling off information and perspective on the historical data and initial discussion of building block in the Philippines.

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Do you intend to adopt any non-GHS classification criteria? E.g. Classification of flammable/combustible liquids beyond 93° Celsius

Yes

No

Please provide full details of non-GHS criteria being considered for adoption

Generally, GHS criteria shall be implemented, however, since this is still for discussion by the 4 Sectors, we are just open to other consideration if possible.

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Will there be a risk assessment element overlayed on top of GHS classification on the label?

Yes

No

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the Safety Data Sheets (SDS)?

Pictograms

Yes

No

How many?

1

Hazard Statements

Yes

No

How many?

3

Precautionary Statements

Yes

No

How many?

3

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the label?

Pictograms

Yes

No

How many?

3

Hazard Statements

Yes

No

How many?

2

Precautionary Statements

Yes

No

How many?

3

How is the hierarchy of Pictograms, Hazard Statements and Precautionary Statements defined?

Depending on the classification of chemicals and chemical substances whether affecting on the 3 categories of hazards (health, physical and environmental. The hierarchy may start initially from 1, Pulmonary (carcinogen, respiratory sensitive mutagenicity, reproductive toxicity, target organ toxicity aspiration hazard), 2, - Skull (Acute Toxicity - severe)) 3, - Tree (Environmental effects) 4. - Flame (Explosives, organic peroxides, self-reactive substances), 5. - Corrosive to metal skin corrosion serious eye damage 6. - Flammable substances (self reactive, Pyrophoric & self-heating substances and organic peroxides 7. -. Comrpessed gas *(gases under pressure), 8. Exclamation Mark (Irritant - skin and eye, Acute toxicity (harmful), dermal sensitizer, Target Organ toxicity (narcotics or respiratory).

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Do you have any arrangements in place to deal with imported chemicals/products? E.g. Will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?

Yes

No

Do you have training and awareness activities planned?

Yes

No

What are your planned training and awareness activities?

This 2016, the EMB has already integrated the publication of the GHS policies on the regulation and Circular under DAO 2015-09 and EMB 2015-011(policy and the manual). For capacity Building, there were three (3) conducted Basic Trainings on GHS implementation dated 13 May 2016 (Regulators and Regulated community), 28 July 2016 (Regulators and Regulated community and 11 November 2016 (Regulated community).
This 1st Qtr. and 4th Qtr. of 2017, EMB planned an Orientation on GHS Implementation for Regulated and Controlled Chemicals to be given to the Examiners/inspectors at the Bureau of Custom (BOC) and the High Volume Chemicals, respectively. Also, an IECs or advisory shall be developed/prepared to promote the compliance monitoring of Regional Offices to various companies importing and using the PCL/CCO chemicals.

The planned training and awareness activities shall include DENR-EMB participation to the industry association's invitations for lectures and APEC CD attendance

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Are there any plans to exchange personnel with another economy to improve harmonisation of GHS implementation?

Yes

No

What are your plans to exchange personnel with another economy to improve harmonisation of GHS implementation?

No plan yet at this point in time. I believe that the plan is a good recommendation. If there shall be options for hands-on information and new experience to be offered for Regulators, this will be a good opportunity to learn deeper that will strengthens the existing regulation.
Exchange of information may be sustained for now regarding GHS thru this survey questionnaires and APEC Chemical Dialogue (CD) presentation and discussion. Detailed implementation of GHS may not be fully appreciated due to the Philippines' 4-Phase approach. We are just continually maintaining our linkages and collaboration for in depth knowledge and improvement.

651 of 1000 characters

Please list any specific issues of concern you have experienced so far during your GHS implementation efforts

To date, the Philippines thru the DENR and Department of Labor and Employment (DOLE) has already approved and implemented DAO 2014-68 and DAO 2015-09 for industrial workplace/production.
My apprehension was that our difficulty is internal in terms of convening the small scale industries specifically engages in mixing chemicals to develop a new product. For now, we shall be trying to identify them since GHS is not implemented for "mixtures" yet. Trying to closely link with chemical industry.
With mixtures, the establishment of Building Block Approach (BBA) is a challenge so we are interested to know more on this regard so as to prevent the impression of "disharmonization" of global system implementation.

Most countries are implementing GHS voluntarily, economies in Asia Pacific is implementing at least 1 Sector (either for workplace (Philippines, Japan, US, Canada) for transport (Singapore/Vietnam) among others. What will be the effects if BBA is not yet established?

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Do you have more information to supply that did not fit into the fields above?

Yes

No



Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel Nos. 929-6626 to 29; 929-6633 to 35
926-7041 to 43; 929-6252; 929-1669
Website: <http://www.denr.gov.ph> / E-mail: web@denrgov.ph

DENR ADMINISTRATIVE ORDER
No. 2015- 09

MAY 19 2015

SUBJECT : Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances

Pursuant to Sections 4(c) and 15 of Republic Act (RA) No. 6969, otherwise known as the "*Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990*", DENR Administrative Order (DAO) No. 29, Series of 1992, captioned "*Implementing Rules and Regulations of Republic Act 6969*", and the Joint DTI-DENR-DA-DOF-DOH-DILG-DOLE-DOTC Administrative Order (JAO) No. 01 Series of 2009 dated 25 May 2009, on "*The Adoption and Implementation of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)*", the following rules and new regulations, procedures and requirements for industrial toxic chemicals are hereby promulgated:

Section 1. Policy and Objectives. In reference to the State's policy under Section 2 of RA No. 6969, and pursuant to the objective set in Section 4(c) of the same law, this Order aims to inform and educate the populace regarding the hazards and risks attendant to the life cycle of toxic chemicals and other selected hazardous substances and mixtures, consistent with the following chemical safety objectives:

- 1.1 Develop and define the procedural guidelines and requirements to be followed by the concerned stakeholders in the preparation and submission of Safety Data Sheet (SDS) and labels of industrial toxic chemicals and mixtures.
- 1.2 Strengthen the implementation of proper labelling and re-labelling requirements of industrial toxic chemicals and mixtures.
- 1.3 Promote awareness and capabilities on the adoption of concepts and principles of the Globally Harmonized System (GHS) for safe use and management of industrial toxic chemicals and mixtures.

Sec. 2. Definition of Terms. As used in this Order, the following shall be defined as:

- 2.1 Chemical Control Order (CCO) - a policy issuance that prohibits, limits or regulates the use, manufacture, import, transport, process, storage, possession and wholesale of priority chemicals that the DENR has determined to be regulated, phased-out or banned due to the serious risks they pose to public health, workplace, and the environment.
- 2.2 Chemical - any organic or inorganic substances of a particular molecular identity including any element or uncombined chemical and any combination of such substances, or any mixture of two, excluding radioactive materials.

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- 2.3 Chemical Abstract Service (CAS) Registry Number – unique numeric identifier code assigned to a substance when it enters the CAS Registry database.
- 2.4 Chemical Substance - any organic or inorganic substances or a particular molecular identity, excluding radioactive materials, but including any element or uncombined chemical; and any combination of such substances occurring in whole or in part as a result of chemical reaction or occurring in nature.
- 2.5 Confidential Business Information (CBI) – an information considered as trade secret, i.e., an information which: (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; (b) has commercial value because it is secret; and (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret. (Reference: World Trade Organization (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), Article 39, paragraph 2).
- 2.6 Container - any bottle, box, drum, cylinder, bag, barrel, vessel, tank, among others, that contains hazardous chemical substances and mixtures.
- 2.7 GHS - a system for standardizing and harmonizing the classification and labelling of chemicals. It is a logical and comprehensive approach to: (a) defining health, physical and environmental hazards of chemicals; (b) creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and (c) communicating hazard information, as well as protective measures on labels and SDS.
- 2.8 Hazards - the inherent characteristics of chemical substances and mixtures that are existing in the workplace and in the environment, regardless of quantity that are potentially dangerous or which have the capacity to harm, i.e., its capacity to interfere with normal biological processes and its capacity to burn, explode, corrode, etc.
- 2.9 Harmonization - establishing a common and coherent basis for hazards classification and communication of chemicals, and the appropriate elements relevant to means of transport, consumers, workers and environmental protection can be selected/chosen.
- 2.10 International Air Transport Association (IATA) - is the trade association of the world's airlines which supports many areas of aviation activities and helps formulate industry policies on critical aviation issues.
- 2.11 International Maritime Dangerous Goods (IMDG) Code - a uniform international code for the transport of dangerous goods by sea, covering such matters as packing, containers, traffic and storage, with particular reference to the segregation of incompatible substances.
- 2.12 International Union of Pure and Applied Chemistry (IUPAC) - a long-standing global authority on chemical nomenclature and terminology. Identification of substances by their IUPAC name is widespread practice worldwide and provides the standard basis for identifying substances in an international and a multilingual context (Reference: EC 1272/2008).

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- 2.13 Label - an appropriate group of written, printed or graphic information elements concerning a hazardous product, selected as relevant to the target sector(s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product (Reference: UN GHS of Classification and Labelling of Chemicals).
- 2.14 Mixture - a solution composed of two or more chemicals/chemical substances in which they do not react (Reference: UN GHS of Classification and Labelling of Chemicals).
- 2.15 New chemical - any chemical substance imported into or manufactured in the country after 31 December 1993, which are not included in the Philippine Inventory of Chemicals and Chemical Substances (PICCS) and re-nominated and distributed by the DENR-EMB in 1995.
- 2.16 Priority Chemical List (PCL) – a list of existing and new chemicals that DENR has determined to have potential risks to public health, workplace and environment.
- 2.17 Pre-Manufacture and Pre-Importation Notification (PMPIN) - a process of review of notifications prior to manufacture and importation activities of new chemicals or more chemical substances undertaken by a Chemical Review Committee (CRC).
- 2.18 Precautionary statement - a phrase and/or pictogram, which describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product, improper storage or handling of hazardous product.
- 2.19 Product Identifier – the name or number used for a hazardous product on a label or in the SDS, by which the product user can identify the substance or mixture within a particular use setting e.g., transport, consumer or workplace.
- 2.20 Regulatory Permit/Clearance/Certification - an official document issued by the Environmental Management Bureau (EMB), giving authorization to industrial facilities to import, distribute, use, and transport chemicals / chemical substances and dispose hazardous wastes.
- 2.21 Safety Data Sheet – a document prepared by the manufacturer that contains important physical characteristics, ecological, health, safety and toxicological information on chemical substances or mixtures, or ingredients used at the workplace, transported, and utilized by consumer.
- 2.22 Toxic chemicals – substances or mixtures that are harmful to the environment and/or to human health on short-term or long-term bases if inhaled, swallowed, or absorbed through the skin.
- 2.23 United Nations Recommendations on the Transport of Dangerous Goods (UN RTDG) - international and domestic requirements for chemical packaging and transportation, and the category and code stipulated for transportation, including dangerous goods code, packaging category, packaging mark, packaging methods, UN code and matters needing attention for transportation (Reference: UN Recommendations on the Transport of Dangerous Goods Orange Book).

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- 2.24 Worker - any person from an industrial or service sector exposed to industrial toxic chemicals and mixtures, (e.g., laboratory personnel, emergency responder, transporter, warehouse staff, etc).

Sec. 3. Scope and Coverage. This Order shall cover all toxic chemical substances and mixtures manufactured, imported, distributed, used, stored and transported in the Philippines. These include toxic chemicals and chemical substances under the priority chemical list, chemical control order, high volume toxic chemicals, dangerous chemicals identified under IATA and IMDG and mixtures used by the industrial sector. This Order shall also address the classification, labelling and SDS requirements in order to convey information on the chemical hazards as well as to protect the public and the environment from their potential health risks and effects.

Sec. 4. Implementation Timeline. Complete and strict compliance with this Order for the following chemicals shall be in accordance with the following schedule:

Chemicals	Effectivity
4.1 Single substances and compounds covered under CCO and PCL Chemicals initially listed	2016
4.2 High Volume Toxic Chemicals	2017
4.3 Toxic Chemicals under the IATA and IMDG list of Dangerous Goods	2018
4.4 Mixtures	2019

Sec. 5. General Procedures and Requirements. In addition to the general requirements under Title II of DAO No. 29, Series of 1992, and other pertinent DAOs for various controlled chemicals, the following requirements and procedures on SDS preparation and labelling of toxic chemicals and mixtures are imposed:

5.1 Preparation and Submission of SDS and Labels

5.1.1 All chemical importers, manufacturers, suppliers and distributors shall prepare SDS and labels for all covered industrial toxic chemical and mixtures which meet the harmonized criteria for physical, health and environmental hazards under GHS.

5.1.2 All chemical importers, manufacturers, suppliers and distributors shall submit SDS and labels using GHS format when securing permits, licenses and clearances, duly transmitted with a notarized letter assuming full accountability and in accordance with the standard operating procedures (SOPs).

5.2 Screening, Review and Verification

5.2.1 SDS and labels submitted shall be initially screened for GHS compliance by the Chemical Management staff of EMB and reviewed by the GHS Review Committee. Verification by the GHS Review Committee may be undertaken, if necessary.

5.2.2 Information sources from recognized international organizations and principals may be used for verification.

5.3 Inspection

5.3.1 SDS of all toxic chemicals used shall be accessible and available to all workers at all times.

- 5.3.2 All covered toxic chemicals and mixtures shall be labeled and marked visibly.
- 5.3.3 Appropriate pictograms, signal words, hazard and precautionary statements shall be placed at the storage facility/premises and on the transportation/vehicle.
- 5.4 Training on the interpretation/identification of labels and use of SDS shall be conducted by a competent person within the company, in accordance with the GHS requirements/ guidelines, to ensure that information is properly understood by the workers.

Sec. 6. Specific Requirements and Standards. The following detailed components and elements should be indicated in the hazard communication of all industrial toxic chemicals and mixtures expressed through labels and SDS:

6.1 Labelling or Re-labelling Requirements

6.1.1 The importer, manufacturer, supplier and distributor shall ensure that each container of chemical substances within the premise/facility and in transport is labeled, tagged or marked.

6.1.2 GHS Labels shall contain the appropriate product identifier, supplier identifier, chemical identity, symbols, pictograms, signal words, hazard and precautionary statements, placed at the storage facility/premises, and on the transportation/vehicle to clearly convey the hazards and risks and important information about the chemical substances and mixtures.

6.1.2.1 Product identifiers /declaration of ingredients:

6.1.2.1.1 The name or number used for a hazardous product on a label shall be consistent with the composition declared in SDS.

6.1.2.1.2 The substance or mixture shall include the chemical identity of the substances, consistent with the composition declared in SDS.

6.1.2.1.3 UN number proper shipping shall be used on the package if a substance or mixture is covered under UN RTDG.

6.1.2.1.3 The labels for containers of industrial toxic chemical substances or mixtures must clearly indicate the ingredients unless covered by the CBI agreement.

6.1.2.2 Supplier identification:

The name, address and telephone number of the manufacturer or supplier of the substance or mixture shall be indicated on the label, consistent with the information used in SDS.

6.1.2.3 Chemical Identity:

The labels shall also include the chemical identity as determined by IUPAC and by the CAS Registry number or technical name.

6.1.2.4 Symbols:

6.1.2.4.1 This governs use and reproduction of the pictograms and standard symbols in GHS.

6.1.2.4.2 The GHS Hazard pictograms used shall be in the shape of a square, set at point, and in white, red and black colors.

6.1.2.4.3 For health hazards, the following precedence shall apply:

6.1.2.4.3.1 If the skull and crossbones apply, the exclamation mark shall not appear.

6.1.2.4.3.2 If the corrosive symbol applies, the exclamation mark shall not appear where it is used for skin or eye irritation.

6.1.2.4.3.3 If the health hazard symbol appears for respiratory sensitization, the exclamation mark shall not appear where it is used for skin sensitization or for skin or eye irritation.

6.1.2.5 Signal word:

6.1.2.5.1 This is a word that expresses the relative severity of hazard (level of hazard), which warns the users of the potential impacts. Signal words used are "*Danger*" and "*Warning*". However, if the signal word "*Danger*" applies, the signal word "*Warning*" should not appear.

6.1.2.5.2 Use of signal word depends on the result of the classification based on the criteria for GHS.

6.1.2.6 Hazard statements:

6.1.2.6.1 A complete hazard statement shall consist of the hazard statement, including the optional use of a hazard statement code (H-Code).

6.1.2.6.2 There will be a single harmonized statement for each hazard category within each hazard class.

6.1.2.6.3 Hazard statement depends on the result of classification based on the criteria for GHS.

6.1.2.6.4 All assigned hazard statements shall appear on the label, except for the following conditions:

6.1.2.6.4.1 If the statement H410 "*Very toxic to aquatic life with long lasting effects*" is assigned, then the statement H400 "*Very toxic to aquatic life*" may be omitted.

6.1.2.6.4.2 If the statement H411 "*Toxic to aquatic life with long lasting effects*" is assigned, then the statement H401 "*Toxic to aquatic life*" may be omitted.

6.1.2.7 Precautionary statements:

6.1.2.7.1 A complete precautionary statement shall consist of the precautionary statement, including the optional use of a precautionary statement code (P-Code).

6.1.2.7.2 Precautionary statements shall include prevention, response in cases of accidental spillage and exposure, handling, storage and disposal information.

6.1.2.7.3 All assigned precautionary statements shall appear on the label, except for the following conditions:

6.1.2.7.3.1 If the statement H412 "*Harmful to aquatic life with long lasting effects*" is assigned, then the statement H402 "*Harmful to aquatic life*" may be omitted.

6.1.2.7.3.2 If the statement H314 "*Causes severe skin burns and eye damage*" is assigned, then the statement H318 "*Causes serious eye damage*" may be omitted.

6.1.2.7.4 GHS label sizes and requirements shall depend on the size of the container. The minimum label dimensions are based on the container size in which the labels and sizes specifications are given in Guidance Manual on Labeling.

6.2 SDS Requirements

6.2.1 Identification of the toxic substance or mixture and the manufacturer or supplier:

6.2.1.1 Name of the substance or mixture preparation;

6.2.1.2 Complete name, address and telephone number of the manufacturer or supplier;

6.2.1.3 Recommended use(s) of the chemical substance or mixture;

6.2.1.4 Restrictions of use(s) of the chemical substance or mixture; and



6.2.1.5 Emergency information services and phone/contact numbers of the manufacturer, importer, supplier or local distributor.

6.2.2 Hazards identification:

6.2.2.1 Description of the hazards of the substance/mixture;

6.2.2.2 Appropriate signal word and hazard statements;

6.2.2.3 Precautionary statements associated with hazards described in this section; and

6.2.2.3 Hazard symbols may be provided as pictograms or graphical reproduction of the symbols in red, black and white background with the meaning of the symbol.

6.2.3 Composition and information on ingredients:

6.2.3.1 The chemical shall be identified by its:

6.2.3.1.1 CAS Registry Number;

6.2.3.1.2 IUPAC names, CAS number, Brand names as may be appropriate; and

6.2.3.1.3 Product code.

6.2.3.2 Impurities and stabilizing additives, which are classified and which contribute to the classification of the substance;

6.2.3.3 Concentration or concentration ranges of all hazardous ingredients, hazardous to health or the environment within the context of GHS, and are present above their cut-off levels; and

6.2.3.4 Ranges of percentages of chemical in descending order by mass or by volume.

6.2.4 First-aid measures:

6.2.4.1 Provide first-aid instructions by relevant routes of exposure (e.g. inhalation, skin and eye contact and ingestion):

6.2.4.1.1 Immediate medical attention is required and if delayed, effects can be expected after exposure;

6.2.4.1.2 Movement of the exposed individual to an area where there is fresh air;

6.2.4.1.3 Removal and handling of clothing and shoes from the individual; and

6.2.4.1.4 Personal protective equipment (PPE) should be used by first-aid responders.

6.2.4.2 Provide information on the most important immediate and chronic (delayed) symptoms/effects.

6.2.4.3 Provide information on clinical testing and medical monitoring for delayed effects, specific details on antidotes (if known) and contraindications.

6.2.5 Fire-fighting measures:

6.2.5.1 Provide information on the appropriate fire extinguishing media and indicate any inappropriate extinguishing media for a particular situation involving the substance or mixture;

6.2.5.2 Provide measures against specific hazards that may arise from the chemical, such as hazardous combustion products that form when the substance or mixture burns, toxic fumes of carbon monoxide produced by burning or oxides of sulphur and nitrogen produced during combustion; and

6.2.5.3 Protective actions to be taken during the fire-fighting and appropriate PPE to be used.

6.2.6 Accidental release measures:

6.2.6.1 Provide emergency procedures and appropriate PPEs for any other issues related to spills and releases;

6.2.6.2 Methods and materials used for containment and clean-up techniques; and

6.2.6.3 Environmental Precautions.

6.2.7 Handling and storage:

6.2.7.1 Proper instructions and consideration on the safe handling and storage of substances or mixtures on:

6.2.7.1.1 Ventilation requirements;

6.2.7.1.2 Specific designs for storage rooms/ vessels;

6.2.7.1.3 Quantity limits under storage conditions; and

6.2.7.1.4 Packaging compatibilities.

6.2.7.2 Conditions for safe storage include:

6.2.7.2.1 Any information related to protection against natural disasters/risks;

6.2.7.2.2 Incompatibilities to avoid explosive atmosphere, corrosive conditions, flammability hazards, evaporative conditions, incompatible substances or mixtures, and potential ignition sources; and

6.2.7.2.3 Measures against the effects of weather conditions, ambient pressure, temperature, sunlight, humidity and vibration.

6.2.7.3 Advice on how to maintain the integrity of the substance or mixture by the use of stabilizers and anti-oxidants.

6.2.8 Exposure controls and personal protection:

6.2.8.1 Identify the PPE needed to minimize the potential for illness or injury due to exposure to the substance or mixture.

6.2.8.2 Specify the type of PPE where special requirements may exist, consistent with occupational hygiene practices, and in conjunction with other control measures, including engineering controls, ventilation and isolation

6.2.8.3 Specify appropriate exposure control measures related to the intended modes of use of the substance or mixture.

6.2.9 Physical and chemical properties:

Identify the following properties and specify appropriate units of measure and/or reference conditions and the method of determination for the interpretation of the numerical value:

6.2.9.1 Appearance (physical state, colour etc);

6.2.9.2 Odor;

6.2.9.3 Odor threshold;

6.2.9.4 pH;

6.2.9.5 Melting point and freezing point;

6.2.9.6 Initial boiling point and boiling range;

6.2.9.7 Flash point;

6.2.9.8 Evaporation rate;

6.2.9.9 Flammability (solid, gas);

6.2.9.10 Upper/lower flammability or explosive limits;

6.2.9.11 Vapour pressure ;

6.2.9.12 Vapour density;

6.2.9.13 Relative density;

6.2.9.14 Solubility(ies);

6.2.9.15 Partition coefficient n-octanol/water;

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- 6.2.9.16 Auto-ignition temperature;
- 6.2.9.17 Decomposition temperature; and
- 6.2.9.18 Viscosity

6.2.10 Stability and Reactivity:

- 6.2.10.1 Chemical stability;
- 6.2.10.2 Hazardous reactions;
- 6.2.10.3 Conditions to avoid (e.g. static discharge, shock or vibration);
- 6.2.10.4 Incompatible materials;
- 6.2.10.5 Hazardous decomposition products; and
- 6.2.10.6 Reactivity information may be based on general data for the class or family of chemical if such data adequately represents the anticipated hazard of the substance or mixture.

6.2.11 Toxicological information:

- 6.2.11.1 Concise and complete description of the various toxicological (health) effects and the available data used to identify these effects;
- 6.2.11.2 Likely routes of exposure (e.g. inhalation, ingestion, skin and eye contact);
- 6.2.11.3 Symptoms related to the physical, chemical and toxicological characteristics;
- 6.2.11.4 Immediate or delayed effects expected after short or long-term exposure;
- 6.2.11.5 Acute and chronic health effects relating to human exposure to the substance or mixture;
- 6.2.11.6 If human data are not available, animal data should be summarized. Identify data source; and
- 6.2.11.7 Numerical measures of toxicity (such as acute toxicity estimates).

6.2.12 Ecological information:

- 6.2.12.1 Ecotoxicity (aquatic and terrestrial, where available);
- 6.2.12.2 Persistence and degradability;
- 6.2.12.3 Bioaccumulative potential;
- 6.2.12.4 Mobility in soil; and

6.2.12.5 Other adverse effects to the environment, such as:

- 6.2.12.5.1 Environmental fate;
- 6.2.12.5.2 Ozone depleting potential;
- 6.2.12.5.3 Photochemical ozone creation potential;
- 6.2.12.5.4 Endocrine disrupting potential; and
- 6.2.12.5.5 Global warming potential.

6.2.13 Disposal consideration:

Description of waste residues and information on safe handling and methods of disposal, including the disposal of any contaminated packaging.

6.2.14 Transport/Shipment information:

- 6.2.14.1 UN number;
- 6.2.14.2 UN Proper shipping name;
- 6.2.14.3 Transport Hazard class(es);
- 6.2.14.4 Packing group, if applicable;
- 6.2.14.5 Marine pollutant (Yes/No);
- 6.2.14.6 Special precautions, which a user needs to be aware of or needs to comply with, in connection with transport or conveyance, either within or outside their premises; and
- 6.2.14.7 Statement on the unavailability of relevant information.

6.2.15 National regulations and references:

- 6.2.15.1 Indicate safety, health and environmental regulations specific for the chemical substance or mixture in question; and
- 6.2.15.2 Specify if the product is under a CCO and PCL for local chemical substances or mixtures.

6.2.16 Other information:

- 6.2.16.1 SDS must be presented in English;
- 6.2.16.2 Information on preparation and revision of SDS (e.g. pages and date of issuance, date of revision and revision number);
- 6.2.16.3 An updating of SDS every five (5) years or earlier is a must where there are known changes in product composition that may affect the classification of the substances;

6.2.16.4 SDS shall be composed of sixteen (16) sections, in the order of arrangement and presentation within SDS document based on GHS;

6.2.16.5 Key/legend to abbreviations and acronyms used in SDS; and

6.2.16.6 Literature references and sources of data compiled in SDS.

Sec. 7. GHS Review Committee. A collegial body composed of a multi-sectoral group from the academe, industry, concerned EMB-Regional Office, chemical management group, research and development group and concerned government agencies shall be created through a Special Order to form the GHS Review Committee. The Committee shall review and evaluate the classification, appropriate chemical labelling and SDS in accordance with the adopted GHS. Its composition with duties and responsibilities shall be approved prior to its operation. The Committee shall be headed by the EMB Director, with the Chemical Management Section acting as the Secretariat.

Sec. 8. Confidentiality of Business Information. CBI claims shall be limited to the names of chemicals and their concentrations in mixtures. The rules for CBI shall take priority over the rules for product identification.

No disclosure of any information shall be done except for:

8.1 Instances when the provisions for CBI protection compromise the health and safety of users; and

8.2 Emergency situations.

Sec. 9. Transition Program. To support the effective implementation of this Order, the following activities shall be undertaken:

9.1 Development of capability building program that will initiate research to support the implementation period for high volume chemicals and mixtures;

9.2 Continuing training on GHS courses (basic, intermediate and advance) as well as information, education and communication (IEC) efforts; and

9.3 Discussion/consultation on the building blocks (among sectors) of the country through the National Coordinating Council (Joint Administrative Order 2009-1).

Sec. 10. Revision of Requirements. The DENR, in coordination with other concerned agencies, may review, revise, modify, update and supplement the requirements and procedures applicable to this Order, particularly upon the implementation of GHS concept and principles by majority of industrialized countries.

Sec. 11. Monitoring Procedure. Compliance with the requirements established in this Order shall be monitored regularly by the EMB in collaboration with the GHS Review Committee.

Sec. 12. Penalty Clause. Any person/s found violating any of the provisions specified in this Order shall be subject to administrative violations and fines under Section 15 of RA No. 6969, as well as Section 43, Chapter XII, Title V of DAO 29, Series of 1992, and other existing pertinent laws.

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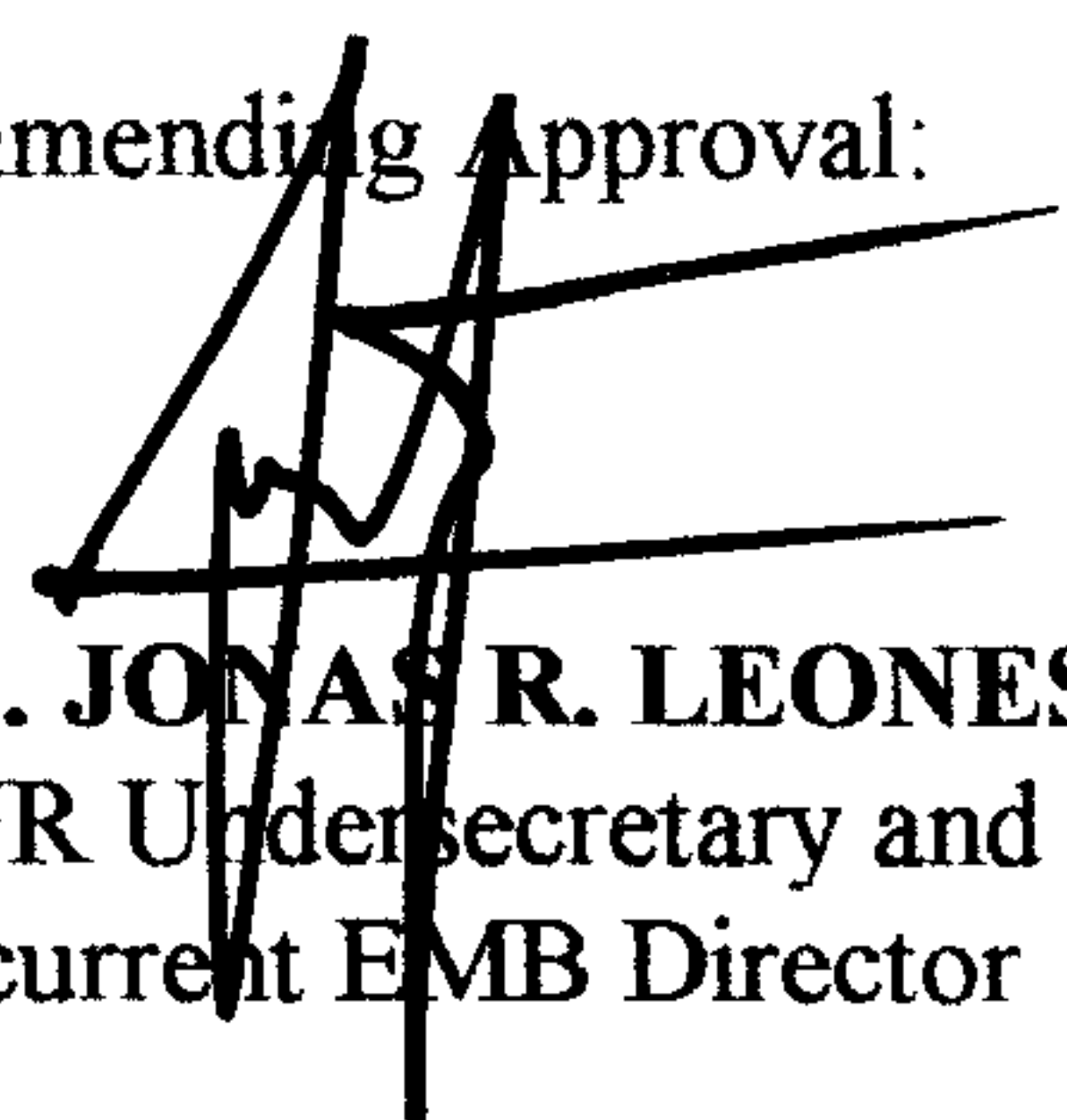
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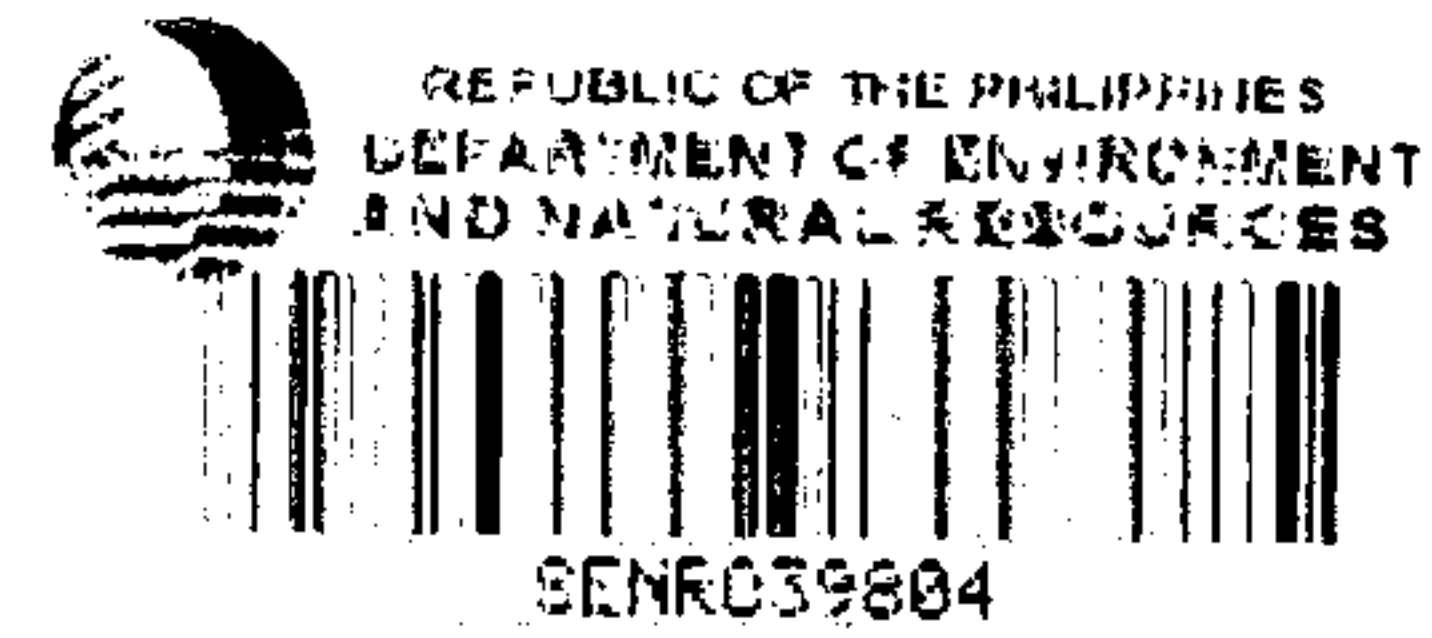
Sec. 13. Separability Clause. Should any provision or portion of this CCO be declared unconstitutional or invalid, all other provisions of this CCO shall remain valid and enforceable.

Sec. 14. Effectivity. This Order shall take effect fifteen (15) days after publication in the Official Gazette or in a newspaper of general circulation and upon acknowledgment of receipt of a copy thereof, by the Office of the National Administrative Register (ONAR).


RAMON J.P. PAJE
Secretary

Recommending Approval:


ATTY. JONAS R. LEONES
DENR Undersecretary and
concurrent EMB Director



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Attachment 8.2 – Corrigenda

1. On page 5 Is there maximum number of Pictograms, Hazard Statements and Precautionary Statements on the SDS?

My answer is NO instead of YES. The number of pictograms, hazard statement and precautionary statements depends on what hazard properties of chemicals or mixtures. Also, the Philippines has not yet set the Building Block. The questions on how many should be blank.

2. On page 6, is there maximum number of Pictograms, Hazard Statements and Precautionary Statements on the label?

My answer is NO instead of YES. Depends on the nature and number of hazards of a chemical and also due to the absence Building Block in the country.

3. On page 6, how is the hierarchy of Pictograms, Hazard Statements and Precautionary Statements defined

The hierarchy of Pictograms, Hazards and Precautionary Statements is based on precedence. For example, if the skull and crossbones is used, then the exclamation mark should not be used for skin and eye irritation. If hazard symbol for respiratory sensitization is used, the exclamation mark should not appear for skin sensitization or eye or skin irritation. However, for hazard and precautionary statements we just follow the Purple Book guidance.

4. On page 7, We also would like to include the Training on GHS Intermediates for our Regulators conducted last 21-23 March 2017 at Hive Hotel, Quezon City.



Global Harmonization System (GHS) for Chemical Labelling SmartForm

Asia-Pacific Economic Cooperation

Tracking Code: **T52252R**

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Introduction

Responding for

Please select your economy *

Russia

How are you responding *

- General Information
- As a Regulator for the Industrial Workplace Chemicals Sector
- As a Regulator for the Consumer Products Sector
- As a Regulator for the Agricultural Chemicals Sector
- From Industry for the Industrial Workplace Chemicals Sector
- From Industry for the Consumer Products Sector
- From Industry for the Agricultural Chemicals Sector

Respondent details

Organisation/Agency

CIS Center

Name

Natalia Druzhinina

Phone number

+7 499 705 14 84

Email address

n.druzhinina@ciscenter.org

Have you completed a GHS implementation status report in previous years? *

Yes

No

Please provide the year when the last report was completed *

2016

Has there been any changes to the GHS implementation status in your economy since completing the last GHS implementation Status report? *

Yes

No

General Information

General Information

Has your economy implemented GHS for any chemical sector to date?

Yes

No

Is there an overall strategic plan for GHS implementation?

Yes

No

Do you have a GHS co-ordinator to facilitate implementation within your economy?

Yes

No

Please provide your co-ordinators details

Organisation/Agency

Ministry of Industry and Trade of the Russian Federation

Name

Mr. Sergey Tsyb

Phone number

+7 (495) 980-28-44

Email address

Website

Do you have a hazard classification database?

Yes

No

Regulator Input - IWCS

Industrial Workplace Chemicals Sector

Does your agency or organisation have responsibility for GHS implementation for this sector? *

Yes

No

Please provide the following details

Lead Government Agency

Contact Person

Phone number

Email address

Website

Has GHS been implemented for this sector? *

Yes

No

Which edition of GHS is/was implemented?

When is/was GHS fully operational for this sector?

GOST 32419-2013 Classification of chemicals. General requirements
GOST 32423-2013 Mixtures classification of hazard for health
GOST 32424-2013 Classification of chemicals for environmental hazards. General principles
GOST 32425-2013 Mixtures classification of hazard for environmental
GOST 30333-2007 Chemical production safety passport. General requirements
GOST 31340-2013 Labelling of chemicals. General requirements
R 50.1.102-2014 Compilation and execution of safety data sheet of chemical products
R 50.1.101-2014 Guidance on the selection of precautionary statements for the labelling in accordance with GOST 31340-2013

1000 of 1000 characters

Have you finalised the relevant legislation to implement GHS?

Yes

No

Please provide the access details to the documentation. E.g. Website link, contact phone number

Technical Regulation <http://pravo.gov.ru/laws/acts/77/49484957.html>

Do you intend to adopt all GHS hazard classification building blocks as written in the Purple Book?

Yes

No

Please indicate the cut-off points you will be adopting where the choice is given in the Purple Book. E.g. Sensitisers

Respiratory sensitizer $\geq 0.1\%$
Skin sensitizer $\geq 0.1\%$
Respiratory and skin sensitization without division into sub-category.
Category 2 carcinogen $\geq 0.1\%$
Reproductive toxicant (Cat. 1A, Cat 1B, Cat.2) and add.cat. for effects on or via lactation $\geq 0.1\%$
STOT SE Cat 1, Cat 2: $\geq 10\%$; Cat 3 $\geq 20\%$ with expert judgement
STOT RE Cat 1, Cat 2: $\geq 10\%$

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Do you intend to adopt any non-GHS classification criteria? E.g. Classification of flammable/combustible liquids beyond 93° Celsius

Yes

No

Will there be a risk assessment element overlayed on top of GHS classification on the label?

Yes

No

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the Safety Data Sheets (SDS)?

Pictograms

Yes

No

Hazard Statements

Yes

No

Precautionary Statements

Yes

No

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the label?

Pictograms

Yes

No

Hazard Statements

Yes

No

Precautionary Statements

Yes

No

How is the hierarchy of Pictograms, Hazard Statements and Precautionary Statements defined?

There is no established hierarchy. All of these elements as well as signal word are required to be on a label for chemicals taking into account the precedence rules for their allocation according to the GHS (implemented through GOST 31340-2013). To save space on the label it is recommended to use not more than six precautionary statements if they can fully reflect the nature and the severity of hazards of chemicals (R 50.1.101 – 2014 Guidance on the measures selection of precautionary statements for the labelling in accordance with GOST 31340-2013).

555 of 1000 characters

Do you have any arrangements in place to deal with imported chemicals/products? E.g. Will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?

Yes

No

What are your arrangements to deal with imported chemicals/products?

According to Resolution by the EEC #229 from 28.05.2010, all imported chemicals from section II of list (http://www.tsouz.ru/KTS/KTS17/Pages/P1_299.aspx) must be in compliance with sanitary-epidemiological and hygienic requirements and this compliance must be confirmed by state registration.

293 of 1000 characters

Do you have training and awareness activities planned?

Yes

No

What are your planned training and awareness activities?

Trainings on classification, labelling and Russian SDS creation are provided by CIS Center on regular basis. For more information, please visit website <http://www.ciscenter.ru/index.php/ru/>

190 of 1000 characters

Are there any plans to exchange personnel with another economy to improve harmonisation of GHS implementation?

Yes

No

Please list any specific issues of concern you have experienced so far during your GHS implementation efforts

Due implementation we faced with the following concerns:

- 1) Russian laboratories has no appropriate equipment for testing according to GHS
- 2) Industry is not ready to comply with the GHS requirements because of absence of data on chemicals for comparison with the GHS criteria
- 3) The lack of understanding by industry of GHS necessity

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Do you have more information to supply that did not fit into the fields above?

Yes

No



Global Harmonization System (GHS) for Chemical Labelling SmartForm

Asia-Pacific Economic Cooperation

Tracking Code: **XPV3GM7**

Your form has been successfully submitted. Please keep a copy of this acknowledgement for your records.



Date and Time: **13 Jan 2017 6:02:12 PM**

Receipt Number: **global-harmonization-30**

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Introduction

Responding for

Please select your economy *

Singapore

How are you responding *

- General Information
- As a Regulator for the Industrial Workplace Chemicals Sector
- As a Regulator for the Consumer Products Sector
- As a Regulator for the Agricultural Chemicals Sector
- From Industry for the Industrial Workplace Chemicals Sector
- From Industry for the Consumer Products Sector
- From Industry for the Agricultural Chemicals Sector

Respondent details

Organisation/Agency

Ministry of Manpower

Name

Veronica Chow

Phone number

66925105

Email address

veronica_chow@mom.gov.sg

Have you completed a GHS implementation status report in previous years? *

Yes

No

Please provide the year when the last report was completed *

2014

Has there been any changes to the GHS implementation status in your economy since completing the last GHS implementation Status report? *

Yes

No

Regulator Input - IWCS

Industrial Workplace Chemicals Sector

Does your agency or organisation have responsibility for GHS implementation for this sector? *

Yes

No

Please provide the following details

Lead Government Agency

Ministry of Manpower

Contact Person

Veronica Chow

Phone number

66925105

Email address

veronica_chow@mom.gov.sg

Website

Has GHS been implemented for this sector? *

Yes

No

Which edition of GHS is/was implemented?

Revised Edition 4 (2011)

When is/was GHS fully operational for this sector?

2106 july

9 of 1000 characters

Have you finalised the relevant legislation to implement GHS?

Yes

No

Please provide the access details to the documentation. E.g. Website link, contact phone number

Www.wshc.gov.sg

Do you intend to adopt all GHS hazard classification building blocks as written in the Purple Book?

Yes

No

Please describe the building blocks that will be adopted

All hazard classes as building block approach with exceptions, details of BBA are found in Singapore Standards 586 part 2.

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Do you intend to adopt any non-GHS classification criteria? E.g. Classification of flammable/combustible liquids beyond 93° Celsius

Yes

No

Will there be a risk assessment element overlayed on top of GHS classification on the label?

Yes

No

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the Safety Data Sheets (SDS)?

Pictograms

Yes

No

Hazard Statements

Yes

No

Precautionary Statements

Yes

No

Is there a maximum number of Pictograms, Hazard Statements and Precautionary Statements included on the label?

Pictograms

Yes

No

Hazard Statements

Yes

No

Precautionary Statements

Yes

No

How many?

6

How is the hierarchy of Pictograms, Hazard Statements and Precautionary Statements defined?

Precedence rules as per GHS document, and most severe statement applies for p statements.

90 of 1000 characters

Do you have any arrangements in place to deal with imported chemicals/products? E.g. Will you accept additional classification criteria (GHS or otherwise) not adopted by your economy?

Yes

No

What are your arrangements to deal with imported chemicals/products?

NA

2 of 1000 characters

Do you have training and awareness activities planned?

- Yes
- No

What are your planned training and awareness activities?

Awareness seminars, users and classification courses.

53 of 1000 characters

Are there any plans to exchange personnel with another economy to improve harmonisation of GHS implementation?

- Yes
- No

Please list any specific issues of concern you have experienced so far during your GHS implementation efforts

1. Allowing countries to pick their building blocks that caused disharmony.
2. Different countries using different versions of GHS doc at different times
3. Difficulties in classification due to different capabilities of users of chemicals and limited data.
4. Relabel of containers.
5. Authoring old Sds

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Do you have more information to supply that did not fit into the fields above?

- Yes
- No



Global Harmonization System (GHS) for Chemical Labelling SmartForm

Asia-Pacific Economic Cooperation

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Receipt Number: **global-harmonization-31**

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Introduction

Responding for

Please select your economy *

Singapore

How are you responding *

- General Information
- As a Regulator for the Industrial Workplace Chemicals Sector
- As a Regulator for the Consumer Products Sector
- As a Regulator for the Agricultural Chemicals Sector
- From Industry for the Industrial Workplace Chemicals Sector
- From Industry for the Consumer Products Sector
- From Industry for the Agricultural Chemicals Sector

Respondent details

Organisation/Agency

Singapore Chemical Industry Council Limited

Name

Yeung Cissie

Phone number

+65 6384 8798

Email address

cissie.yeung@shell.com

Have you completed a GHS implementation status report in previous years? *

Yes

No

Please provide the year when the last report was completed *

2014

Has there been any changes to the GHS implementation status in your economy since completing the last GHS implementation Status report? *

Yes

No

Industry Input - IWCS

Industrial Workplace Chemicals Sector

This section is for any industry associates who may wish to comment regarding the GHS implementation process.

Has it been easy to access all necessary information regarding GHS compliance?

Yes, all information available at public domain (www.wshc.gov.sg).

66 of 1000 characters

Are there specific issues that are limiting the progress of GHS implementation?

There may be some constrains on resources and time.

Not all countries have implemented GHS and thus it is challenging for the chemical users to obtain the GHS SDSs and labels from overseas suppliers. Many users of chemicals are required to (re) label according to local requirement. Users have to (re) author SDSs according to local requirement.

Not all countries adopted the same GHS version and building blocks like Singapore. Time and resources are required to (re) train users of chemicals to recognized the differences.

529 of 1000 characters

What are/were the expected costs for industry in the GHS implementation?

Expected costs to meet the requirement are : Training cost to ensure people equipped with the right skill set and understanding to carry out the GHS implementation for the company, cost to change or upgrade system to generate compliance GHS SDSs ; May need to re-label the products and work place label and cost to get consultant to carry out the GHS classification for complex chemicals.

391 of 1000 characters

If your economy has implemented GHS, is there any difference in expected cost prior to implementation and actual cost post-implementation of GHS?

Yes, there will be a cost difference. As more time and money will be spent during the first implementation of GHS on work processes and resources are needed to put in place.

The cost will be relatively lower for the maintenance of the work processes / system to sustain and revise the current system.

303 of 1000 characters

What are/were the expected benefits for industry through the GHS implementation?

To enhance the safety and health at the workplace and in doing so protecting the environment.
To facilitate chemical trade among the economies and be competitive in the region.

177 of 1000 characters

If your economy has implemented GHS, is there a difference in expected benefits prior to implementation and actual benefits post-implementation of GHS?

Yes, there is a difference as we have assumed all trading economies adopted the same building blocks and revisions as us. However, the disharmony has cost us business opportunities and lagged time.

The common end points of SDS and labeling provided consistent information on hazard communication to the users of chemicals.

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Organisation/Agency

Name

Phone number

Email address

Do you have more information to supply that did not fit into the fields above?

Yes

No

Attachment 1
Global Harmonization System (GHS) for Chemical Labelling SmartForm
Industry Input - Industrial Workplace Chemicals (IWCS)

Organisation/Agency: API
Name: Derek Swick
Phone number: +1 202 682 8341
Email address: swickd@api.org

Has it been easy to access all necessary information for compliance?

U.S. Issues

OSHA published requirements to implement the GHS on March 26, 2012. OSHA has gradually published HazCom 2012 implementation tools. OSHA published Hazard Classification Guidance in February 2016. OSHA has not yet finalized the Weight of the Evidence Guidance, published as a draft in February 2016. This guidance and the Compliance Directive were not available in time for companies to use in their HazCom 2012 compliance strategies. OSHA has not published all their HazCom 2012 letters of interpretation. OSHA has stated their intention to update HazCom 2012 to align with GHS Revisions 6 & 7 and a meeting to get stakeholder input was held. But OSHA has not specified a timeframe for the update.

OSHA has been holding meetings to obtain stakeholder input prior to UNSCEGHS meetings, which will impact future GHS revisions as well as OSHA Hazard Communication Standard (HCS) revisions. The UNSCEGHS and RCC processes are not transparent. Most UNSCEGHS positions and technical documents are developed/agreed in inter-sessional groups. Unless you are a member of these UNSCEGHS inter-sessional groups, this information is not available to stakeholders until it has been largely agreed upon and posted on the UNSCEGHS website.

Global Issues

It is not always possible to keep up to date and find necessary GHS compliance information from some APEC economies. Some countries/economies have restricted access to regulations, information, and/or websites to domestic companies. This may present potential trade barriers, particularly with respect to the non-discriminatory and national treatment provisions under the WTO. This also is contrary to the objectives of the GHS. As an example of restricted access, South Korea only allows password access to domestic companies.

Even when the regulations/legislation/standards are available, all of the information that is required for compliance is not always specified. For example, the GHS includes several options for mixture cut-off values and some countries include all options without specifying which is appropriate for compliance.

Sometimes implementation dates are published, but the related implementing regulations are not yet finalized, or the regulations are finalized but the transition period and implementation dates are not clear. Only the EU CLP has a clear schedule for implementing updates to the GHS via their ATP process.

Do you see any specific issues that are limiting the progress of GHS implementation?

U.S. Issues

- To achieve the goal of harmonization and reap the associated benefits, OSHA/governments should align with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries. The OSHA final GHS rule is generally aligned with the GHS, but there are several issues that are not aligned, e.g., mandatory precautionary statements, combustible dusts, Hazards Not Otherwise Classified (HNOCs), and the most current UN GHS aerosol requirements.
- Collaboration is needed among the U.S. Coast Guard, EPA, CPSC, OSHA, and DOT. DOT has

essentially implemented the necessary changes to align with the GHS, and OSHA has published the GHS final rule. However, EPA and CPSC are not making progress in implementing the GHS. Although CPSC finalized a revised definition of strong sensitizer, CPSC has stated that GHS implementation is on hold due to other priorities.

- The International Maritime Organization (IMO) activities related to SDSs do not promote global harmonization and a consistent SDS format. Currently, the Coast Guard regulations reference the OSHA HazCom 2012 SDS and the SOLAS MSDS as defined by MSC.286(86). If the US Coast Guard decides to incorporate SDSs format requirements into their regulations, they should consult with OSHA to ensure that the SDS format and content is harmonized with OSHA and the GHS.
- The HazCom 2012 guidance should have been available in time for companies to use in their HazCom 2012 compliance strategies. OSHA needs to publish all their HazCom 2012 letters of interpretation as soon as possible. OSHA has stated their intention to update HazCom 2012 to align with GHS Revisions 6 & 7 and a meeting to get stakeholder input was held. But OSHA has not specified a timeframe for the update.
- To promote globally harmonized classifications, the UNSCEGHS PCI group should address harmonization of interpretations of the GHS classification provisions (e.g., UVCBs) as well as developing classification examples.
- In order to have broad acceptance of a UN global list of classified chemicals, the UNSCEGHS should ensure that the guiding principles are addressed in the pilot program.

Global Issues:

- Companies classifying chemicals for hazard building blocks that have not yet been adopted by the economy should not be penalized. This would allow classification for the maximum number of building blocks and classification of their product in the same way across all economies.
- Economies should accept SDSs and labels based on more than one version of the UN GHS Purple Book for classification. For example, if an economy implements the 3rd edition of GHS, it could also accept the 4th and 5th editions of GHS, provided that the level of protection was the same or stronger with respect to the particular chemical.
- Any list of GHS classifications for chemicals by economies should be non-mandatory and for information. This would enable companies to utilize all the data available to them to classify their products in the same way across all economies as opposed to having to comply with mandatory, and sometimes varied, classifications.
- It might be useful to convene a working group to look at the possibility of harmonizing GHS mixture classification cut-off values/thresholds.
- To promote global harmonization, it might be useful to consider addressing harmonization of interpretations/application of the GHS.

What are the expected costs for industry in the implementation of GHS?

- Significant costs are anticipated for SDS revisions, re-labelling, re-distributing revised SDSs to customers, and employee training. Information Technology (IT) solutions (i.e., software) are available through major vendors offering SDS authoring systems supporting GHS. Although in many cases the software (i.e., algorithm) work is complete, country or regional differences in regulatory provisions may require upgrades.
- API member companies issue tens of thousands of SDSs that needed revision to meet the OSHA GHS final rule. For example, one API member company currently has approximately 4,500 SDSs for the U.S. market, all of which required revision under the OSHA GHS final rule. For this one company, approximately 10,000 U.S. employees would be affected, e.g., require updated training.
- When OSHA updates HazCom 2012 to align with GHS Revisions 6 & 7, the cost for industry to implement the updates will depend on which provisions are updated and the time allowed for the updating.
- Non-harmonized issues like HNOCs and combustible dusts add to the cost of doing business internationally. Non-harmonized SDS formats, e.g., the IMO format, also add to the cost of doing business internationally.

Costs for industry can be reduced by the following:

- To achieve the goal of harmonization and reap the associated benefits, OSHA/governments should align the HCS with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries/governments, e.g., SDS formats, combustible dusts, HNOCs, aerosols.
- OSHA/governments should be as consistent as possible with European Union (EU) GHS implementation and the GHS as negotiated at the UN, especially for hazard classes/categories for mixture cut-off values/concentration limits and for the effective dates and transition periods.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.

API suggests providing at least the following assistance materials:

- electronic guided learning tools with modules for awareness training, classification of chemicals, and training on pictograms;
- posters with pictograms and explanations (in multiple languages) for workplaces; and
- a reference table with the differing requirements around the globe.

Detailed technical guidance should be provided on cut-off interpretations and classification criteria for substances and mixtures. Easy to understand guidance should be issued on calculations of acute toxicity estimates, including example calculations.

If your economy has implemented GHS, is there any difference in expected cost prior to implementation and actual cost post-implementation of GHS?

Below are several areas where costs were generally not anticipated.

- Due to various GHS interpretations/applications, there have been challenges in labeling/packaging that were not anticipated.
- Because there is not total harmonization/consistency in GHS implementation, more SDSs/labels with specific country requirements are required than were anticipated
- The UN GHS is updated every 2 years. This updating frequency is considerably more than most countries updated their requirements in the past. How various countries would update their GHS requirements was generally not factored into planning for the GHS.

What are the expected benefits for industry through the implementation of GHS?

Expected benefits for industry through the implementation of the GHS include:

- Internationally harmonized hazard classification and communication will lead to increased worker protection, especially as the new hazard pictograms become recognized.
- Standardization will improve training and understanding of SDSs.
- Consistent information on SDSs will improve downstream hazard assessment activities.

The costs for industry can be reduced by the following:

- GHS must be implemented comprehensively and consistently across industries on a global basis.
- Governments should work closely with each other to ensure alignment to the UN-endorsed version of the GHS and to minimize country-specific deviations, e.g. combustible dusts and SDS formats.
- OSHA/governments need to ensure and set forth a process for U.S. stakeholder input at the earliest possible stage into future GHS technical decisions through negotiations at the UN Sub-Committee of Experts on the GHS (UNSCEGHS).
- OSHA/governments should support sector-specific guidance, including providing web links to relevant documents.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.

Important current impediments to harmonization include:

- The differences in GHS mixture classification cutoff values/thresholds between countries; (It might be useful to convene a working group to look at the possibility of providing harmonized

GHS mixture classification cutoff values/thresholds.)

- Different interpretations of how to apply the GHS classification criteria to UVCBs;
- The OSHA HazCom 2012 approach to combustible dusts; and
- The IMO SDS format.

If your economy has implemented GHS, is there a difference in expected benefits prior to implementation and actual benefits post-implementation of GHS?

- Variances in GHS implementation by countries, frequency of updating and country specific interpretations/applications generally were not anticipated. These may have somewhat reduced the actual benefits of GHS implementation.
- The GHS has focused more attention globally on hazard communication and its enforcement. More countries now have implemented hazard communication requirements.

Attachment 1
Global Harmonization System (GHS) for Chemical Labelling SmartForm
Industry Input – Agricultural Chemicals (ACS)

Organisation/Agency: API
Name: Derek Swick
Phone number: +1 202 682 8341
Email address: swickd@api.org

Has it been easy to access all necessary information for compliance?

U.S. Issues

The U.S. EPA has not yet implemented the GHS for agricultural chemicals (e.g., pesticides). The GHS information on the U.S. EPA website and in EPA presentations had been informative but has not been updated recently. As EPA starts to incorporate GHS elements into its regulations, it should be clear to stakeholders when EPA is aligning with OSHA HazCom 2012/GHS and when the EPA requirements deviate from OSHA/GHS, e.g., the proposed updates and revisions to the worker protection regulation for pesticides.

After OSHA published their final GHS Rule, the EPA published a timely Pesticide Registration Notice to aid in explaining the potential differences in pesticide and industrial sector labeling.

EPA has recently published information revising their EPCRA/SARA 311-312 Tier I/Tier II (40 CFR 370.66) reporting requirements to align with the new OSHA HazCom 2012 hazards.

Global Issues:

It is not always possible to keep up to date and find the necessary GHS compliance information from some APEC economies. Also, it is not always easy to understand which sectors are covered by the implementing regulations/legislation/standards. Some countries/economies have limited access to regulations, information, and/or websites to domestic companies only. This is contrary to the objectives of the GHS and may constitute a trade barrier.

Even when the regulations/legislation/standards are available, all of the information that is required for compliance is not always specified. For example, the GHS includes several options for mixture cut-off values and some countries include all options without specifying which is appropriate for compliance.

Sometimes implementation dates are published, but the related implementing regulations are not yet finalized, or the regulations are finalized but the transition period and implementation dates are not clear. Only the EU CLP has a clear schedule for implementing updates to the GHS via their ATP process.

In the case of pesticides, the FAO and WHO guidelines addressing classification and labelling of pesticides which take account of GHS provisions (2016 *FAO Guidelines on highly hazardous pesticides*, 2015 *FAO Guidelines on good labelling practice for pesticides*, 2009 *WHO recommended classification of pesticides by hazard and guidelines to classification*) are available on-line. These publications should be promoted globally to assist harmonized GHS implementation in the agriculture sector.

Do you see any specific issues that are limiting the progress of GHS implementation?

- GHS implementation for the labelling of agricultural pesticides is still at an early stage world-wide. For pesticides, the inclusion of GHS information in the *FAO Guidelines on Good Labelling Practice for Pesticides*, the *FAO Guidelines on Highly Hazardous Pesticides* and *WHO*

Recommended Classification of Pesticides publications is a step forward for GHS implementation. The APEC Chemical Dialogue could consider working with the UNSCEGHS, FAO and WHO to promote and disseminate this information.

- The use of risk-based labeling could also be an implementation issue.
- To achieve the goal of harmonization and reap the associated benefits, governments should align with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries.
- Collaboration is needed among Coast Guard, EPA, CPSC, OSHA, and DOT. DOT has essentially implemented the necessary changes to align with the GHS, and OSHA has published the GHS final rule. However, EPA and CPSC are not making significant progress in implementing the GHS. Although CPSC finalized a revised definition of strong sensitizer, CPSC has stated that GHS implementation is on hold due to other priorities. Non-harmonized issues like HNOCs and combustible dusts add to the cost of doing business internationally.
- As EPA incorporates elements of the GHS into their various regulations ["Protection in the Workplace" (40 CFR 721.63), "Hazard Communication Program" (40 CFR 721.72) and "Agricultural Worker Protection Standard" (40 CFR Part 170)], it should align with OSHA HazCom 2012/GHS as closely as possible, e.g., criteria, definitions, classification, SDS, etc. In EPA's proposed worker protection rule requiring SDSs, the SDSs should have the same classifications, format and information as OSHA HCS 2012 SDSs.
- EPA has recently aligned their EPCRA/SARA 311-312 Tier I/Tier II (40 CFR 370.66) reporting requirements with the new OSHA HazCom 2012 hazards.

What are the expected costs for industry in the implementation of GHS?

It is expected that initial implementation costs for industry will be significant. If harmonization is achieved, then cost savings can be realized in the future.

Costs for industry can be reduced by the following:

- To achieve the goal of harmonization and reap the associated benefits, governments should align with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.

If your economy has implemented GHS, is there any difference in expected cost prior to implementation and actual cost post-implementation of GHS?

The U.S. EPA has not yet implemented the GHS for agricultural chemicals (e.g., pesticides).

What are the expected benefits for industry through the implementation of GHS?

Expected benefits for industry through the implementation of GHS include:

- Internationally harmonized hazard classification and communication will lead to increased protection, especially as the new hazard pictograms become recognized.
- Standardization will improve training and understanding of hazards.

- Consistent information will improve downstream hazard assessment activities.

The following activities are needed to reduce the potential risks of not achieving benefits:

- Benefits will accrue if the GHS is implemented comprehensively and consistently across industries on a global basis.
- Governments should work together to ensure alignment to the UN endorsed version of the GHS and to minimize country-specific deviations.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.
- FAO/WHO information on pesticides that is aligned with the GHS needs to be promoted globally.

Important current impediments to harmonization include:

- The differences in GHS mixture classification cutoff values/thresholds between countries; (It might be useful to convene a working group to look at the possibility of providing harmonized GHS mixture classification cutoff values/thresholds.)
- Different interpretations of how to apply the GHS classification criteria to UVCBs;

If your economy has implemented GHS, is there a difference in expected benefits prior to implementation and actual benefits post-implementation of GHS?

The U.S. EPA has not yet implemented the GHS for agricultural chemicals (e.g., pesticides).

Attachment 1
Global Harmonization System (GHS) for Chemical Labelling SmartForm
Industry Input – Consumer Products (CPS)

Organisation/Agency: API
Name: Derek Swick
Phone number: +1 202 682 8341
Email address: swickd@api.org

Has it been easy to access all necessary information for compliance?

U.S. Issues

The GHS has not yet been implemented by the CPSC in the U.S. for consumer products. Information on the progress/status is not readily available to stakeholders. CPSC revised their definition of “strong sensitizer,” but the accompanying staff guidance document was not easy to access and has not yet been updated to consider comments received.

OSHA published a letter of interpretation stating that OSHA may consider the CPSC or any other agency-required label information as HazCom 2012 supplemental label information and provided clarification on including this type HazCom 2012 supplemental information on labels. CPSC has not made its position on CPSC/FHSA and HazCom 2012 dual labeling readily available.

Global Issues:

It is not always possible to keep up to date and find the necessary GHS compliance information from some APEC economies. Also, it is not always easy to understand which sectors are covered by the implementing regulations/legislation/standards. Some countries/economies have restricted access to regulations, information and/or websites to domestic companies only. This is contrary to the objectives of the GHS.

Even when the regulations/legislation/standards are available, all of the information that is required for compliance is not always specified. For example, the GHS includes several options for mixture cut-off values and some countries include all options without specifying which is appropriate for compliance.

Sometimes implementation dates are published, but the related implementing regulations are not yet finalized, or the regulations are finalized but the transition period and implementation dates are not clear. Only the EU CLP has a clear schedule for implementing updates to the GHS via their ATP process.

Do you see any specific issues that are limiting the progress of GHS implementation?

U.S. Issues

- For consumer products, the use of risk-based labeling for chronic effects could be an implementation issue. CPSC’s revised definition of “strong sensitizer” does not use risk in a manner that is consistent with the GHS.
- To achieve the goal of harmonization and reap the associated benefits, governments should align with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries.
- Collaboration is needed among Coast Guard, EPA, CPSC, OSHA, and DOT. DOT has essentially implemented the necessary changes to align with the GHS, and OSHA has published the final GHS rule. However, EPA and CPSC are not making significant progress in implementing the GHS. Although CPSC finalized a revised definition of strong sensitizer, CPSC has stated that GHS implementation is on hold due to other priorities. The IMO activities related to SDSs do not

promote global harmonization and a consistent SDS format. Currently, the Coast Guard regulations reference the OSHA HazCom 2012 SDS and the SOLAS MSDS as defined by MSC.286(86). If the US Coast Guard decides to incorporate SDSs requirements into their regulations, they should consult with OSHA to ensure that the SDS format and content is harmonized with OSHA and the GHS.

- While CPSC revised their definition of “strong sensitizer,” the definition, and suggested label elements are not aligned with the GHS/OSHA HazCom 2012. Although the revised “strong sensitizer” definition became effective on March 17, 2014, the “strong sensitizer” staff guidance document has not yet been updated to consider comments received during the rule making.

What are the expected costs for industry in the implementation of GHS?

It is expected that initial implementation costs for industry will be significant. If harmonization is achieved, then cost savings can be realized in the future.

Costs for industry can be reduced by the following:

- To achieve the goal of harmonization and reap the associated benefits, governments should align with the GHS as negotiated and seek to implement it in a manner that minimizes differences among countries.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.

If your economy has implemented GHS, is there any difference in expected cost prior to implementation and actual cost post-implementation of GHS?

The GHS has not yet been implemented by the CPSC in the U.S. for consumer products.

What are the expected benefits for industry through the implementation of GHS?

Expected benefits for industry through the implementation of GHS include:

- Internationally harmonized hazard classification and communication will lead to increased protection, especially as the new hazard pictograms become recognized.
- Standardization will improve training and understanding of hazards.
- Consistent information will improve downstream hazard assessment activities.

The following activities are needed to reduce the potential risks of not achieving the benefits:

- Benefits will accrue if the GHS is implemented comprehensively and consistently across industries on a global basis.
- Governments should work closely with each other to ensure alignment to the UN endorsed version of the GHS and to minimize country-specific deviations.
- Manufacturers should be allowed to use their own precautionary statements in addition to the precautionary statements in the GHS, which should be non-binding suggestions.

Important current impediments to harmonization include:

- The differences in GHS mixture classification cutoff values/thresholds between countries; (It might be useful to convene a working group to look at the possibility of providing harmonized

GHS mixture classification cutoff values/thresholds.)

- Different interpretations of how to apply the GHS classification criteria to UVCBs;

If your economy has implemented GHS, is there a difference in expected benefits prior to implementation and actual benefits post-implementation of GHS?

The GHS has not yet been implemented by the CPSC in the U.S. for consumer products.