

GHS Preparation Checklist and Guidance on How to Upgrade to Higher GHS Version

APEC Chemical Dialogue

July 2024



Asia-Pacific
Economic Cooperation



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1. Executive Summary

Application of a Global Harmonized System (GHS) of Classification and Labelling on Chemical has been developed by the United Nations (UN) to create a standardized labels and Safety Data Sheet (SDS) for protecting people and the environment, and facilitating trade around the globe. To Support the implementation of GHS, UN published UN GHS purple book as a guidance document for each chemical user community to define hazard classification criteria and standardize the content and format of chemical labels and SDS. The UN GHS (Purple Book) has been revised every two years since the first edition was published in 2003, and the tenth edition (GHS Rev.10) was released in 2023 to adapt to global development.

The UN GHS Purple Book is not a regulation and it is not legally binding in any economy. Therefore, economies adopting GHS have to take basic GHS elements from the Purple Book and issue their own regulations or standards to implement GHS. However, an updated and harmonized system would be more beneficial for each economy since it would create a consistent standard enabling trade among economies. Economies who tend to keep up with the latest global chemical management and harmonize with the global circumstances of GHS regulation, are considering to update their existing GHS regulation along with the GHS revision. However, each economy may have challenges on their way to adopt the new version of GHS. There could be limitations of capacity and capability, time constraint, insufficient reference on the best practices on upgrading GHS.

This guidance can be used by any economies implementing GHS for the first time and those upgrading to a newer version. The assistance here is in the form of 'Preparation Checklists and Guidance Book'. The project outcome will give a sustainable advantage to the whole APEC member economies. This 'Preparation Checklists and Guidance Book' will serve as a tool whenever an economy want to upgrade to different GHS version for the implementation. Therefore, this project could be an opportunity for APEC to promote an update and convergence in the GHS system which would enable an easier trade among APEC member economies and others.

2. Background

Many Asia-Pacific economies are implementing, or considering the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). GHS is a system developed by the United Nations (UN) for hazard communication through harmonized provisions for standardized labels and safety data sheets (SDS), to improve workers' and chemical users' health and safety, ensure environmental protection, facilitate trade and reduce the need for testing and evaluation of chemicals. This system is updated periodically once every two years. Today, GHS-book, known as UN GHS Purple Book, has already reached the 10th edition.

For some economies who tend to keep up with the latest global chemical management, are considering revising their existing GHS regulation along with the GHS revision. This guidance is essential for economies since GHS implementation also becomes an important factor for their sound business climate. However, each economy may have challenges on their way to adopt the new version of GHS. There could be limitations of capacity and capability, time constraint, insufficient reference on the best practices on upgrading GHS.

This project aims to assist economies in addressing the challenges to adopt newer versions of GHS. The assistance here is in the form of 'Preparation Checklists and Guidance Book'. The project outcome will give a sustainable advantage to the whole APEC member economies. Since, every time any economy plans to upgrade their GHS regulation, this 'Preparation Checklists and Guidance Book' will assist them on its implementation.

The project is aligned with the 2000 APEC Ministerial Meeting in Brunei Darussalam, ministers welcomed an initiative to establish the Chemical Dialogue, consisting of government and industry representatives to foster cooperation and take actions to help member economies achieve high standards of protection for human health and safety and the environment, foster greater innovation, and prevent barriers to trade.

Chemical Dialogue (CD) serves as a forum for regulatory and trade officials and industry representatives to find solutions to challenges facing the chemical industry in the Asia-Pacific region. The CD focuses on chemical-sector trade liberalization and facilitation by improving trade and regulatory policies and practices. It seeks workable programs which ensure that regulatory, safety and environmental goals can be implemented by both governments and businesses. The CD's primary goals are articulated in its strategic framework, which was initially endorsed by APEC Ministers in 2011. The CD's current strategic framework for 2020-2023 as follows:

- a. To facilitate trade and raise the standard of sound management of chemicals by expanding and supporting regulatory cooperation and regulatory alignment in the region.

- b. To promote understanding of the chemical industry's role as a provider of innovative solutions for sustainable economic, environmental and social development.
- c. To enable effective cooperation between industry and governments to improve chemical product stewardship and safe use.

At the 21st Chemical Dialogue meeting in Papua New Guinea in 2018, the CD agreed to focus on identifying strategies to promote GHS convergence by member economies. At the 2023 APEC Chemical Dialogue industry pre-meeting, the CD agreed to focus on regulatory convergence as a part to support the implementation of APEC 2023 Meetings in United States, advancing its theme of "Creating a Resilient and Sustainable Future for All."

This project will strengthen the ability of economies particularly for developing economies, those in implementing GHS for the first time, or for economies adopting the latest version of GHS by utilizing the project outcomes such as Guidelines on GHS Implementation Preparation Checklist and Recommendation/Best Practices/Key Factors to be considered while adopting or upgrading GHS versions and the appropriate approach(es) to be applied to address it.

No matter how advanced an economy is, every industry will always find a new chemical in the way to create a new product. This situation is also influenced by the demand of the global market that seeks better industrial products. When it comes to new chemicals, it is then followed by new characteristics that involve hazard and other basic properties (such as colour, density, melting point, boiling point, flammability, toxicity, pH value, etc). Apart from that, we realise that the UN GHS Purple Book is always revised every 2 years. This routine will push every economy to renew their GHS regulation. Starting from this inevitable rapid change, we need to set up guidance that would help every economy to develop their capacity, not only for developing economies but also including the developed ones. Besides helping economies to catch up with the latest GHS, this guidance eventually will make the global chemical trade much easier.

Once every economy sets up the latest and GHS regulation with the best way of similar implementation and similar infrastructure, we believe there will be no more different treatment for any chemical goods at any harbour. This would eventually create no barrier of trade and could boost the APEC member's trading activities which is the main benefit of this project. We also believe that this guidance could also be used by non-APEC economies to establish their GHS regulation. When the rest of the world has referred to the same guidance, we will get a much better global business climate especially in chemical goods.

Mutual Acceptance Principles and GHS Convergence

Economies have implemented GHS in various ways, with different timelines, review process, etc. In this context promoting a single version of GHS to be implemented across economies would be too restrictive. Instead, broader, or mutual acceptance of other GHS implementing regulations in the region should be a key principle when promoting convergence of GHS implementation practices.

Several economies recently responded to the 2019 to 2021 APEC CD GHS Implementation Convergence Questionnaire that they accept later revisions of GHS than the implemented revision. For example, the Mexican GHS (NOM-018-STPS-2015) says:

“Classification is according to the criteria in the voluntary NMX-R-019-SCFI-2011 or its subsequent replacement or any later version of UN GHS Rev 3.”

Accepting later revisions of the GHS than the implemented revision is a good opportunity for convergence and promotes consistent global GHS implementation. APEC economies should widely share clear and accurate details of what is accepted and any restrictions/limitations about accepting later revisions of the GHS.

- a. Alternatively, economies could consider accepting older GHS revisions as well, provided that the level of protection was the same or stricter with respect to the chemical.
- b. APEC economies could consider accepting hazard communication document guidance (safety data sheets and labels) based on more than one revision version of the UN GHS Purple Book for classification. For example, if an economy implements the 3rd revision of GHS, it could also accept the 4th through the 8th revisions of GHS, provided that the level of protection was the same or stricter with respect to the chemical.
- c. APEC economies could consider accepting classifications based on building blocks that have not been adopted by the economy, as long as all the adopted building blocks are included in the classification.

This guidance is linked with relevant APEC CD VWG on GHS (GHS Convergence) and ARCP VWG on GHS, to ensure the alignment of the work and add on the ideas/ actions. This guidance can be used as reference for further initiatives in managing GHS implementation update and alignment in the future.

3. Introduction

This project will produce 3 outputs consist of Research Survey and Background Paper, Workshop and the Preparation Checklist and Guidance Book. Here are the details about these three outputs.

1. Research Survey and Background Paper

We required this guidance as the first draft version of the Preparation Checklist and Guidance Book. This project will involve all APEC member economies to compose the Background Paper. It would effectively identify the most essential aspects of GHS implementation and identify the best practice to be discussed and selectively adopted through discussion with all APEC member economies. The Background Paper will be composed during “Meeting to Draft Background Paper” has been held on 23 November 2023 through Zoom Meeting Application. The survey results have been incorporated into the Background Paper and shared at the Workshop. The Research Survey has been done through online questionnaires to all APEC economies to ensure the issues experienced by the broader APEC region addressed in the Background Paper.

2. Workshop

This project workshop consists of 1 online workshop through Zoom Meeting Application and 1 in person workshop that has been held in Bali. It involves the whole APEC member economies to be active in the capacity building and also going to be phase where “the Background Paper is transformed into Guidance Book. These workshops are the phase where “Background Paper is transformed into Guidance Book”. It also discusses the whole aspects of GHS implementation from different angle of perspectives like from government, industrial player, trader, society, academics and other relevant perspective. These workshops and discussion were tough since there are diverse opinions amongst participants on the way they implement GHS. This is absolutely normal and an excellent situation, because we able to receive more perspective to make the Guidance Book more acceptable to the whole economies.

3. Preparation Checklist and Guidance Book

This book is the final output of the project that is built from the workshops. From this guidance book, every economy has the opportunity to build their own GHS implementation scheme with the easiest way which is also recommended by experts from APEC economies. The Preparation Checklist and Guidance Book will be submitted to the APEC Secretariat on March 2024.

This guidance will be prepared for the whole APEC economies and the final objective is to accelerate the chemical trade amongst the APEC

economies, also beneficiaries for workers/users of chemical products as the chemical products that they used shall be labelled and equipped with the Safety Data Sheets as per GHS regulation to ensure the safety handling of the chemicals. We recommend that this could set also as APEC Publication. The publication of this guidance will be prepared in electronic form. It is preferable if this guidance is shared on APEC website officially and other APEC publication media.

This guidance will be suitable to share with GHS stakeholders which may consist of government, chemical industry, chemical industry association, chemical users, society, academia and other stakeholders involve in whole chemical value chains. This guidance applicability also can be extended to all economies not limited to APEC economies for free.

4. Scope

4.1. Scope

Recommendation or Best Practices or Key Factors to be considered while adopting or upgrading GHS versions and appropriate approaches to be applied to address it, such as:

- 1) Type of standards/guidelines/regulations that must be developed/ compiled/ adopted
- 2) Identifying key stakeholders to be involved
- 3) Regulatory Impact Assessment (RIA)
- 4) Communication plan including Public Consultation and Key stakeholder engagement
- 5) Capacity building (training) plan
- 6) Transition Period
- 7) Mutual Acceptance Principles

4.2. Users

- 1) APEC economies
- 2) Government who is managing GHS and relevant government agencies
- 3) Chemical industry who is implementing GHS
- 4) Chemical Industry Association
- 5) Chemical Users
- 6) Other stakeholders involve in whole chemical value chains
- 7) Academia, researchers and practitioners
- 8) Society

4.3. Applicability

- 1) This guidance is applicable to all economies but not limited to APEC economies.
- 2) This guidance can be used as reference whenever APEC economies want to adopt or upgrade GHS versions and this guidance has no legal binding.

4.4. Reference Source

This guidance is based on:

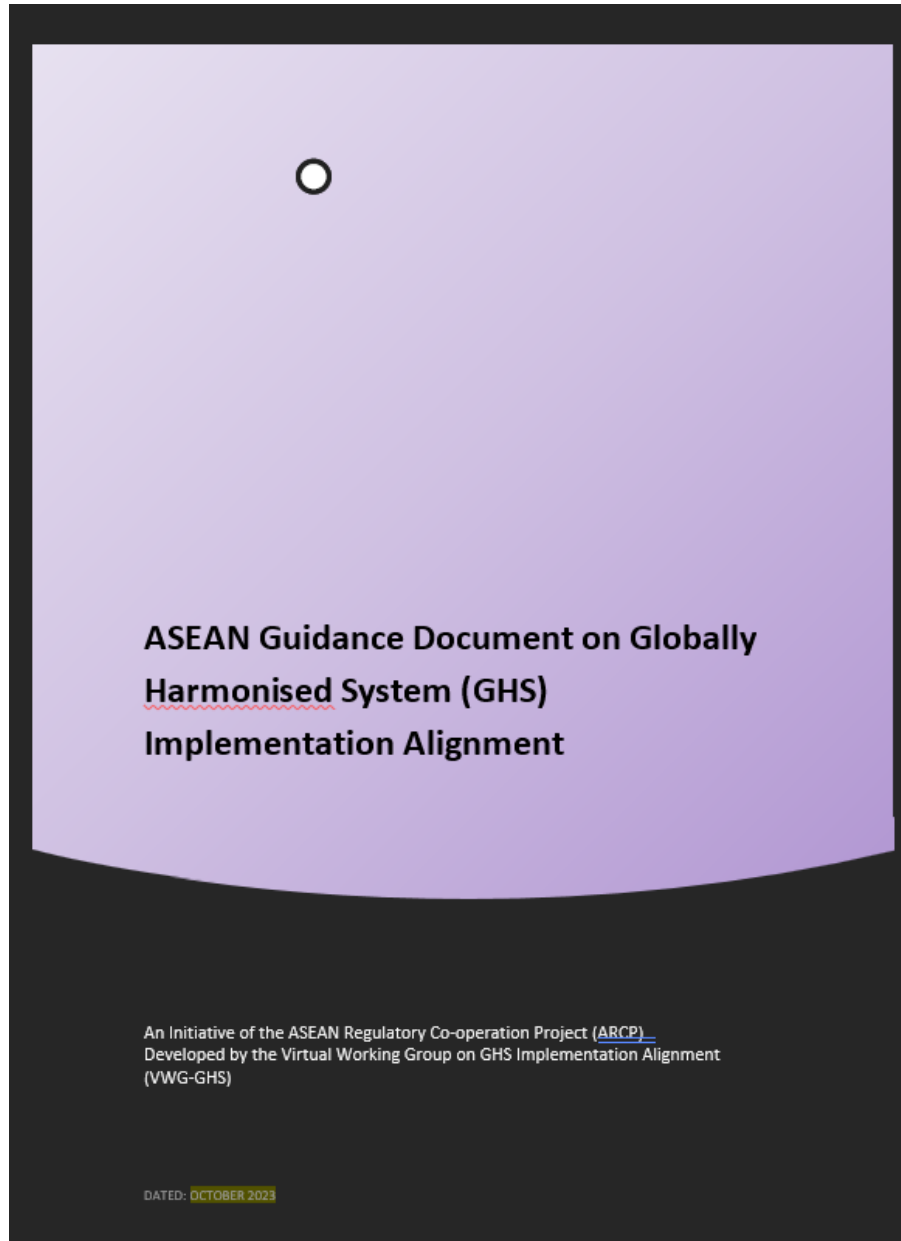
- 1) ASEAN Guidance Document on Globally Harmonised System (GHS) Implementation Alignment (ASEAN-7)
- 2) Alignment with APEC GHS VWG work plan.
- 3) APEC Best Regulatory Practices Principles
- 4) APEC CD GHS Implementation Convergence Questionnaire 2022 Progress Report

4.5. Intended Audiences

- 1) APEC and non-APEC economies
- 2) APEC CD VWG on GHS as a reference document and update further as required.

5. ASEAN Regulatory Cooperation Platform (ARCP), ASEAN-7 and its GHS Implementation Checklist

Please refer to ASEAN-7 and its GHS Implementation Checklist



Appendix D: GHS Version Update/New Implementation Checklist – Reference

No	Best Practices	Responsible Party	Approach/Measures	Application		Remark
				Yes	No	
1	Transitional Period for GHS Revision	Authority	i. Establish appropriate timeframes and milestone for end-to-end consideration and implementation.	<input type="checkbox"/>	<input type="checkbox"/>	
			ii. Mutual agreement among different competent authorities for the implementation plan and the legal enforcement during transition period	<input type="checkbox"/>	<input type="checkbox"/>	
			iii. Implementation guidance document made available for regulators and industries	<input type="checkbox"/>	<input type="checkbox"/>	
			iv. Sufficient implementation time with phased approach (<i>i.e., phase 1 for substance and phase 2 for mixtures</i>)	<input type="checkbox"/>	<input type="checkbox"/>	
			v. Acceptance on the existing version during implementation phase (<i>specific to the economy intended to implement</i>)	<input type="checkbox"/>	<input type="checkbox"/>	
			vi. Conduct survey/assessment to find out the potential risks and impacts to the industries and related stakeholder. Common transition period for the adoption of latest or different GHS version is at least one year. And more time should be planned for first time adoption of GHS.	<input type="checkbox"/>	<input type="checkbox"/>	
			vii. Transition/phase-in time for any incoming shipment / goods into the economy and those on the shelf for sales.	<input type="checkbox"/>	<input type="checkbox"/>	
			viii. Standby a list of related regulations and its authority for reference	<input type="checkbox"/>	<input type="checkbox"/>	
			ix. Consider adoption best practices from other economies	<input type="checkbox"/>	<input type="checkbox"/>	
2	Capacity Building	Authority, Industry, Associations, chemical users	i. Good understanding and interpretation on the requirements for existing GHS version and new GHS version	<input type="checkbox"/>	<input type="checkbox"/>	
			ii. Conduct dialogue session between authority and industry to understand the requirements and concerns (before and after the release of draft new requirement)	<input type="checkbox"/>	<input type="checkbox"/>	

			<ul style="list-style-type: none"> iii. Training to be held for authorities and industries prior to starting implementation and to be conducted by relevant competent authority personnel or assigned competent trainer iv. Identify the existing training center to enhance the capacity building v. Adequate trainings for end users on GHS especially for SME (Small Medium Enterprise) vi. Technical guidance vii. Conduct business impact assessment on what need to be changed (SDS, labelling and re-labelling, procedure), resources (competent personnel, equipment/system, cost) and time required for full transition or implementation (Project management) viii. Identify case scenario for difference industries as a reference and self-guidance during implementation 	<input type="checkbox"/>	<input type="checkbox"/>	
3	Public Consultation and Stakeholder Engagement	Authority, Association	<ul style="list-style-type: none"> i. Adequate stakeholder engagement to ensure that association and industry have clear understanding in term of the implementation plan and implementation approach ii. Enable sufficient public consultation session to allow active exchange/dialogue session for questions and concerns from industries iii. Consider to include the feedbacks/recommendations from association and industry in the implementation plan 	<input type="checkbox"/>	<input type="checkbox"/>	
4	SDS and Labelling Requirements	Authority	<ul style="list-style-type: none"> i. Acceptance of label with multiple languages (<i>specific to economy intended for the implementation</i>) ii. Acceptance of additional label elements which are mandatory in other ASEAN economies iii. Allow GHS label with equal or more stringent version or allow old and new version of SDS and labels 	<input type="checkbox"/>	<input type="checkbox"/>	

			<ul style="list-style-type: none"> iv. Allow differences in translation for precautionary statements v. Allow label to follow the requirements of transit bound economy 	<input type="checkbox"/>	<input type="checkbox"/>	
5	Classification of Hazardous Chemicals	Authority, Industry	<ul style="list-style-type: none"> i. Conduct impact assessment on the different GHS version under consideration for necessary preparation ii. Allow or execute self-classification of the hazardous chemicals with additional effort from authority to develop classification list as reference iii. Conduct survey to collect information from industry on understanding of GHS version and GHS classification tool, for developing and adoption of practical approach. iv. Develop public accessible classification tool to support industry, especially SME 	<input type="checkbox"/>	<input type="checkbox"/>	
6	Enforcement of GHS Regulations by Different Competent Authorities	Authority	<ul style="list-style-type: none"> i. Individual regulations enforced by each competent authority or a centralized regulation ii. Establish industrial standards and reference by regulations iii. Examine the data accuracy by GHS validation on SDS and labels. 	<input type="checkbox"/>	<input type="checkbox"/>	
7	GHS Classification Database for Single Substances	Authority	<ul style="list-style-type: none"> i. Establish classification database for ASEAN member states based on mutually agreed GHS version to achieve harmonized classification and implementation 	<input type="checkbox"/>	<input type="checkbox"/>	
8	Acceptance of GHS Version Among ASEAN Member States	Authority	<ul style="list-style-type: none"> i. Establish ministerial agreement to accept implemented GHS version among ASEAN member states for trade facilitation within the region. 	<input type="checkbox"/>	<input type="checkbox"/>	

6. Step of GHS Implementation

Phases	Approach	Responsible Parties		Activities/ Tasks	Remarks	
Leverage In		Government and Chemical Industries		Best Practice		
Measure	Problem Identification, Objectives and Scopes	Government		The reason for implementing GHS or updating to the newer GHS version		
		Government		Identify the challenge		
	General Information. Data Collection	Government		Review the current implementation such as GHS version, current regulations, standards and guidebook etc.		
		Government		The trend of GHS version adoption Globally, Region and trading partners		
		Government		GHS version comparison		
		Government		Identification of Potential barrier to trades		
		Government		Identify stakeholders such as industry chemicals and consumers. Stakeholders should include other industries (marine, paint, construction, electronics etc.), associations (safety officer/ Industry hygienists), consultants and Institutions.		
		Government		Public Consultation		
	Analyze	Options Identification	Government	Public Consultation in different stages and not only towards the end. Chemical Industry to be included in the early	Identify pros and cons for each of the options	
			Government		Evaluate the options to identify the best approach to implement an update	
Government			Leverage other economy practices (if applicable)			
Government						
Impact Analysis		Government	Alignment and minimize divergence with other trading partner economies			
		Government	Identify the changes in different version of GHS and implication such as building blocks, H and P statement, SDS format, Label format and testing method			
		Government	Classification (BB/ cut off), SDS and Label changes/ update			
		Government	Regulatory impact assessment i.e. includes new hazard class / category			
		Government	Which GHS version will be adopted			
		Government				
Improve		Government		Drafting new/ revised standard, regulation, technical guidelines		

	Establish Legislation Framework	Government		Keep existing industry standard and practice as record and not lost this when revised	
		Government		Enacted new/ revised standard, regulation, technical guidelines	
	Implementation Strategy	Government		Operational and resources implications	
		Government		Timeline and sufficient grace period for implementation	
	Communication Plan	Government		Coordination and harmonization process Government-to-Government engagement with other government agencies and key stakeholders	
		Chemical Industries		Communicating with all members and other associations	
		Chemical Industries (Company)		Give information to suppliers, customers, warehouse	
		Chemical Industries		Form a working group to allow more information exchange	
	Capacity building/ training	Government		Training (new and refresh) as part of hazardous communication.	
		Government		Different level of trainings (awareness, users, classification) to both regulators and industries	
Control		Chemical Industries	Interpret local regulations and clarify the scope, legal timeline, GHS Classification building block & cut-off limit and SDS/label template legal requirements. Local language requirements (if any).		
		Chemical Industries	Develop and review the GHS Implementation Plan internally (including timeline and resource). Internal Communication. Role and responsibilities.		
		Chemical Industries	Identify, generate, review and prioritize the impact scope (products/ intermediate/ raw material and entities)		
	Monitor Evaluate Review	Government	Develop a central website to provide GHS regulation and requirement (in English), timeline, FAQ and help desk. This will help industry (esp. overseas suppliers to understand the requirement and make plan to comply with the requirement.		
		Chemical Industries	Update Procedures		
	Management of Change (MOC)	Chemical Industries		Initiate Management of Change.	
				GHS Classification Changes	
			GHS SDS and labelling changes. Further communication is required to inform the change (if any) of handling and use of the chemicals		

				The testing methods and equipment changes (if any) and industry readiness to carry out this testing.	
				Look into all changes as a result of the adaptation of the changes for the certain GHS revision	
				DG classification review.	
				Develop SDS/ Label template, review and release updated SDS and Label.	
Leverage Out		Government and Chemical Industries		Dissemination information	
		Government and Chemical Industries		Experience exchange	

7. The Challenges and The Most Essential Aspects on GHS Implementation

7. 1. The Challenges in Implementing GHS

Based on the survey, the challenges if implementing GHS are:

- 1) Industry: knowledge gaps in various industry such as SME and multinational company, lack of resources, technical equipment, information resources, upgrading to higher version entails cost for changing labels and updating SDS.
- 2) Government regulator: difficulty of coordinating the position with various ministries involved in the process, ensuring communication with all stakeholders to be able to understand GHS information and implement it consistently, inspection and supervision of legal compliance.

7. 2. The Most Essential Aspects on GHS Implementation

- 1) How the regulation is encouraging?
- 2) How to protect human health and environment?
- 3) Reduce trade barrier for inter economies
- 4) The objective and reason for updating to the newer GHS ver.
- 5) Capacity building is very essential aspect, due to knowledge gap
- 6) The Best Practice learning from other economies
- 7) Hazard communication (GHS Label/ SDS) to public/ users
- 8) SDS consistency and quality

- 9) Clear communication of the requirement, timeline to all stakeholders
- 10) Provide translation (i.e. English) of the GHS requirement and timeline

8. Recommendation

- 1) This guidance has no legal binding, but it is becoming a reference for economies
- 2) This guidance can be used as reference whenever APEC economies want to adopt or upgrade GHS versions
- 3) This guidance is developed on the project based and the Project Overseer (PO) recommends this guidance is treated as live document. Its update frequencies and its update mechanism can be determined by APEC CD VWG later. Need to define which part need to be updated or not.
- 4) Leverage ASEAN-7 Checklist as GHS Implementation best practices already included.
- 5) Keep it as general and simple guidelines, so it can be used for long time.
- 6) Capacity building is very essential aspect (due to knowledge gap)
- 7) Build more success story in the Annexes, so economies can learn from other experiences

9. Annexes

9.1 Comparison of GHS Version

- 1) APEC CD VWG on GHS to review and update the comparison document
- 2) Different between different UN GHS revision (what is the change in the BB block, testing method, H and P statement etc)
- 3) Document developed to compare the GHS revision and implementation status between economies by APEC CD VWG on GHS
- 4) A link to UN GHS website about the general change from one revision to another

Note: it should be simple and limited to essential info only. Please add for any comparison references in the past.

9.2 The Success Stories

- 1) Indonesia

Indonesia has released two series of Indonesian National Standards (Standar Nasional Indonesia/SNI) on GHS, namely **SNI 9030-1**:

2021 Global Harmonization System - Part 1: Classification of Chemical Hazards and SNI 9030-2: 2021 Global Harmonization System - Part 2: Safety Data Sheet and Chemical Labelling.

These SNI refer to the hazard classification system according to the 7th edition of the UN GHS Purple Book, then composed based on condition and requirements in Indonesia to assist the process of classifying and labelling chemicals circulating in Indonesia, as well as providing guidelines for implementing the GHS system in Indonesia.

The objectives of these SNI are as follows:

- As a general guide in chemical hazard classification and labelling also preparation of safety data sheets
- Protect security, health, safety and the environment
- Protect producers and consumers
- Facilitate international trade

These SNI have been socialized to the related stakeholders and can be accessed in National Standardization Agency website.

Ministry of Industry as part of Indonesia government conducts the supervision of GHS implementation. There are supposed to be more than one thousand chemical industries to be outreached as the first layer of implementation. Further development shall be made in the near future to involve more industrial business especially the small medium enterprises which using hazardous chemical on their commercial operation.

At this moment, more than one hundred chemicals companies had been outreached and inspected. This program would be continued and aligned with the updated world GHS development.

2) Malaysia

In Malaysia, the implementation of the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals is governed by the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013, commonly referred to as the CLASS Regulations 2013. Additionally, the Industry Code of Practice on Chemical Classification and Hazard Communication 2014 (ICOP CHC 2014) provides further guidance on chemical classification and hazard communication. It is a legally binded document to fulfil the requirements of the CLASS Regulations. It comprises of four (4) parts which contains list of classified chemicals, guidance on self-classification of chemicals, guidance for suppliers in preparing labels and Safety Data Sheet

(SDS) according to the Regulations and guidance on the legal requirement of the Confidential Business Information (CBI) stipulated under the Regulations.

In 2019, the Industry Code of Practice on Chemical Classification and Hazard Communication Part 1 (Amendment) 2019 (ICOP CHC 2019) was released. Previously, Part 1 of ICOP CHC 2014 contains 229 classified chemicals. The amendment contains a total of 662 chemicals in Part 1 of the list of classified chemicals. It revised classification for 40 chemicals and included an additional 393 new chemicals. The classification specified in the list, is a minimum classification for the chemicals. If the principal supplier has data or other information that leads to classification of additional hazard class or more severe category compared to the minimum classification, the principal supplier may classify accordingly.

Express Labelling Self-Assessment (ELSA) and Express SDS Self-Assessment (ESSA) are tools introduced in year 2014 for self-checking of labels and SDS in compliance with the CLASS Regulations 2013 by chemical suppliers. These tools are designed to assist industries, especially small and medium-sized enterprises (SMEs), in assessing and ensuring compliance with the Regulations pertaining to labelling requirements and the preparation of SDS. Suppliers may check overall compliance of the Regulations using the Self-Assessment Enforcement Checklist of the CLASS Regulations 2013 introduced during the pandemic Covid-19 in year 2021. The Department of Occupational Safety and Health Malaysia (DOSH Malaysia) has conducted various stakeholders' engagements with oil and gas companies, suppliers' associations, vendors and with multiple industry associations in an effort to inculcate the industries' awareness of the concept of self-regulation in addition to increase the level of compliance with the CLASS Regulations 2013.

Enforcement of the CLASS Regulations 2013 are conducted by the officers from DOSH Malaysia from time-to-time basis. Non-compliance with the CLASS Regulations 2013 is considered an offence and punitive actions will be taken accordingly. The CLASS Regulations 2013 also requires principal supplier (manufacturer and importer) to submit chemical inventory of hazardous chemical manufactured and/or imported for one (1) calendar year at and exceeding 1 metric tonne per year. DOSH has also developed and provided an online platform by the name of Chemical Information Management System (CIMS) to facilitate the submission of hazardous chemical inventory by the principal suppliers. On top of

that, information, brochures and booklets on frequently asked questions (FAQ) regarding CLASS Regulations 2013 and regarding CIMS can be found in DOSH Malaysia website at www.dosh.gov.my.

3) The Russian Federation

The harmonized elements of hazard communication provided by the UN GHS recommendation are implemented in The Russian Federation legislation by the following domestic standards:

- a. GOST 30333-2022 Safety Data Sheet for chemical products general requirements,
- b. GOST 31340-2022 Labelling of Chemicals, General requirements.

The results of the chemical hazard classification should be presented in the second section of the Safety Data Sheets (SDS). The classification is carried out accordance with the following interstate standards that implement the provisions of the 7th edition of the GHS:

- a. GOST 32419-2022 Classification of chemicals. General requirements
- b. GOST 32424-2013 Classification of chemicals for environmental hazards. General principles.
- c. GOST 32423-2013 Classification of mixtures (health hazards)
- d. GOST 32425-2013 Classification of mixtures (environmental hazards)
- e. GOST 32421-2013 Classification of chemicals, the danger of which is due to physical and chemical properties. Methods for testing explosives.

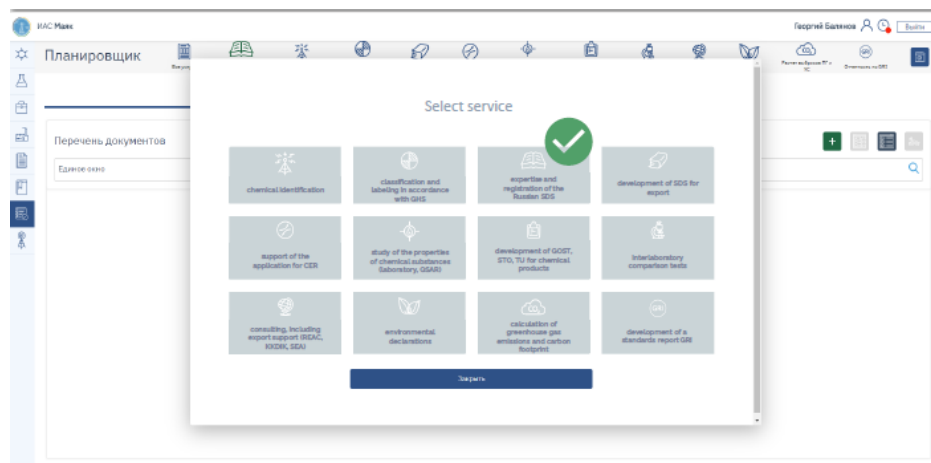
SDS quality need to be analyse, mind that there are common mistakes in SDS, such as:

1. Section 1 – the lack of detailed data on the use of chemical products
2. Section 2 – the incorrect specified classification according to the GHS, namely, the incorrect application of classification criteria for mixtures
3. Section 3 – incorrect indication of the concentration ranges of the components in the mixtures
4. Section 9, 11 and 12 – the lack information on physic-chemical, toxicological and ecotoxicological properties

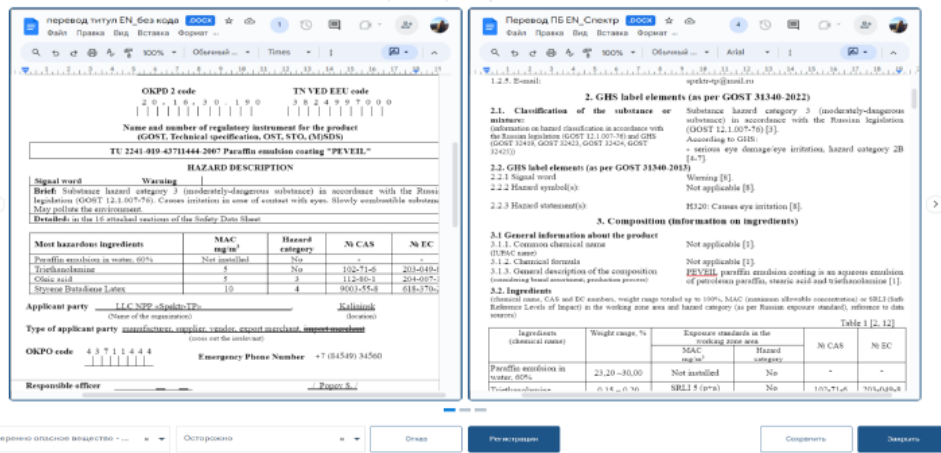
In the Russian Federation, for almost 30 years work has been carried out to verify the SDS. Any company can send its SDS for verification and subsequent entry into the Register of Safety Data Sheets of chemical products of the Russian Federation and CIS economies more than 3500 companies send SDS for their products for expertise and registration to the CIS Center. In 2023, the CIS Center received about 7000 SDS for various types of products for expertise.

In the Russian Federation, responsible marketplaces themselves join the initiative to use verified SDS. The SDS is prepared by the manufacturer, supplier, importer or seller. The document must be prepared in The Russian Federation according to the requirements of GOST 30333-2007, for example, with the association “CIS Center”. The validity period of such a document will be from 3-5 years.

The information and analytical system “MAYAK” were created, which is aimed at digitalization and automation of work related to the circulation of chemical products. If the company has a personal account in the system, they themselves choose from all the lists of expertise and registration services of SDS and if not, they send documents by email and coordinators upload documents to the system for them.



Companies upload into the system all the necessary documents for the expertise of the SDS: the title page, the SDS itself, the regulatory document for the product, the composition of the chemical product.



ИАС Name: Ольга Гераскина

Select a service

Документы от КМЛ

Рядовое ИР	Name	Дата редакции	Действие
1	Covering letter	11.05.2023	🗑️ 📄
1	Power of attorney to submit documents	11.05.2023	🗑️ 📄
1	Application	11.05.2023	🗑️ 📄
1	Information letter about the composition of the product	11.05.2023	🗑️ 📄
1	The title page of the SDS	11.05.2023	🗑️ 📄
1	Text of SDS	11.05.2023	🗑️ 📄
1	Regulatory document for products	11.05.2023	🗑️ 📄
1	Payment order	11.05.2023	🗑️ 📄
1	Laboratory test report	11.05.2023	🗑️ 📄
1	Signed title page of SDS	11.05.2023	🗑️ 📄
1	Other	11.05.2023	🗑️ 📄

Safety data sheets that have passed the expertise and registration procedure receive a QR code. When this code is read, you are redirected to the website of the system, which confirms the basic information about the SDS holder, validity period, product and its main dangers.

4) Singapore

Singapore adopted the United Nation’s Recommendations on the Transport of Dangerous Goods (RTDG) and The UN Globally Harmonized System (GHS) across all its domestic regulatory bodies via the GHS taskforce. Ministry of Manpower and Singapore Chemical Industry Council (SCIC) plays the role as Co-Chair of GHS task force

Closely monitoring the development in the International Convention and Protocols and has already ratified and adopted a number of

these conventions (e.g. Basel, Stockholm, Chemical Weapons Convention) within local legislation.

At the point of importation, Custom currently helps Industry with the screening of applicable regulation based on its HS Code and product code assigned by each Authority. Once the HS-code has been identified, the importer is then guided to the necessary requirements such as permits and licensing in order to import a product.

Implementation strategy on GHS through promotion, capacity building, engaging stakeholders, regulatory framework and developing partnership to achieve safe use of chemicals.

Singapore took a GHS capacity and capability building approach by SCIC GHS Guidebook, GHS poster, GHS card, Singapore Standards on GHS requirements, dedicated GHS webpage FAQs, GHS awareness seminars, GHS Chemical Users course, classification course, training for regulators, GHS Conferences, sharing of industry practices and cooperate with Institute of Higher Learning (IHLs) – Incorporation to school Academic course.

Singapore's GHS implementation journey starts on 2005 by the formation of GHS Task Force (TF), and first launch of Singapore Standard (SS) 586 on 2008. From 2018 to 2023, Singapore updates the SS 586 to align with UNRTDG Orange Book 20th edition and adopt GHS UN Purple Book 7th edition.

Singapore Standards SS 586 – Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods has 3 parts:

- Part 1: Transport & Storage of Dangerous Goods
- Part 2: GHS of Classification & Labelling of Chemicals
- Part 3: Preparation of Safety data Sheets (SDS)

Timeline of SS 586 implementation starts by initiation, drafting, consultation, approval by Chemical Standards Committee and publication.

9.3 Research Survey Result

<http://tinyurl.com/APECSurveyResult>

References:

1. CD 03 2022A – Develop Preparation Checklist and Guidance on How to Upgrade to Higher GHS Version
2. APEC CD GHS Implementation Convergence Questionnaire 2022 Progress Report
3. ASEAN Guidance Document on Globally Harmonised System (GHS) Implementation Alignment (ASEAN-7)