

# Asia Pacific: Hazard Communication Updates

Darlene Susa-Anderson October 5, 2023 | SCHC

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## **Agenda**

**Revision** to existing GHS implementation in process (all deadlines have not yet passed)

- Japan
- New Zealand
- Singapore
- Taiwan

**Proposed revision** to existing GHS implementation (final regulations have not yet issued)

- Malaysia
- · People's Republic of China

**Anticipated revision** to existing GHS implementation (no drafts circulated)

- Indonesia (2023)
- Japan (2025)
- Philippines (2026)
- Thailand (2025)
- Vietnam (2025)

GHS implemented with no changes anticipated

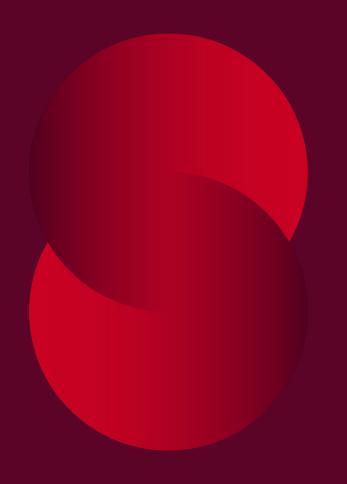
- Australia
- South Korea



## **GHS** Implemented

Revision to existing GHS implementation in process (all deadlines have not yet passed)

- Japan
- New Zealand
- Singapore
- Taiwan (Republic of China)





## **Japan**

#### Industrial Safety and Health Law (ISHL)

- Ministry of Health, Labor and Welfare (MHLW)
- Focus is on health and physical hazards of substances used in the workplace

## Poisonous and Deleterious Substances Control Law (PDSCL)

- Ministry of Health, Labor and Welfare (MHLW)
- Focus is on acutely toxic and corrosive substances used in the workplace and by consumers

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR)

- Ministry of Economy, Trade and Industry (METI) and Ministry of the Environment (MOE)
- Focus is on environmental hazards





## Japan (ISHL)

Implementing Regulation	Industrial Safety and Health Law (ISHL)
Administering Agency	Ministry of Health, Labor and Welfare (MHLW)
Official Language	Japanese
Based on Revision Number	Not applicable
Regulated Substances	Listed substances in ISHL article 57 and 57-2
Implementation Deadline	Initial deadline was Dec. 1, 2006



Source: CIA World Factbook



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#### ISHL amendments

## On May 31, 2022, an amended Ordinance for Enforcement of Industrial Safety and Health Law (ISHL) was released.

- SDS may be delivered electronically (emailing as an attachment or via a URL). Effective: May 31, 2022
- Mandatory review and update of "Information on Effects on Human Health" is now required. This information must be reviewed every five years, and when an update is needed, the SDS must be updated within a year. The chemical supplier must notify its customers and communicate the updated information. Enforced: Apr. 1, 2023.

#### **Upcoming deadlines**

- "Recommended use and restrictions on use" is mandatory in Section 1.
   Enforced: Apr. 1, 2024.
- Concentration information of a regulated substance in Section 3 of the SDS must be an exact percentage by weight – expressed in two significant figures – which is the same as Japan's PRTR Law (which is recommended not required under PRTR). Enforced: Apr. 1, 2024.



## Planned expansion (ISHL)

The Minister of Health, Labour, and Welfare (MHLW) is expanding the number of hazardous chemical substances (as listed in **Table 9 of the Cabinet Order of the ISHL**) subject to mandatory SDSs and labels.

Chemical suppliers must additionally prepare an SDS and label for mixtures containing substances in **Table 9** above the cutoff value found in **Table 2 of the Ordinance of the ISHL**.

On Apr. 27, 2021, a meeting was held that established a plan to add several hundred chemical substances to **Table 9** each year for the next three years.

- On Feb. 24, 2022, the first batch of 234 substances was added to Table 9 making the total number of substances listed 903.
- On Jun. 21, 2023, the MHLW updated the lists of proposed substances for 2023 and 2024, containing 649 and 779 substances respectively, and published for public comments. Comment period closed on Jul. 20, 2023. The lists were expected to be finalized in Sep. 2023.
- A two-year transition period is provided to prepare or update labels and SDSs for newly added substances to
   Table 9. For the substances added in 2022, suppliers have until Apr. 1, 2024, to prepare/update the documents
   (SDSs and labels).



## Planned expansion – Table 9 update

- SDS/label substances are currently listed in **Table 9 of the Cabinet Order of the ISHL** as mentioned in the previous slide. Changes are underway to simplify how substances are listed.
- On Aug. 30, 2023, an amendment to the Cabinet Order of the ISHL was published, and the **Table 9** list now consists of 33 of "xxx and its compounds" exclusively. This listing will be effective on **Apr. 1, 2025**.
- Formerly listed substances except those "xxx and its compounds" are removed from **Table 9** and will be re-published in a table in an amendment to the Ordinance of the ISHL in Sep. 2023. The table will include those proposed on Jun. 21, 2023, mentioned in the previous slide.
- The cut-off values are to be published in a MHWL notification in Oct. 2023 but won't be listed in Table 2
  of the Ordinance of the ISHL.
- Due to the series of changes to **Table 9** list and different transition periods, it will be challenging to identify and comply with the SDS/label requirements. MHWL still encourages identifying these substances with applicable enforcement dates on the SDS.



## Japan (PDSCL)

Implementing Regulation	Poisonous and Deleterious Substances Control Law (PDSCL) Note: PDSCL is not GHS compatible, but MHLW recommends use of JIS Z 7253: 2012.	
Administering Agency	Ministry of Health, Labor and Welfare (MHLW)	
Official Language	Japanese	
Based on Revision Number	Not applicable	
Regulated Substances	Listed Poisonous Substances and Deleterious Substances	
Implementation Deadline	Voluntary	



## Japan (PRTR)

Implementing Regulation	Law Concerning Reporting etc. of the Releases into the Environment of Specific Chemical Substances and Promoting Improvements in their Management (Pollutant Release and Transfer Registry (PRTR)	
Administering Agency	Ministry of Economy, Trade and Industry (METI) and Ministry of the Environment (MoE)	
Official Language	Japanese	
Based on Revision Number	Not applicable	
Regulated Substances	Class I and II Designated Chemical Substances	
Implementation Deadline	Apr. 1, 2015	



## **JIS Standards**

JIS Z 7253: 2019 Hazard Communication of Chemicals based on GHS – Labelling and Safety Data Sheet (SDS);	
JIS Z 7252: 2019 Classification of Chemicals based on GHS	
Referred to by ISHL and PRTR	
Japanese	
6 (being reviewed to adopt UN GHS to rev. 9 in Feb. 2025)	
May 24, 2022	



## **Excluded building blocks**

Intentionally Excluded Building Blocks	Acute toxicity category 5; Skin corrosion/irritation category 3; Aspiration hazard category 2
Building Blocks Excluded due to Revision	Chemicals under pressure



## Published non-mandatory GHS classifications

~3327 chemicals included with the latest set of classifications published on Jun. 29, 2023. Justification included in some cases:

HS Classif	ication Result						
emical Name 8:519-44-8	2,4-Dinitroresorcinol						
sult:	Ti: 07-003  Classifier: Ministry of Houlth, Labour and Wolfare (MHL07), Ministry of the Environment (MCE)  Van Classified: PX2C  Reterence Ministry  6HD Classification Ministry (10 Febr, 2000)  Testimate Qualities Council for the 2000)						
YSICAL HAZ	ARDS Hazard class	Classification	Symbol	Signal word	Hazard statement	Precautionary statement	Rationale for the classification
	1 Espitation	Di-Halon 1.7	<b>*</b>	Denise*	HOM Libelocke, made explosion heched	P370 P000: In case of the European and area was from 1970. Here away from 1970. Here away from 1970. The participants of periods. The problem.  P240: Ground floor in creative and receiving supplement.  P250: Do not subject to existence of periods of periods. A visition.	Shou the advances which is day or waited with less than IES prote for more, is Ad had as CARCAS and Discount Tr. Should be CARCAS and Discount Tr. Carca discounters with not beg than 15th owner by most 6 defends as UNITIZE2 and a description excision. It was classified into the "Not described" category.)
	2 Flammable sages (including chamically unotable gazes)	Not applicable	-	-	-	-	Solid (GHS definition)
	3 Aerosols	Not applicable	-	-	-	-	Not serosd products.
	4 Oxidizine rases	Not applicable	-	-	-	-	Solid (GHS definition)
	5 Gases under pressure	Not applicable	-	-	-	-	Sold (GHS definition)
	6 Flammable liquids	Not applicable	-	-	-	-	Sold (GHS definition)
	7 Flormrable solids	Classification not possible	-	-	-	-	No data available.
	8 Self-reactive substances and mixtures	Not applicable	-	-	-	<u> </u>	Since the substance is classified as an explosive, classification as a self-reactive substance is not applicable.
	9 Pyropheric liquids	Not applicable	-	-	-	-	Solid (GHS definition)
	10 Pyrophoric solids	Classification not possible	-	-	-	-	No data avallable.
	11 Self-heating substances and mixtures	Classification not possible	-	-	-	-	No data available.
	12 Substances and mixtures which, in contect with water, emit flammable sases	Not applicable	-	-	-		The chamical structure of the substance does not contain metals or metalloids (B, Bi, P, Ge, Ax, Se, Sn, Sh, Te, Bt, Pp, Atl.
	18 Oxidizine liquide	Not applicable	-	-	-	l	Sold (GHS definition)
	14 Oxidizing solids	Classification not possible	-	-	-	-	No data available.
	15 Orizanio peroxides	Not applicable	-	-	-	-	Containing no bivalent -O-O- structure in the molecule
	16 Corresive to metals	Classification not possible	-	-	-	-	No data available.



## Planned expansion of GHS classifications

The government initiated a trial on voluntary data submission from the public to boost its GHS classification efforts. Announced in Jun. 2022 through the "Public-Private Collaborative GHS Classification Information Collection Project," testing data was requested on 46 nominated substances and substances that had existing classifications.

In 2023, the government intends to classify 48 additional substances and re-classify 111 substances and has requested data submission from the private sector.

Submitted test reports will be shared with the public if used by the government for classification.



## Additional guidance: JCIA

GHS Compliance Guideline – Safety Data Sheet and Labeling Preparation Guidance published by the Japan Chemical Industrial Association (JCIA) in Jun. 2019

Labeling only guidance published in Aug. 2015.

JCIA has revised the Guideline to align it with the amended ISHL regulations and published it on Sep. 25, 2023.





### **New Zealand**

Implementing Regulation	Hazardous Substances (Hazard Classification) Notice 2020 Hazardous Substances (Safety Data Sheets) Notice 2017 Hazardous Substances (Labelling) Notice 2017 Hazardous Substances (Disposal) Notice 2017 Hazardous Substances (Packaging) Notice 2017
Administering Agency	Environmental Protection Authority (EPA); WorkSafe New Zealand
Official Language	English
Based on Revision Number	Adopted GHS criteria in 2001 prior to official version released in 2003 but 2? but transitioning to rev. 7
Implementation Deadline	4-year transition period began Apr. 2021 and ends <b>Apr. 2025</b>





## **Building blocks**

Intentionally Excluded Building Blocks	Acute toxicity category 5; Skin corrosion/skin irritation category 3; Aspiration hazard category 2; Hazardous to the aquatic environment acute categories 2 and 3; Hazardous to the ozone layer
Building Blocks Excluded due to Revision	Chemicals under pressure
Notes	Respiratory sensitization is only category 1 (not 1A and 1B); Skin sensitization is only category 1 (not 1A and 1B)
Added Building Blocks (applies to agrichemicals only)	Hazardous to soil organisms; Hazardous to terrestrial vertebrates; Hazardous to terrestrial invertebrates

Serious eye damage/irritation category 2 includes anything that would be classified as a 2A or 2B.



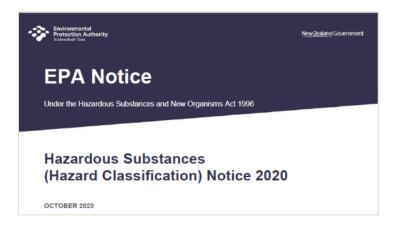
## Hazardous Substances (Hazard Classification) Notice 2020

Approved on Oct. 15, 2020, this updated Notice implements rev. 7 of the UN GHS replacing the Hazardous Substances (**Hazard Classification**) Regulation 2017.

Of note is the unique NZ numbering classification system which has reverted to the standard GHS hazard classes and categories style with the searchable CCID updated to reflect this.

Effective date: Apr. 30, 2021

The NZ EPA has revoked and reissued 208 group standards to reflect the standard GHS classification approach.



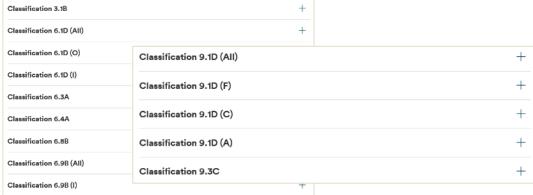


## Published non-mandatory GHS classifications

HSNO Chemical Classification Database (CCID)

GHS classifications (with justification) included for ~5000 chemicals







#### **Notes**

SDS and label content must be reviewed at minimum every 5 years.

Section 1 of the SDS requires the use of a New Zealand name, address and telephone number. The emergency telephone number must ring in New Zealand.

Sections 5 and 14 of the SDS requires inclusion of the Hazchem code when applicable.

Quantity of container dictates label elements minimum distances for readability:

Quantity Of Substance	Distance for Priority Information	Distance For Other Information
≤ 20g or 20ml	30cm	20cm
> 20g or 20m1, ≤ 5kg or 5L	30cm	30cm
> 5kg or 5L, ≤ 450kg or 450L	1m	50cm
> 450kg or 450L	10m	10m

Priority Information - Signal word; Pictograms
Other Information - Hazard statements; Precautionary statements

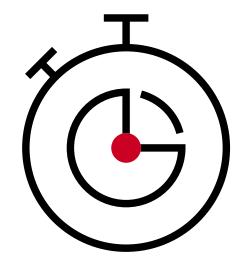
The type of lettering (to assist clarity of information) *should* be Sans Serif (a specific type face), and of:

- · At least 1mm height so that it may be read over a distance of 20cm; and
- · At least 1.5mm height to be readable over 30cm distance.
- At least 2.5mm height to be readable over 50cm distance.
- At least 5mm height to be readable over 1m distance.



## Implementation deadlines

- All new and amended Notices and group standards entered into force on Apr. 30, 2021.
- For any hazardous substances approved prior to Apr. 30, 2021:
  - Update labeling, SDS, and packaging provisions by Apr. 30, 2025
- For any hazardous substances approved after Apr. 30, 2021:
  - All updated rules must be followed. Rev. 7 of the UN GHS classification for labels and safety data sheets must be used after approval.





## **Singapore**

Implementation Deadline	Feb. 6, 2025
Based on Revision Number	7
Official Language	English, Malay, Mandarin and Tamil
Administering Agency	Ministry of Manpower
Implementing Regulation	Workplace Safety and Health (General Provisions) Regulation; SS 586 series of standards



Source: CIA World Factbook



## **Excluded building blocks**

Intentionally Excluded Building Blocks	Flammable liquid category 4 (except for Diesel fuel); Acute toxicity category 5; Skin corrosion/irritation category 3; Serious eye damage/eye irritation category 2B; Aspiration hazard category 2; Hazardous to the aquatic environment – acute categories 2 and 3; Hazardous to the aquatic environment – chronic categories 3 and 4	
Building Blocks Excluded due to Revision	Chemicals under pressure	
Notes	Skin corrosion/irritation category 1 instead of 1A, 1B and 1C; Skin and Respiratory Sensitization category 1 instead of 1A and 1B	



## Singapore

SS 586: Singapore Standards on Hazard Communication for Hazardous Chemicals and Dangerous Goods (recently revised in accordance with rev. 7 of the Purple Book)

- Part 1-2021: Transport and Storage of Dangerous Goods
- Part 2-2022: Globally Harmonized System of Classification and Labelling of Chemicals -Singapore's Adaptations
- Part 3-2022: Preparation of Safety Data Sheets (SDS)

The SS 586 series is considered an Approved Code of Practice under the Workplace Safety and Health (ACOP) Notification 2022.





## **Singapore**

Updates to Part 2 and Part 3 issued on Feb. 6, 2023.

- Part 2 on classification and labelling: updated from rev. 4 to rev. 7 of the UN GHS.
- Addition of new physical hazard class for desensitized explosives and clarification on small container labelling.
- Addition of one new informative annex:
  - Examples of labelling for chemicals supplied in small containers/packages (Annex B)
- Part 3 on SDS: update from rev. 4 to rev. 7 of the UN GHS.
- Addition of two new informative annexes and one new table:
  - Basic physical and chemical properties (Annex D)
  - Further safety characteristics (Annex E)
  - Physical and chemical properties (Table D.1 in Annex D)

Transition period: 24 months



#### **Notes**

SDS and label content must be reviewed at minimum every 5 years

Within 6 months of receipt of new information, SDS and label must be updated

#### SDS

Section 1: Local address and contact telephone number is needed.
 The emergency telephone number must ring in Singapore.

#### **LABEL**

- Black border instead of a red border is permitted if manufactured material is NOT intended to be exported
- Local address and contact telephone number is needed
- Minimum dimensions of a label is dependent on container size
- If container size is <125 ml, include product identifier, pictogram and the statement 'refer to SDS for additional information'

Table 12 - Recommended dimensions of a GHS full label

Capacity of container	Dimensions (millimetres)
125 ml to 3 l	If possible, at least 52 x 74
Greater than 3 I but not exceeding 50 I	At least 74 x 105
Greater than 50 I but not exceeding 500 I	At least 105 x 148
Greater than 500 I	At least 148 x 210



## Taiwan (Republic of China)

Implementing Regulation	Occupational Safety and Health Act (formerly the Labor Safety and Health Act); Regulation for the Labelling and Hazard Communication of Hazardous Materials; National Standard CNS 15030 series on Classification and Labelling of Chemicals
Administering Agency	Ministry of Labor (MOL formerly Council of Labor Affairs (CLA))
Official Language	Traditional Chinese
Based on Revision Number	4
Implementation Deadline	Dec. 31, 2009 (phase 1 chemicals); Dec. 31, 2011 (phase 2 chemicals); Dec. 31, 2014 (phase 3 chemicals); Dec. 31, 2016 (all chemicals); Oct. 31, 2023 (Articles 3 and 4)



Source: CIA World Factbook



## **Excluded building blocks**

Intentionally Excluded Building Blocks	Hazardous to the ozone layer
Building Blocks Excluded due to Revision	Desensitized explosives; Pyrophoric gas; Chemicals under pressure



## Taiwan (Chinese Taipei)

On Nov. 4, 2022, the Taiwan Environmental Protection Administration (EPA) issued an amendment to the Regulation for the Labelling and Hazard Communication of Hazardous Materials affecting Articles 3, 4, 9 (site specific),10 (site specific),14.

#### Key points:

- Classification of toxic chemicals and chemicals of concern in conformance with the CNS 15030 standards (Article 3)
- Minimum label size identified based on container capacity (Article 4)
- Disclosure of substances and concentrations clarified (Article 14)

All Articles except for Articles 3 and 4 were effective immediately upon publication.

Deadline for compliance with Articles 3 and 4:

Oct. 31, 2023





#### **Standards**

On Jan. 26, 2015, 10 of the CNS 15030 standards were revised to align with rev. 4:

- CNS 15030 Z1051: General Rules
- CNS 15030 Z1051-2: Flammable gases (including chemically unstable gases)
- CNS 15030 Z1051-3: Aerosols
- CNS 15030 Z1051-4: Oxidizing gases
- CNS 15030 Z1051-5: Gases under pressure
- CNS 15030 Z1051-6: Flammable liquids
- CNS 15030 Z1051-7: Flammable solids
- CNS 15030 Z1051-11: Self-heating substances and mixtures
- CNS 15030 Z1051-16: Corrosive to metals
- CNS 15030 Z1051-20: Respiratory or skin sensitization
- CNS 15030 Z1051-23: Reproductive toxicity

The remaining seventeen CNS 15030 standards are based on rev. 2 but the technical content for these 17 standards has not changed through rev. 4.



#### **Notes**

SDS: SDS must be reviewed at minimum every 3 years

Labels: If container size is <100 ml, only include product identifier, pictogram and signal word

Certain hazard classes are not eligible for trade secret protection:

- Acute toxicity categories 1, 2 and 3
- Skin corrosion/irritation category 1
- Serious eye damage/eye irritation category 1
- Respiratory/skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity (STOT) single exposure (SE) category 1
- Specific target organ toxicity (STOT) repeated exposure (RE) category 1



## **Published non-mandatory GHS classifications**

~3500 classifications which are searchable in Chinese only





## Additional published non-mandatory GHS classifications

~6000 classifications released on Jan. 5, 2016, which are available in Chinese only

#### 危害物質 GHS 分類參考一覽表

備註:1.此一覽表之 GHS 危害分類僅根據其資料來源,因物質相關資料不充分且無測試數據依證,故其分類僅提供參考,建議依產品 責任精神向源頭廠商洽詢。

2.資料來源 A:歐盟 CLP法規調和分類結果、廠商聯合註冊提交分類結果或最多廠商通報之分類結果。 資料來源 B:國外化學品相關資料庫之分類結果建議。

CASNO	英文名稱	GHS危害分類	沸點(℃)	資料來源
32305-98-9	(-)-2,2-dimethyl-4,5-((diphenylphosphino)dimeth	腐蝕/刺激皮膚物質第2級、嚴重損傷/刺激眼睛物質第2A級、特	-	泉源 B
	yl)dioxolane	定標的器官系統毒性物質~單一暴露第3級、水環境之危害物質(慢		
		毒性)第2級		
1492-24-6	(-)-2-aminobutyric acid	腐蝕/刺激皮膚物質第2級、嚴重損傷/刺激眼睛物質第2A級、皮	/	東源 B
		庸過敏物質第1級、特定標的器官系統毒性物質~單一暴露第3級		
157-06-2	(-)-D-arginine hydrate	嚴重損傷/刺激眼睛物質第 2A 級	/	東源 B
19894-97-4	(-)-Myrtenol	易燃液體第 4 級、皮膚過敏物質第 1 級	220-222	東源 B
515-00-4	(-)-pin-2-ene-10-ol	易燃液體第 4 級、皮膚過敏物質第 1 級	220-222	来源 B
147-71-7	(-)-tartaric acid	腐恤/刺激皮膚物質第2級、嚴重損傷/刺激眼睛物質第2A級、特 定標的器官系統毒性物質~單一暴露第3級	-	来源 B
489-40-7	(-)-α-Gurjunene	吸入性危害物質第1級、特定標的器官系統毒性物質~單一暴露第3 級、水環境之危害物質(授毒性)第1級	115	來源 B
17257-71-5	(-)-α-methoxy-α-(trifluoromethyl)phenylacetic	腐蝕/刺激皮膚物質第2級、嚴重損傷/刺激眼睛物質第2A級、特	90	東源 B
	acid	定標的器官系統毒性物質~單一暴露第3級	(0.1	
			mmHg)	

1



## **GHS** Implemented

Changes proposed but final regulations not released

- Malaysia
- People's Republic of China



## Malaysia (proposed)

The Malaysian Department of Occupational Safety and Health (DOSH) published proposed amendments to the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations (CLASS) 2013 on Jun. 13, 2022. The comment period lasted until Aug. 15, 2022.

With the proposed amendments, Malaysia is moving to adopt rev. 8 of the UN GHS.

It is anticipated that the final version will be released in **2023**.





### Highlights of proposed amendments

Revision of the GHS endpoints for Flammable Gases, Aerosols and Chemicals under Pressure to align with rev. 8 of the UN GHS

Changing the cut-off value for Aspiration hazard in Table 3.2 from ≥ 10.0% to ≥1.0%

Including minimum dimensions of pictogram based on label size

Revising the small container size from 125 mL to 250 mL

Updating the label when there is any change in classification from within three months to six months

The draft was published only in Malay, but once the official amendments are issued in the Gazette, an English version will also be available.



## Malaysia (existing requirements)

Implementing Regulation	Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS); Industry Code of Practice on Chemical Classification and Hazard Communication 2014 (ICOP)
Administering Agency	Department of Occupational Safety and Health (DOSH) of the Ministry of Human Resources
Official Language	Bahasa Melayu and English
Based on Revision Number	3 (proposed update to Rev. 8)
Implementation Deadline	Apr. 16, 2015



Source: CIA World Factbook



Intentionally Excluded Building Blocks	Flammable liquid category 4; Acute toxicity category 5; Skin corrosion/irritation category 3; Serious eye damage/eye irritation category 2B; Aspiration hazard category 2; Hazardous to the aquatic environment – acute categories 2 and 3
Notes	Respiratory sensitization is only category 1 (not 1A and 1B); Skin sensitization is only category 1 (not 1A and 1B)
Building Blocks Excluded due to Revision	Aerosol category 3; Desensitized explosives; Chemically unstable gas A and B; Pyrophoric gas; Chemicals under pressure

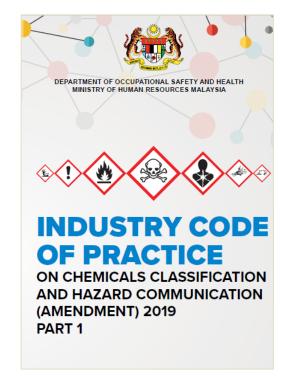


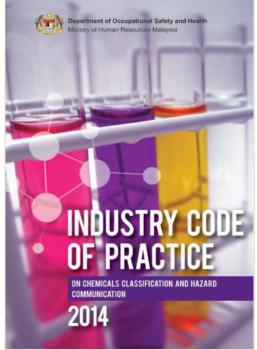
### **Industry Code of Practice (ICOP)**

Mandatory guide published Apr. 16, 2014; Part 1 revised Oct. 11, 2019

#### Four parts:

- Part 1: List of Classified Chemicals (662)
- Part 2: Chemical Classification
- Part 3: Hazard Communication: Labelling and Safety Data Sheets
- Part 4: Confidential Business Information (CBI)







### **Notes**

#### LABEL

- If there is a change in classification which results in a more severe classification, then the label must be updated within 3 months of the classification change (proposed to be extended to 6 months)
- Minimum dimensions of the label is dependent on container size
- Size of the pictogram is at least one fifteenth of the surface area of the label or at minimum 100 mm<sup>2</sup>
- If container size is <125 ml, include product identifier, supplier identifier, signal word, pictogram and a statement 'read SDS before use' (container size is proposed to increase to 250 ml)

#### An SDS must be revised if:

- New information on a hazardous chemical becomes available
- More than 5 years has elapsed since its last update
- Directed to do so by a DOSH officer

Content of the Packaging	Dimension of Labels (in millimetres)
Not exceeding 3 litres	If practicable, at least 52 x 74
Greater than 3 litres but not exceeding 50 litres	At least 74 x 105
Greater than 50 litres but not exceeding 500 litres	At least 105 x 148
Greater than 500 litres	At least 148 x 210



### **Published mandatory GHS classifications**

Found in Part 1 of the Industry Code of Practice (ICOP)

662 substances

No.	Chemical Name	CAS No	Classificati	on		Labelling	9
NO.	Chemical Name	CAS NO	Classification Code	H-code	Signal Word	H-code	Hazard Pictogram
1	acetaldehyde; ethanal	75-07-0	Flam. Liq. 1 Carc. 1B Eye Irrit. 2 STOT SE 3 Muta. 2	H224 H350 H319 H335 H341	Danger	H224 H350 H319 H335 H341	<b>(a) (b) (1)</b>
2	acetic acid ₱% ₱ () C ≥ 90%	64-19-7	Flam. Liq. 3 Skin Corr. 1A Eye Dam. 1	H226 H314 H318	Danger	H226 H314	<b>⋄</b> ◆
	(ii) 25% ≤ C < 90% ™		Skin Corr. 1B Eye Dam. 1	H314 H318	Danger	H314	<u> </u>
	(ii) 10% ≤ C < 25% <sup>10</sup>		Skin Irr. 2 Eye Irr. 2	H315 H319	Warning	H315 H319	<u>(!</u> )
3	acetic anhydride	108-24-7	Flam. Liq. 3 Acute Tox. 4 (inh) Acute Tox. 4 (oral) Skin Corr. 1B Eye Dam. 1	H226 H332 H302 H314 H318	Danger	H226 H302+H332 H314	<b>♠</b> ◆••••••••••••••••••••••••••••••••••••
4	acetone; propan-2-one; propanone	67-64-1	Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336	Danger	H225 H319 H336	<b>(2)</b>
5	acetonitrile; cyanomethane	75-05-8	Flam. Liq. 2 Acute Tox. 4 (oral) Acute Tox. 4 (inh) Acute Tox. 4 (dermal) Eye Irrit. 2	H225 H302 H312 H332 H319	Danger	H225 H302+H312+H332 H319	<b>(a) (!)</b>



# People's Republic of China (PRC) (proposed)

On Sept. 22, 2022, the Ministry of Industry and Information Technology (MIIT) issued a draft "Regulation on the Preparation of Chemical Safety Labels" to replace GB 15258-2009.

Comments were due on Oct. 29, 2022.

Anticipated timeline to release final draft is **Feb. 2024** (16 months after comment period conclusion on Oct. 29, 2022).





### GB 30000 series (proposed)

In June 2023, China's Ministry of Industry and Information Technology (MIIT) released 12 National Standards for public comments, including two China GHS standards for chemicals:

- GB 30000.1 Rules for Classification and Labelling of Chemicals (General Specifications) is being updated to rev. 8. Once finalized, it will replace GB 13690-2009 (General rule for classification and hazard communication of chemicals).
- A new standard to the GB 30000 series is also being proposed (GB 30000.30 (Desensitized Explosives)).

Comments were due Aug. 16, 2023, and is anticipated to be effective 6 months and 12 months respectively after finalization.

The remaining 28 standards (GB 30000.2-2013 to GB 30000.29-2013) remain on rev. 4 and are expected to be updated to rev. 8 once the above two proposed standards are finalized.



## People's Republic of China (existing requirements)

Implementing Regulation	Regulation on the Safe Management of Dangerous Chemicals (Decree No. 591)
Administering Agency	Ministry of Emergency Management (MEM) (formerly State Administration of Work Safety (SAWS))
Official Language	Simplified Chinese (Note: Chemical names shall be in both Chinese and English.)
Based on Revision Number	4 (GB 30000 series) but is <b>in process of being updated to rev. 8</b> ; 2 (GB/T 16483-2008 and GB 22234-2008)
Implementation Deadline	Dec. 21, 2011 (Decree 591); Nov. 1, 2014 (GB 30000 series)



Source: CIA World Factbook



### **Standards**

Classification	GB 13690-2009: General Rules for Classification and Hazard Communication of Chemicals (slated to be obsoleted when the GB 30000 series is revised); GB 30000.2-2013 to GB 30000.29-2013 (in process of being revised)
Labelling	GB 15258-2009: General Rules for Preparation of Precautionary Labels for Chemicals (in process of being revised); GB/T 22234-2008: Labeling of Chemicals based on GHS
Safety Data Sheets	GB/T 16483-2008: Safety Data Sheet for Chemical Products - Content and Order of Sections; GB/T 17519-2013: Guidance on the Compilation of Safety Data Sheets for Chemical Products



Intentionally Excluded Building Blocks	None
Building Blocks Excluded due to Revision	Desensitized explosives; Pyrophoric gas; Chemicals under pressure



### **Notes**

### SDS

SDS content must be reviewed at minimum every 5 years.

Emergency telephone number (Section 1) shall be a Chinese-based number and approved by the government, i.e., National Registration Center for Chemicals (NRCC)

Header of page of the SDS should include:

- The title 'Chemical Safety Data Sheet' in bold type and larger size
- Chemical name
- The latest revision date
- The initial preparation date
- A statement 'This SDS is prepared in accordance with GB/T 16483 and GB/T 17519.'
- SDS serial and version number (if available)

#### Label

Chemical name should be in both simplified Chinese and English

Emergency telephone number shall be a Chinese-based number and approved by the government, i.e., NRCC

Minimum dimensions of a label is dependent on container size

If container size is <100 ml, use of a 'simplified' label is allowed, i.e., precautionary statements can be omitted.



### **Published mandatory GHS classifications**

Found in the Guidance for the Implementation of China 2015 Inventory of Hazardous Chemicals

Issued by the State Administration of Work Safety (SAWS) on Sep. 2, 2015

Contains mandatory GHS classifications for 2828 chemicals.

Classifications with an asterisk are considered minimum classifications.

		/6	险化学品分类信息表			
\$号	品名	别名	英文名	CAS 号	危险性类别	备油
1	阿片	鴉片	opium	8008-60-4	特异性鞘器官毒性-反复捻触, 类别 2	
p.g	π̄.	沒氣;氣气	ammonia:liquid ammonia	7664-41-7	易期气体, 类别 2 加压气体 急性等性-吸入, 类别 3* 皮肤腐蚀/刺激, 类别 18 产品联络/银制数, 类别 1 危害水生环境-色性危害, 类别 1	
3	5-氨基-1, 3, 3-三甲基环 己甲胺	异锡尔刚二族: 3, 3, 5, 5-三甲基 -4, 6-二氨基-2-维环己酮: 1- 氨基-3-氨基甲基-3, 8, 5-三甲基环己烷	S-amino-1, 3, 3-trimethyl-cyclobexamenet benamine: isophorone diamine: 3-aminomethyl-3, 6, 5-trimethylc yclobexylemine: isophoronediamine: 3, 3, 5 -trimethyl-4, 6-diamino-2-enecyclobexam one: 4, 6-diamino-3, 5, 5-trimethyl-2-cycl o-hexen-1-one	2855-13-2	族映图性/刺激,类别 11 严重联格/探相影,类别 1 族映数碳钠,类别 1 危害火生环境-长期危害,类别 3	
4	5- 泵基 -3- 苯基 -1-[ 双 (N, N- 二甲基氨基氧膦 基)]-1, 2, 4-三唑[含量> 20%]	<b></b>	5-amino-3-phenyl-1, 2, 4-triazol-1-yl-N, N, N', N' -tetramethylphosphomic diamide (more than 20%) triamiphos; wepsyn	1031-47-6	急性毒性-经口,类别 2* 急性毒性-经应,类别 1	Bja

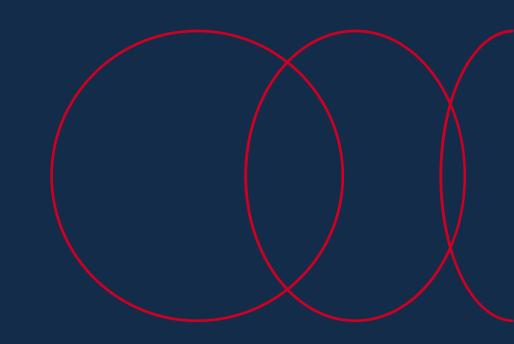
In process of being updated



## **GHS** Implemented

Changes anticipated but no drafts circulated

- Indonesia (2023)
- Japan (2024)
- Philippines (2026)
- Thailand (2025)
- Vietnam (2025)





## Indonesia

Implementing Regulation	Regulation No. 04/BIM/PER/1/2014 Regulation No. 44/M-DAG/PER/9/2009 regarding Supply, Distribution and Monitoring of Hazardous Substances as revised by Regulation No. 23/M-DAG/PER/9/2011 regarding Supply, Distribution and Monitoring of Hazardous Substances Regulation No. 87/M-IND/PER/9/2009 regarding the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as revised by Regulation No. 23/M-IND/PER/4/2013 Regulation No. 67/M-DAG/PER/11/2013 as revised by Regulation No. 10/M-DAG/PER/1/2014
Administoring Agoney	
Administering Agency	Ministry of Trade; Ministry of Industry
Official Language	Bahasa Indonesian
Based on Revision Number	4
Implementation Deadline	Jul. 12, 2013 (substances); Dec. 31, 2016 (mixtures)





Source: CIA World Factbook



Intentionally Excluded Building Blocks	Aerosol category 3; Chemically unstable gas A and B; Flammable liquids category 4; Self-reactive substances and mixture types C, D, E, F; Organic peroxides types C, D, E, F; Acute toxicity category 5; Skin corrosion/irritation category 3; Aspiration hazard category 2; Hazardous to the aquatic environment - acute categories 2 and 3
Building Blocks Excluded due to Revision	Desensitized explosives; Pyrophoric gas; Chemicals under pressure



### **Notes**

SDS and label content must be reviewed at minimum every 5 years

If container is <100 ml, then include the following label elements:

- Product identifier
- Pictogram(s)
- Signal word
- Hazard statement(s)

#### Size of label based on container size:

Kapasitas Wadah	Ukuran Label (Milimeter)
Tidak melebihi 3 Liter (Volume < 3L)	Jika memungkinkan, ukuran terkecil 52 x 74
Lebih dari 3 liter tetapi tidak melebihi 50 liter (3L ≤ Volume < 50L)	Ukuran terkecil 74 x 105
Lebih dari 50 liter tetapi tidak melebihi 500 liter (50L ≤ Volume < 500L)	Ukuran terkecil 105 x 148
Lebih dari 500 liter (500L ≤ Volume)	Ukuran terkecil 210 x 297

#### Size of pictogram based on label size:

Tabel 3. Uk	turan Piktogram Bahaya
Ukuran Label (Milimeter)	Ukuran Piktogram (Milimeter)
Jika memungkinkan, ukuran terkecil 52 x 74	Ukuran terkecil 15 x 15
Ukuran terkecil 74 x 105	Ukuran terkecil 25 x 25
Ukuran terkecil 105 x 148	Ukuran terkecil 35 x 35
Ukuran terkecil 210 x 297	Ukuran terkecil 70 x 70



### **Philippines**

National GHS Implementation Committee established in 2004

Joint Administrative Order (JAO) No. 1 Series of 2009: The Adoption and Implementation of GHS issued on July 15, 2009

- Legal document that specifies the duties and responsibilities of government agencies in the adoption of GHS
- Expectation was that this would 'hasten' GHS implementation in the agricultural, workplace, transport and consumer products sectors





### JAO No. 1

Department of Trade and Industry (DTI), through its associated Board of Investments (BOI), is the lead agency for GHS implementation

Waiting for all Implementing Rules and Regulations (IRR) to be finalized National GHS Implementing and Coordinating Committee members:

- Department of Agriculture (DA)
- Department of Environment and Natural Resources (DENR) Environmental Management Bureau (EMB)
- Department of Finance (DOF) Bureau of Customs (BOC)
- Department of Health (DOH) Food and Drug Administration (FDA) labelling for household/urban hazardous substances is voluntary
- Department of Interior and Local Government (DILG)
- Department of Labor and Employment (DOLE) Bureau of Working Conditions (BWC)
- Department of Trade and Industry (DTI) Bureau of Investments (BOI)
- Department of Transportation and Communications (DOTC)



## **Philippines: DENR**

Implementing Regulation	DENR Administrative Order (DAO) No. 2015-09: Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labeling of Chemicals in Preparation of Safety Data Sheet (SDS) and Labeling Requirements of Toxic Chemical Substances
Administering Agency	Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR)
Official Language	Filipino and English
Based on Revision Number	4
Implementation Deadline	Dec. 31, 2016 (Single substances and compounds on the Chemical Control Order (CCO) and Priority Chemical List (PCL)); Dec. 31, 2017 (High volume toxic chemicals); Dec. 31, 2018 (Toxic chemicals under the IATA and IMDG list of Dangerous Goods); Dec. 31, 2019 (Mixtures)



Source: CIA World Factbook



Intentionally Excluded Building Blocks	Flammable liquid category 4; Acute toxicity category 5; Skin corrosion/irritation category 3; Serious eye damage/eye irritation category 2B; Aspiration hazard category 2; Hazardous to the aquatic environment - acute categories 2 and 3; chronic categories 3 and 4
Notes	Respiratory sensitization is only category 1 (not 1A and 1B); Skin sensitization is only category 1 (not 1A and 1B)
Building Blocks Excluded due to Revision	Desensitized explosives; Pyrophoric gas; Chemicals under pressure



### **Guidance manual for DAO 2015-011**

EMB Memorandum Circular No. 2015-011 (issued by DENR-EMB on Aug. 24, 2015)

#### Contains 5 parts:

- A. Guidance Manual for Classification
- B. Initial List of Single Substances and Compounds Covered Under the Chemical Control Order (CCO) and Priority Chemical List (PCL)
- C. GHS Pictograms
- D. Guidance Manual for the Preparation of Labels
- E. Guidance Manual on the Preparation of Safety Data Sheets (SDS)

GUIDANCE MANUAL FOR DEPARTMENT
ADMINISTRATIVE ORDER 2015-09, "RULES
AND PROCEDURES FOR THE
IMPLEMENTATION OF THE GLOBALLY
HARMONIZED SYSTEM (GHS) OF
CLASSIFICATION AND LABELLING OF
CHEMICALS IN PREPARATION OF SAFETY
DATA SHEET (SDS) AND LABELING
REQUIREMENTS OF TOXIC CHEMICAL
SUBSTANCES"

NRC T



## **Philippines: DOLE**

Implementing Regulation	Guidelines for the Implementation of Globally Harmonized System (GHS) in Chemical Safety Programs in the Workplace (DOLE Order No. 136-14)
Administering Agency	Bureau of Working Conditions (BWC) of the Department of Labor and Employment (DOLE)
Official Language	Filipino and English
Based on Revision Number	Latest version
Implementation Deadline	Mar. 16, 2015



Intentionally Excluded Building Blocks	None
Building Blocks Excluded due to Revision	None as DOLE Order No. 136-14 refers to the latest version of GHS



### **IRR Status: DOLE – BWC**

Finalized draft amendments to Rule 1090 titled 'Hazardous Materials' for GHS Implementation in the Workplace.

Guidelines for the Implementation of Globally Harmonized System (GHS) in Chemical Safety Program in the Workplace (Administrative Order (AO) No. 136-14)) signed on Feb. 28, 2014; posted on Mar. 6, 2014; enforced on Mar. 16, 2015.

Scope: All workplaces engaged in the manufacture, use, storage of industrial chemicals in the private sector including their supply chain.

All chemicals must be properly labeled and have SDSs.

CBI claims are possible but are limited to chemical names and their concentrations in mixtures.



### What to expect

- DENR-EMB is considering transitioning to rev. 7 or 8 from rev. 4
- DOLE-BWC is considering transitioning to rev. 8
- No timeline released, but perhaps 2026



### **Thailand**

Implementing Regulation	Notification on the System of Hazard Classification and Communication of Hazardous Substances (B.E. 2555-2012)
Administering Agency	Hazardous Substances Control Bureau of the Department of Industrial Works (DIW) of the Ministry of Industry (MOI)
Official Language	Thai
Based on Revision Number	3
Implementation Deadline	Mar. 13, 2013 (substances); Mar. 13, 2017 (mixtures)





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Intentionally Excluded Building Blocks	None
Building Blocks Excluded due to Revision	Aerosol category 3; Chemically unstable gas A and B; Desensitized explosives; Pyrophoric gas; Chemicals under pressure
Notes	Skin corrosion/irritation category 1 instead of 1A, 1B and 1C



## **Vietnam**

Implementing Regulation	Law on Chemicals No. 6/2007/QH12; Circular No. 04/2012/TT-BCT; Circular No. 20/2013/TT-BCT
Administering Agency	Ministry of Industry and Trade (MIT); Vietnam Chemicals Agency (Vinachemia)
Official Language	Vietnamese
Based on Revision Number	2 (all versions of GHS – except for rev. 1 – are acceptable)
Implementation Deadline	Mar. 30, 2014 (substances); Mar. 30, 2016 (mixtures)







Intentionally Excluded Building Blocks	Hazardous to the ozone layer
Building Blocks Excluded due to Revision	Desensitized explosives; Chemicals under pressure
Notes	Skin and Respiratory Sensitization category 1 instead of 1A and 1B



### **Notes**

#### SDS

- 16 section format (outlined in Appendix 17 of Circular No. 28/2010/TT-BCT)
- Each page of the SDS must include page number of total
- 15 days to update SDSs when new information is available

#### Labels

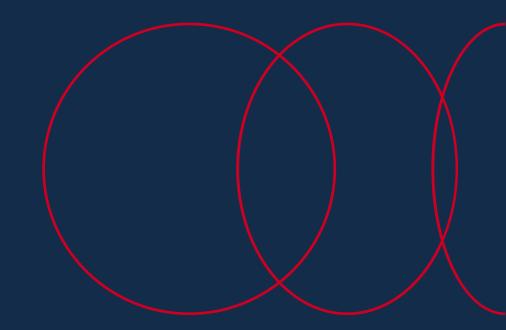
- In addition to the required GHS label elements, the following also must be included:
  - Ingredient disclosure for all ingredients that contribute to health hazards including its concentration
  - Date of manufacture: start with NSX followed by the date in the order of day, month and year, i.e., NSX 18082015
  - Expiration date: start with HSD
  - Product origin: marked with 'made in....' or 'origin....'
- Allowance for removal of certain information on small container labels



## **GHS** Implemented

No changes anticipated

- Australia
- South Korea





### **Australia**

Implementing Regulation	Model Work Health and Safety (WHS) Regulations
Administering Agency	Safe Work Australia
Official Language	English
Based on Revision Number	7
Implementation Deadline	Deadline: Dec. 31, 2022





Source: CIA World Factbook



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Intentionally Excluded Building Blocks	Flammable gas category 2; Acute toxicity category 5; Skin corrosion/irritation category 3; Serious eye damage/eye irritation category 2B; Aspiration hazard category 2; Hazardous to the aquatic environment; Hazardous to the ozone layer
Building Blocks Excluded due to Revision	Chemicals under pressure



### **Guidance materials**



Australia Model Code
of Practice on the
Preparation of Safety
Data Sheets for
Hazardous Chemicals
(last amended Jun. 2023)



Australia Model Code of Practice on the Labelling of Workplace Substances (last amended Jun. 2023)



Australia Classifying Hazardous Chemicals – National Guide (last amended Jun. 2023)



### **Notes**

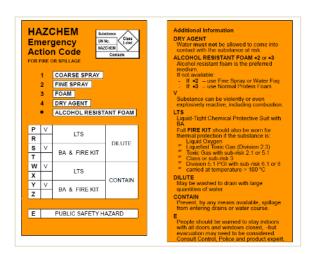
SDS and label content must be reviewed at minimum every 5 years.

Section 1 of the SDS requires the use of an Australian name, address and telephone number. The emergency telephone number must also be Australian.

Section 14 of the SDS should include the Hazchem or Emergency Action Code

Size of label based on container size:

Container capacity	Minimum hazard pictogram dimensions	Minimum text size
≤ 500 mL	15 x 15 mm	2.5 mm
> 500 mL and ≤ 5 L	20 x 20 mm	3 mm
> 5 L and ≤ 25 L	50 x 50 mm	5 mm
≥ 25 L	100 x 100 mm	7 mm





### **HCIS** updated GHS classifications (non-mandatory)

CAS No	Chemical Name	Hazard Category	Pictogram Codes and Signal Word	Hazard Statement Code	Hazard Statement	Notes	Sources
108-88-3	Toluene; Benzene, methyl-	Flammable liquid – category 2; Skin irritation – category 2; Specific target organ toxicity (repeated exposure) – category 2; Reproductive toxicity – category 1A; Specific target organ toxicity (single exposure) – category 3; Aspiration hazard – category 1	GHS02; GHS07; GHS08; Danger	H225; H315; H373; H360; H336; H304	Highly flammable liquid and vapour; Causes skin irritation; May cause damage to organs through prolonged or repeated exposure; May damage fertility or the unborn child; May cause drowsiness or dizziness; May be fatal if swallowed and enters airways	8	N

Classifications for about 55 existing substances were revised in August 2023 with new classifications added for about 245 substances bringing the total of classified substances to over 7000.

HCIS = Hazardous Chemicals Information System



## **South Korea**

Implementing Regulation	Chemical Control Act (CCA) (formerly Toxic Chemicals Control Act), its Enforcement Decree and Enforcement Regulations; K-REACH, its Enforcement Decree and Enforcement Regulations; Industrial (Occupational) Safety and Health Act, its Enforcement Decree and Enforcement Regulations; Standard for Classification, Labelling of Chemical Substances and Material Safety Data Sheet (last amended in Reb. 2023); Dangerous Substances Safety Control Act, its Enforcement Decree and Enforcement Regulations; Regulation on Classification and Labeling of Chemical Substance; Standards for Classification and Labeling of Dangerous Substances
Administering Agency	National Institute of Environmental Research (NIER) of the Ministry of Environment (MOE); Ministry of Employment and Labor (MoEL formerly known as the Ministry of Labor (MOL)); Ministry of Public Administration and Security (MOPAS formerly MPSS formerly known as the National Emergency Management Agency (NEMA))
Official Language	Korean (English chemical name for R&D chemicals used in labs is permitted)
Based on Revision Number	6 (MOE); 6 (MOEL); 6 (MPSS)
Implementation Deadline	Jul. 1, 2010; Dec. 1, 2010; Jul. 1, 2013; Jul. 1, 2015; Jan. 16, 2021; Feb. 2023





# **Excluded building blocks**

Intentionally Excluded Building Blocks	Flammable liquid category 4 (MOE); Acute toxicity category 5 (MOE and MOEL is optional); Skin corrosion/irritation category 3; Hazardous to the aquatic environment - acute categories 2 and 3		
Building Blocks Excluded due to Revision	Chemically unstable gas A and B (MOE and MOEL); Desensitized explosives; Chemicals under pressure		
Notes	<ul> <li>Skin corrosion/irritation category 1 instead of 1A, 1B and 1C; Skin and Respiratory Sensitization category 1 instead of 1A and 1B</li> <li>While Skin corrosion/irritation shall in principle fall under Categories 1 and 2, Category 1 may be further classified into 1A, 1B and 1C.</li> <li>While Serious eye damage/eye irritation shall be in principle classified as Categories 1 and 2, Category 2 may be further divided to Categories 2A and 2B and used.</li> <li>Respiratory sensitization and Skin sensitization shall be in principle Category 1, but it may be further divided into Categories 1A and 1B and used.</li> </ul>		



Source: CIA World Factbook



### Published non-mandatory/mandatory GHS classifications

GHS classifications for MOE chemicals are mandatory unless you have data to justify a different classification

As of July 2023, MOE (through NIER) published GHS classifications for 2195 designated toxic chemicals; 101 restricted substances; 110 prohibited substances; 97 accident precaution substances







GHS classifications as published by KOSHA are not mandatory



#### **Notes**

#### SDS

• Contact information (Section 1) must be domestic. The emergency telephone number must ring in Korea and be answered in Korean.

#### Label

- If container size is <100 ml, the hazard and precautionary statements can be omitted
- Minimum dimensions of a label are dependent on container size:

용기 또는 포장의 용량	인쇄 또는 표찰의 규격
용량≥500 L	450cm 이상
200 L ≤용량<500 L	300cm 이상
50 L ≤용 량<200 L	180c㎡ 이상
5 L ≤용 량<50 L	90㎡ 이상
용 량<5 L	용기 또는 포장의 상하면적을 제외한 전체 표면적의 5%이상



#### **South Korea**

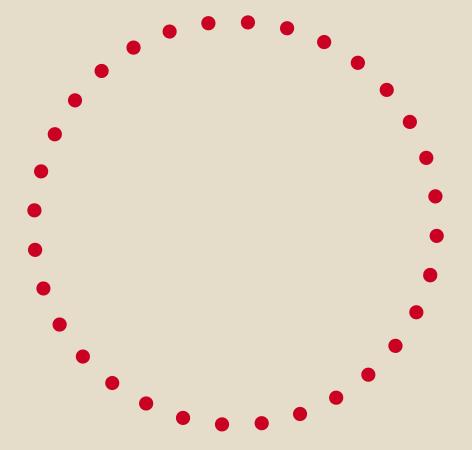
On Jan. 27, 2023, the MOEL (Ministry of Employment and Labor) released proposed changes to the Standards for Classification and Labeling of Chemical Substances and Material Safety Data Sheets with comments due by Feb. 6, 2023.

The draft of the proposal was finalized without any revision on Feb. 15, 2023, as MOEL Public Notice 2023-9.

Minor administrative revisions were made.



# Resources



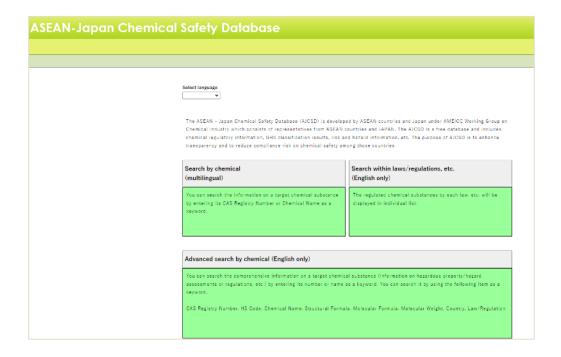


#### **ASEAN – Japan Chemical Safety Database**

11 participating countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam

#### Search results include:

- General chemical information such as SMILES notation
- Chemical regulatory information
- GHS classification results (if available)
- Risk and hazard information





#### **APEC Chemical Dialogue Member Countries**

- Australia
- Brunei Darussalam
- Canada
- Chile
- Hong Kong
- Indonesia
- Japan
- Malaysia
- Mexico
- New Zealand
- Papua New Guinea

- People's Republic of China
- Peru
- The Philippines
- Russian Federation
- Singapore
- South Korea
- Taiwan
- Thailand
- United States
- Vietnam



**APEC = Asia Pacific Economic Cooperation** 

#### Resources: Asia Pacific (Australia)

- Safe Work Australia: <a href="http://www.safeworkaustralia.gov.au/">http://www.safeworkaustralia.gov.au/</a>
- Australia Model Health and Workplace Safety Regulation: <a href="https://www.safeworkaustralia.gov.au/doc/model-whs-regulations">https://www.safeworkaustralia.gov.au/doc/model-whs-regulations</a>
- Australia Code of Practice for Labelling:
   <u>model\_code\_of\_practice\_labelling\_of\_workplace\_hazardous\_chemicals.pdf</u>
   (safeworkaustralia.gov.au)
- Australia Code of Practice for SDSs: <u>model code of practice preparation safety data sheets for hazardous chemicals.pdf</u> (safeworkaustralia.gov.au)
- Australia National Guide to Classifying Chemicals:
   classifying hazardous chemicals national guide.pdf (safeworkaustralia.gov.au)
- Australia HCIS: <a href="https://hcis.safeworkaustralia.gov.au/">https://hcis.safeworkaustralia.gov.au/</a>



#### Resources: Asia Pacific (Indonesia)

- Regulation 04/BIM/PER/1/2014 on Technical Guidance and Supervision Instructions on the Implementation of Globally Harmonized System of Classification and Labelling of Chemicals (GHS): <a href="http://jdih.kemenperin.go.id/site/baca\_peraturan/927">http://jdih.kemenperin.go.id/site/baca\_peraturan/927</a> (Indonesian)
- Indonesia Regulation 87/M-IND/PER/9/2009 Regarding Globally Harmonized System of Classification and Labelling of Chemicals: <a href="http://jdih.kemenperin.go.id/site/baca\_peraturan/927">http://jdih.kemenperin.go.id/site/baca\_peraturan/927</a> (Indonesian)
- Indonesia Regulation No. 44/M-DAG/PER/9/2009 regarding Supply, Distribution and Monitoring of Hazardous Substances as revised by Regulation No. 23/M-DAG/PER/9/2011 regarding Supply, Distribution and Monitoring of Hazardous Substances: <a href="http://www.flevin.com/id/lgso/translations/JICA%20Mirror/english/4609\_23\_M-DAG\_PER\_9\_2011\_e.html">http://www.flevin.com/id/lgso/translations/JICA%20Mirror/english/4609\_23\_M-DAG\_PER\_9\_2011\_e.html</a> (Indonesian)
- Indonesia Regulation 23/M-IND/PER/4/2013 Regarding Amendment of Regulation of Ministry of Industry No. 87/M-IND/PER/9/2009 regarding Globally Harmonized System (GHS) of Classification and Labelling of Chemicals: <a href="http://jdih.kemenperin.go.id/site/baca\_peraturan/927">http://jdih.kemenperin.go.id/site/baca\_peraturan/927</a> (Indonesian)



#### Resources: Asia Pacific (Japan)

- Japan Ministry of Health, Labor and Welfare (MHLW): www.mhlw.go.jp/english/
- Japan Ministry of Economy, Trade and Industry (METI): <a href="www.meti.go.jp/english/index.html">www.meti.go.jp/english/index.html</a>
- Japan Ministry of the Environment (MoE): <a href="www.env.go.jp/">www.env.go.jp/</a>
- Japan SafeNite: www.safe.nite.go.jp/english/ghs\_index.html#results
- Japan J-Check: <a href="https://www.nite.go.jp/chem/jcheck/top.action?request\_locale=en">https://www.nite.go.jp/chem/jcheck/top.action?request\_locale=en</a>
- Japan UL Solutions article: <a href="https://www.ul.com/news/japan-updates-sds-requirements-under-ishl">https://www.ul.com/news/japan-updates-sds-requirements-under-ishl</a>



#### Resources: Asia Pacific (Malaysia)

- Malaysia DOSH Notice of Proposed Amendments to CLASS: http://202.75.5.148/index.php/list-of-documents/eparticipation/2022-2
- Malaysia Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013:
   <a href="https://www.dosh.gov.my/index.php/legislation/eregulations/regulations-under-occupational-safety-and-health-act-1994-act-514/1125-01-occupational-safety-and-health-classification-labelling-and-safety-data-sheet-of-hazardous-chemicals-regulations-2013/file</a>
- Malaysia Industry Code of Practice: <a href="https://www.dosh.gov.my/index.php/legislation/codes-of-practice/chemical-management/3460-industry-code-of-practice-on-chemicals-classification-and-hazard-communication-amendment-2019-part-1/file</a>
- Malaysia UL Solutions article: <a href="https://www.ul.com/news/malaysia-moves-adopt-ghs-revision-8">https://www.ul.com/news/malaysia-moves-adopt-ghs-revision-8</a>



#### Resources: Asia Pacific (New Zealand)

- New Zealand Hazardous Substances (Hazard Classification) Notice 2020: https://gazette.govt.nz/notice/id/2020-au4842
- New Zealand GHS update portal: https://www.epa.govt.nz/industry-areas/hazardous-substances/new-zealands-new-hazard-classification-system/
- New Zealand User Guide to Thresholds and Classification under the HSNO Act: <a href="https://www.epa.govt.nz/assets/Uploads/Documents/Hazardous-Substances/Guidance/83fc330b67/">https://www.epa.govt.nz/assets/Uploads/Documents/Hazardous-Substances/Guidance/83fc330b67/</a> thresholds-classification-quidance.pdf
- HSNO Chemical Classification Database (CCID): https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/



#### Resources: Asia Pacific (People's Republic of China)

- Regulation on the Safe Management of Dangerous Chemicals (Decree No. 591): <a href="http://www.gov.cn/zwgk/2011-03/11/content">http://www.gov.cn/zwgk/2011-03/11/content</a> 1822783.htm (Chinese)
- People's Republic of China draft revision to GB 15258-2009:
   公开征集对《化学品安全标签编写规定》等7项强制性国家标准制修订计划项目 的意见 (miit.gov.cn) (Chinese)
- GB 16483-2008: http://hxp.nrcc.com.cn/group1/M00/00/02/Cs4BDIsCbLyAQxh5ADuv03tPw-o648.pdf (Chinese)
- Notice of public solicitation of comments for 12 mandatory national standards including the Rules for Classification and Labeling of Chemicals (GB 30000.1 and GB 30000.30): <a href="https://www.miit.gov.cn/gzcy/yjzj/art/2022/art\_39fa2ec970dc4e1ea1fa4f9a5d6235b4.html">https://www.miit.gov.cn/gzcy/yjzj/art/2022/art\_39fa2ec970dc4e1ea1fa4f9a5d6235b4.html</a> (Chinese)
- People's Republic of China UL Solutions articles:
  - https://www.ul.com/news/china-drafts-administrative-rules-hazardous-chemicals
  - https://www.ul.com/news/china-plans-revise-ghs-labelling-standard-gb-15258-2009



#### Resources: Asia Pacific (Singapore)

- Singapore: https://www.singaporestandardseshop.sg/Search/Results?searchString=ss%20586
- SS 586 series of standards: https://www.singaporestandardseshop.sg/Home/Index
- Safety and Health (ACOP) Notification 2022: wsh-acop-notification-2022.ashx (tal.sg)
- Singapore UL Solutions article: https://www.ul.com/news/singapore-adopts-ghs-7th-edition-its-labelling-and-sdss



#### Resources: Asia Pacific (South Korea)

- South Korea "Standards on Classification and Labeling of Chemical Substances and Material Safety Data Sheet" on Nov. 11, 2020, as MOEL's Notification No. 2020-13: <a href="http://www.moel.go.kr/info/lawinfo/instruction/view.do?bbs\_seq=20201100504">http://www.moel.go.kr/info/lawinfo/instruction/view.do?bbs\_seq=20201100504</a> (Korean)
- South Korea NIER Chemical Information System portal: <a href="https://ncis.nier.go.kr/ghs/hcs/en/search/search">https://ncis.nier.go.kr/ghs/hcs/en/search/search</a> en 01.jsp (Korean)
- KOSHA MSDS portal: <u>msds.kosha.or.kr/msds/BJ00100M01.do?login\_error=2</u> (Korean)
- South Korea Ministry of the Environment: <u>http://eng.me.go.kr/</u> (Korean)



#### Resources: Asia Pacific (Taiwan)

- Taiwan Regulation for the Labelling and Hazard Communication of Hazardous Materials: https://gazette.nat.gov.tw/egFront/detail.do?metaid=136231&log=detailLog (Chinese)
- Taiwan published GHS classifications: https://ghs.osha.gov.tw/CHT/masterpage/index CHT.aspx (Chinese)
- Ministry of Labor (MOL formerly Council of Labor Affairs (CLA)): http://english.mol.gov.tw/
- Taiwan UL Solutions article: <a href="https://www.ul.com/news/taiwan-amends-regulations-labeling-and-sds">https://www.ul.com/news/taiwan-amends-regulations-labeling-and-sds</a>



#### **Resources: Asia Pacific (Thailand)**

 Thailand Notification of the MOI Concerning Hazard Classification and Communication System if Hazardous Substance B.E. 2555 (2012): <a href="http://www.ratchakitcha.soc.go.th/DATA/PDF/2555/E/048/15.PDF">http://www.ratchakitcha.soc.go.th/DATA/PDF/2555/E/048/15.PDF</a> (Thai)



## Resources: Asia Pacific (Vietnam)

 Vietnam Chemicals Agency (Vinachemia): https://www.moit.gov.vn



#### **Resources: Asia Pacific**

- APEC Chemical Dialogue: https://www.apec.org/groups/committee-on-trade-and-investment/chemical-dialogue
- ASEAN-Japan Chemical Safety Database: ASEAN-Japan Chemical Safety Database (ajcsd.org)
- GHS Status of Implementation (last updated by UNECE in June 2023):
   GHS implementation by country 2023-06 0.pdf (unece.org)





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