



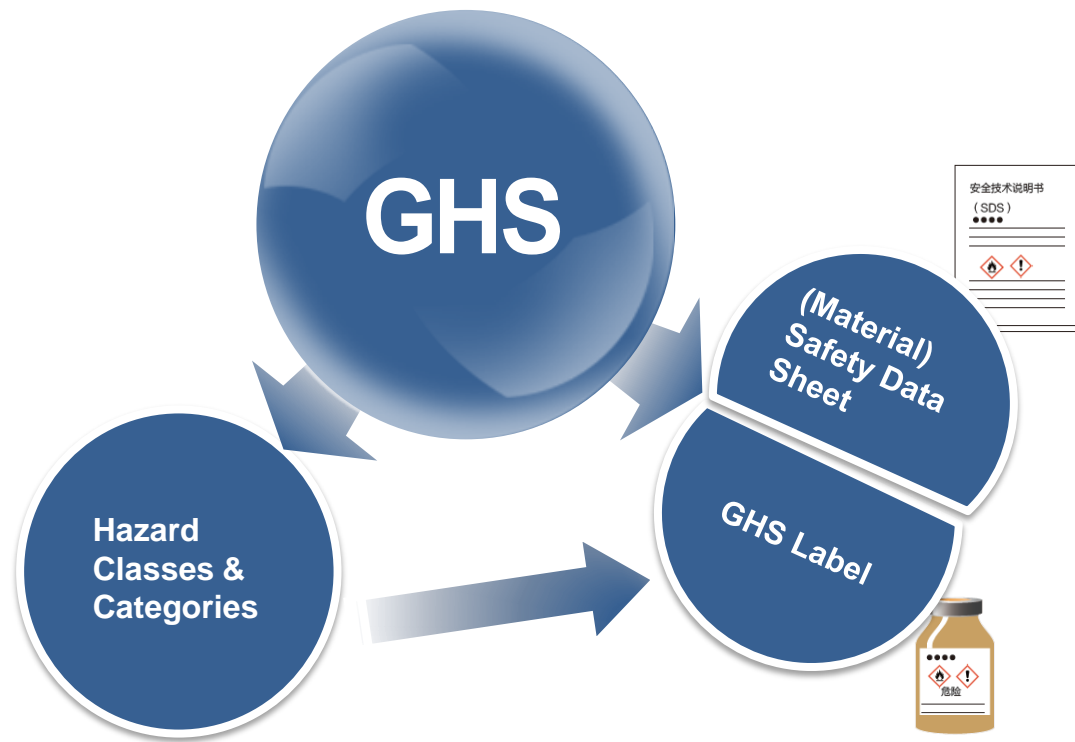
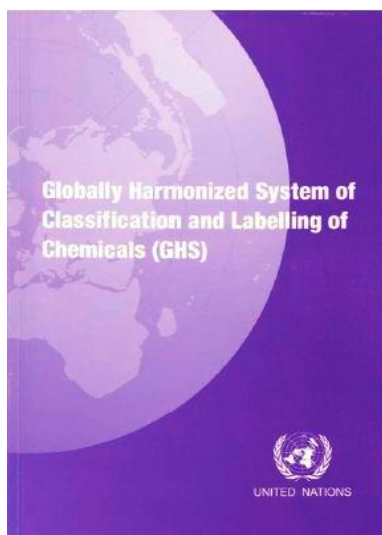
# The GHS Updates In 2019 & Compliance Tips In Asia Countries



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# What is GHS



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- **The GHS updates in 2019**
- **GHS requirements in China, South Korea and Japan**
- **Difference among EU CLP, China GB, Korea MOEL and Japan JIS**
- **Compliance suggestions for chemicals exporting to China**

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## Newly published

- UN GHS 8th rev. purple book
- CLP updates
- Japan

## New draft available

- South Korea
- Israel

## Consultation & Planning

- Australia&New Zealand, the US&Canada, Brazil&Argentina, Singapore, Malaysia, Chile
- EAEU (Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia), South Africa, Kenya, Sierra Leone

## Classification criteria

- Explosive
- Aerosols
- Skin corrosion/irritation
- Specific Target Organ Toxicity

## New hazard category + communication elements

- chemicals under pressure

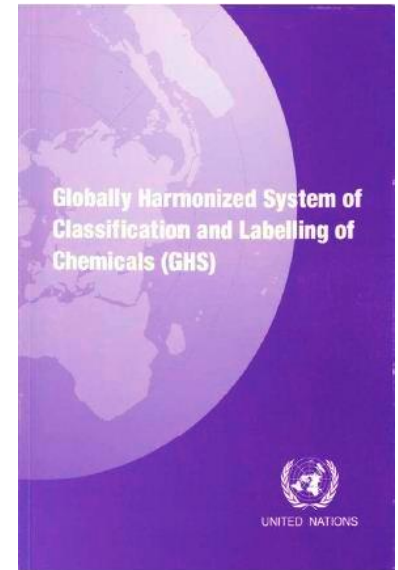
## New hazard (not included in any category)

- dust explosions

## New pictogram

- keep out of reach of children

## Example 10: Labelling of - sets or kits



## Adaptation to Technical Progress (ATP)

*“The harmonised classification and labelling of hazardous substances is updated through an “Adaptation to Technical Progress (ATP)” adopted yearly by the European Commission, following the opinion of the Committee for Risk Assessment (RAC). Other changes to the legal text may also be implemented through an ATP.”*

- from ECHA website

### 12th ATP

- Implements the 6th and 7th amendments of the purple book
- The changes will apply from 17 October 2020.

### 13th ATP

- Harmonised classification (Annex VI) updates
- The changes will apply from 1 May 2020.

## Occupational Safety and Health Act (Osha) amendment

- Including several updates
- The updates for material data safety sheets (MSDS) will apply from 16 January 2021.

## New requirements

- Full composition disclosure required
- Submit the MSDS to MoEL prior to manufacture or import ( <100kg/y research purposes exempted)
- Separate document including non-hazardous ingredients to MoEL
- For trade secret, prior approval from MoEL



## Revised according to the 6th rev. UN GHS(purple book) in May 2019

- JIS Z 7252 – Classification of Chemicals Based on GHS
- JIS Z 7253 – Hazard Communication of Chemicals Based on GHS - Labelling and Safety Data Sheet
- Apply from 24 May 2022 (3-year transition period)

<https://www.jisc.go.jp> (not available when visiting the website outside Japan)

### JIS詳細表示

規格番号	JISZ7252		
規格名称	GHSに基づく化学品の分類方法		
主務大臣	経済産業, 厚生労働		
制定年月日	2009/10/20		
最新改正年月日	2019/05/25	最新確認年月日	

### JIS詳細表示

規格番号	JISZ7253		
規格名称	GHSに基づく化学品の危険有害性情報の伝達方法-ラベル, 作業場内の表示及び安全データシート(SDS)		
主務大臣	経済産業, 厚生労働		
制定年月日	2012/03/25		
最新改正年月日	2019/05/25	最新確認年月日	2016/10/25

## SI 2302 Part 1 on classification, labelling, and packaging of chemicals

- 3-year transition period
- In Hebrew

*"This draft standard revision is based, with a few changes and national deviations on the UN document "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)". This regulation is gradually replacing the 2 European directives which were the base for the standard's earlier edition (67/548/EEC and 1999/45/EC) and that should be cancelled on 1 June 2015. The UN regulation's parts dealing with substances had already entered into force in Europe in 2010 and the regulation's parts dealing with mixtures should enter into force in 2015."*

- From WTO-TBT notification

## The US, Canada, Australia

- May update to 7th rev. UN GHS
- Safe Work Australia (SWA) was consulting

## Brazil, Argentina, Chile

- 6th rev.

## Singapore

- 6th or 7th

## Malaysia

- Update the classification list in ICOP 2014

## EAEU

- Implement GHS from 2 June 2021

## South Africa

- Implement GHS from 2020 (draft 2018)

## Kenya

- 7th for industrial chemicals only

## Sierra Leone

- Implement GHS in 2020~2023

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## Regulations on the safety management of hazardous chemicals (State Council Decree 591) 2011

### Import & export

Announcement on issues related to import and export of dangerous chemicals and their packaging inspection and supervision 2012  
Local guidance: Implementation on "Intelligent Customs Clearance" mode by Shanghai Inspection and Quarantine Bureau (Trial) 2017

Measures on the registration of hazardous chemicals (SAWS 53) 2012

### Registration & Notification

### Storage

Measures on the license of hazardous chemicals (SAWS 55) 2012

Regulations for the management of road dangerous goods transportation (Ministry of Transportation Decree No.2) 2013

### Transport

## The national standard

- GB 30000.2-29-2013: Rules for classification and labelling of chemicals
- GB 15258-2009: General rules for preparation of precautionary label for chemicals
- GB/T 16483-2008: SDS for Chemical Products - Content and Order of Sections
- GB/T 17519-2013: Guidance on the compilation of safety data sheet for chemical products

## The hazardous chemicals list (2015 ver. 2828 items)

- Compulsory requirements for classification
- Supplier can add more classification and/or upgrade the hazards which marked with <\*> in the guidance of implementation of hazardous chemicals list

## Published books

- Manual of hazardous chemicals inventory (SAWS, NRCC)
- Compilation of Safety Data Sheet for hazardous chemicals ver3.0 (NRCC, SINOPEC, SKLSCC )



## Links in Annex II of GB/T 17519-2013

SDS data resource SDS 编写数据库	第 1 部分	第 2 部分	第 3 部分	第 4 部分	第 5 部分	第 6 部分	第 7 部分	第 8 部分	第 9 部分	第 10 部分	第 11 部分	第 12 部分	第 13 部分	第 14 部分	第 15 部分	第 16 部分
Accelrys: (美国) 化学物质毒性效应登记数据库 Accelrys:Registry of Toxic Effects of Chemical Substances(RTECS) <a href="http://ccinfoweb.ccohs.ca/rtecs/search.html">http://ccinfoweb.ccohs.ca/rtecs/search.html</a>		✓						✓			✓					



## Chemical Control Act

- Mandatory for “Toxic substance”

Nonyl phenol, potassium salt (1:1), cas번호: 27936-43-2

Chemical Information	NIER's No	Content(%)	Regulation information on contents
Toxic substance	2019-1-9 14(신규화 학물질)	Nonyl phenol, potassium salt (1:1) or mixture containing 2.5% and above	

## Occupational Health and Safety Act

- All chemicals with GHS classification
- 2019 updated

## Relevant MoEL Notice

- MoEL Notice No.2016-19: Criteria for Classification and Labeling of Chemical Substances and Safety Data Sheets (In Korean)
- MoEL Notice No.2018-66: updated the OSHA requirement, including providing MSDS to workers and application of CBI information






Classification of substance can be searched on <http://ncis.nier.go.kr/>

• Formalin : Formaldehyde  
• CAS No : 50-00-0

ALL    General Information    **Classification and Labelling**

● Classification and Labelling

Signal words : **Danger**

[GHS02]    [GHS04]    [GHS05]    [GHS06]    [GHS08]

M Value : -  
UN No : 1198 , 2209

**Print Label**

Hazard Classification		Hazard entered	
Flammable gases	1	H220	Extremely flammable gas.
Gases under pressure	2	H280	Contains gas under pressure; may explode if heated.
Acute Oral Toxicity	3	H301	Toxic if swallowed.
Acute dermal toxicity	3	H311	Toxic in contact with skin.
Acute Inhalation Toxicity	2	H330	Fatal if inhaled.
Skin corrosion/irritation	1	H314	Causes severe skin burns and eye damage.
Skin sensitization	1	H317	May cause an allergic skin reaction.

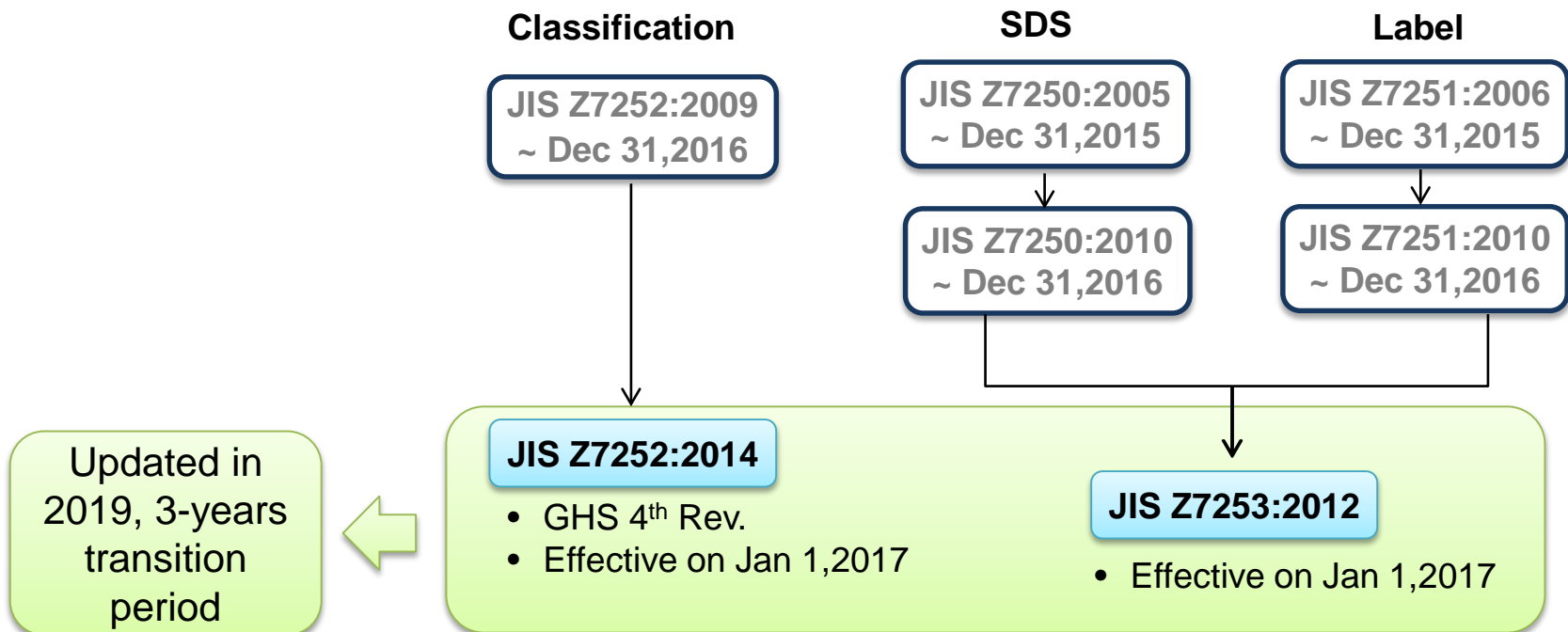
# Japan – SDS/label requirements



Laws	Substances	SDS	Labeling
PRTR Law	Specific Class I: 15 substances Class I: 462 substances Class II: 100 substances	Obligation	Reasonable efforts
Industrial Safety and Hygiene Law	Table 3 and 9: 640 substances Table 9: 640 substances	Obligation	Obligation
	Other classified hazardous substances and mixtures	Reasonable efforts	Reasonable efforts
Poisonous and Deleterious Substances Control Law	Poisonous substances: 145 Deleterious substances: 392	Obligation	Obligation

## JIS standards (updated in 2019)

- JIS Z 7252 – Classification of Chemicals Based on GHS
- JIS Z 7253 – Hazard Communication of Chemicals Based on GHS - Labelling and Safety Data Sheet



## Advisory classifications from Japanese Ministries

- Chemical Hazard and Risk Information		
- Japan		
- <a href="#">GHS Classification Results by the Japanese Government</a>		
- GHS Classification Results by the Japanese Government <a href="#">Data Description</a> <a href="#">GHS Information</a>		
Year of implementation /renewal	2006	-
Chemical Substance Name	Formaldehyde	
Classification Result	<a href="#">HTML</a> <a href="#">Excel</a>	
Year of implementation /renewal	2017	latest
Chemical Substance Name	Formaldehyde	
Classification Result	<a href="#">HTML</a> <a href="#">Excel</a>	

## ASEAN-Japan Chemical Safety Database (AJCSD).

- [http://www.ajcsd.org/chrip\\_search/html/AjcsdTop.html](http://www.ajcsd.org/chrip_search/html/AjcsdTop.html)
- The Myanmar, Malaysia, Japan classifications are included.

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## Classification

- Building block
- Official list of hazardous chemicals (mandatory & advisory)

## SDS authoring

- Language
- Information required to be indicated on SDS

## Label designing

- Language
- Precautionary statements selections
- Supplemental information on labels
- Dimensions

## Different building block (example)

Hazard class	EU CLP	China GB	Korea MoEL	Japan JIS
Flammable liquids	Category 1-3	Category 1-4	Category 1-3	Category 1-4
Acute toxicity	Category 1-4	Category 1-5	Category 1-4	Category 1-4
Skin irritation / corrosion	Category 1-2	Category 1-3	Category 1-2	Category 1-2
Aspiration toxicity	Category 1	Category 1-2	Category 1-2	Category 1
Hazardous to aquatic environment (acute)	Category 1	Category 1-3	Category 1	Category 1-3



## Sulfuric Acid (CAS#7664-93-9)

EU CLP – Annex VI

H314

Guidance of inventory of hazard chemicals in China (2015 version)

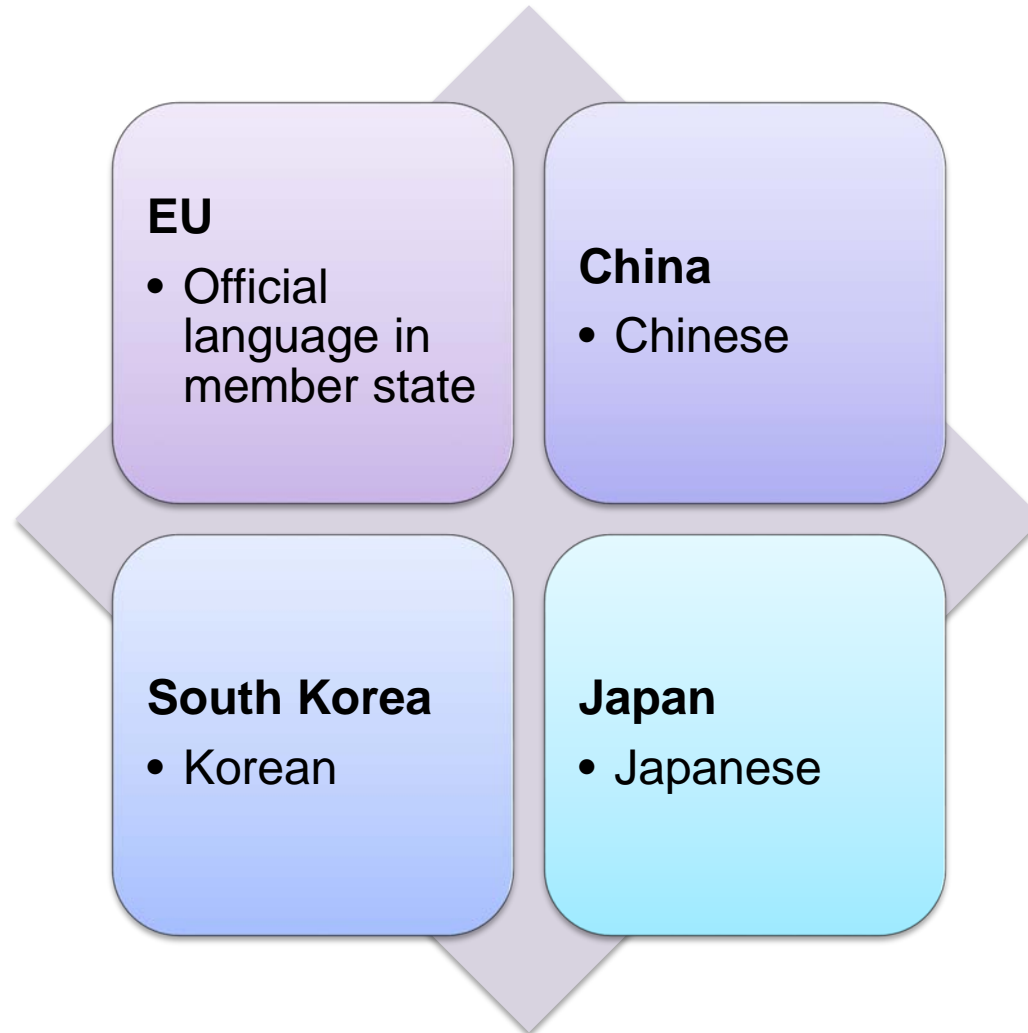
H314, H318

Korea toxic substance

H290, H314, H330, H412

Japan (Inter-ministerial Committee on GHS, 2006, updated in 2018)

H303, H330, H314, H318, H370 (Respiratory system), H372 (Respiratory system), H402, H410





## Languages required for labels and safety data sheets

Country	Language 1	Language 2	Language 3
Austria	German		
Belgium <sup>1)</sup>	French	Dutch	German
Bulgaria	Bulgarian		
Croatia	Croatian		
Cyprus	Greek		
Czech Republic	Czech		
Denmark	Danish		
Estonia	Estonian		
Finland	Finnish	Swedish	

## Registration number

- EU REACH, South Korea K-REACH

## Emergency contact number

- EU poison center, China (domestic 24h)

## Local supplier information

- South Korea

## Regulatory information

- Japan Fire Law, Poisonous and Deleterious, Substances Control Law

## EU

- 6 precautionary statements can be selected according to the labelling guidance

## Korea

- According to MOEL 2016-19 article 6-2<sup>⑤</sup>, only 6 precautionary statements covering 4 aspects are required. (different from the CLP labelling)

## China & Japan

- All applicable precautionary statements

## EU

Supplemental hazard (EUHxxx), child-resistant fastenings, tactile warning of danger

## Japan

Poisonous and Deleterious Substances Control Law requires the "poisonous or deleterious substances" name and its percentages

医薬用外毒物

医薬用外劇物

# The minimum size requirements of labels



EU	Capacity of the package	Dimensions of the label(mm)	Dimensions of the pictogram (mm)
	≤ 3 L	If possible, at least 52 x 74	≥ 10 x 10 If possible, ≥ 16 x 16
	> 3 L but ≤ 50 L	≥ 74 x 105	≥ 23 x 23
	> 50 L but ≤ 500 L	≥ 105 x 148	≥ 32 x 32
	> 500 L	≥ 148 x 210	≥ 46 x 46

## China

Container Capacity	Minimum Label Dimensions (mm)
≤ 0.1L	Simplified labels
> 0.1 - ≤ 3L	> 50 × 75
> 3 - ≤ 50L	> 75 × 100
> 50 - ≤ 500L	> 100 × 150
> 500 - ≤ 1000L	> 150 × 200
> 1000L	> 200 × 300

## Korea

Capacity of the package	Dimensions of the label(cm <sup>2</sup> )	Dimensions of the pictogram (cm <sup>2</sup> )
< 5 L	≥ 5% or more of surface	≥ 1/40 ≥ 0.5 cm <sup>2</sup>
≥ 5 L but < 50 L	≥ 90	
≥ 50 L but < 200 L	≥ 180	
≥ 200 L but < 500 L	≥ 300	
≥ 500L	≥ 450	

## Japan

Not specified in JIS 7253



## China

- generic name and concentration range

## South Korea

- substance name and concentration range(5%)
- Separate sheet including complete composition information can be submitted to MoEL

## Japan

- attached as a separate sheet(PRTR); product name & concentration range(ISHL); concentration range(PDSCL)

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## Inventory status checking

- Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)
- Catalog of Hazardous Chemicals(2015)
- <http://apciss.cirs-group.com/?l=en-us>

## Classification

- GB 30000.2-28-2013

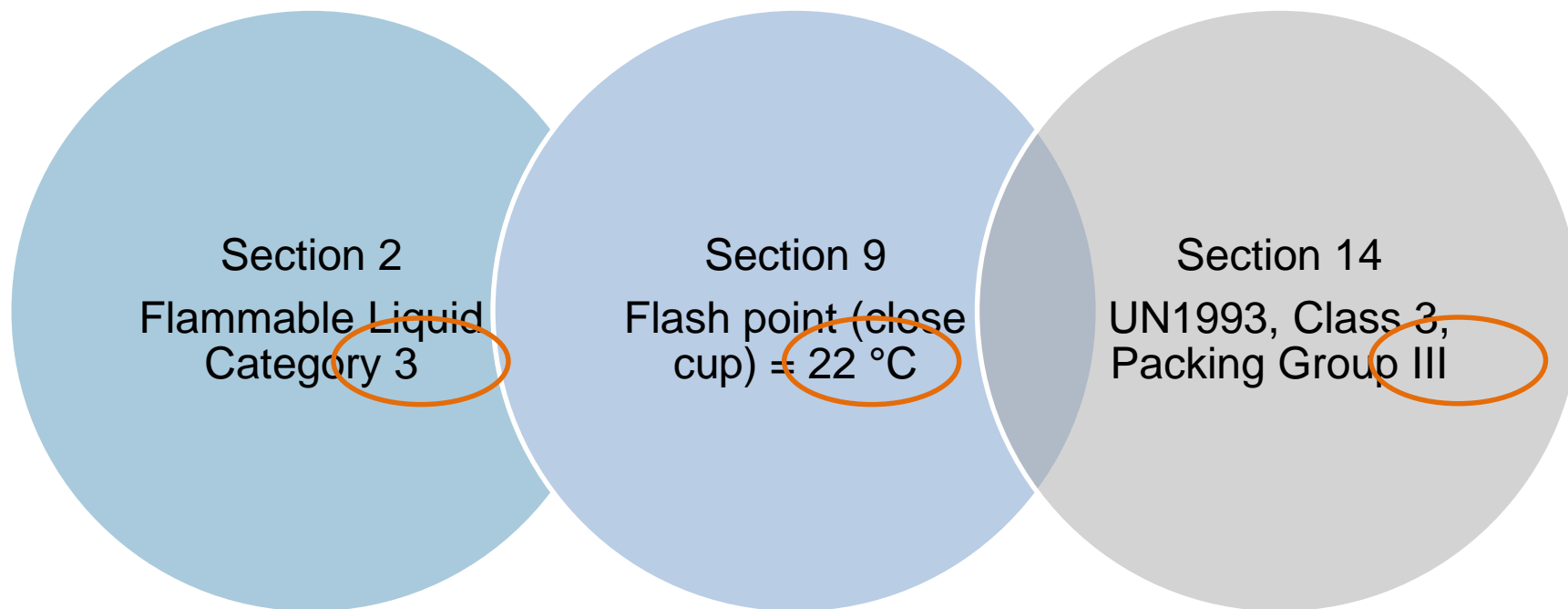
## Chinese SDS

- GB/T 16483-2008 and GB/T 17519-2013

## Chinese GHS label

- GB 15258-2009

- Lacking of product name (CN&EN)
- Missing sections (9 or 12 sections)
- Incorrect languages & poor translations
- Data does not support the relevant classifications
- Missing/incorrect transportation information
- The label does not match the SDS



If the flash point (close cup) is above 23 °C and below 60 °C, it is classified as Flammable liquid category 3. The Packing Group is “III”.

SAWS: State Administration of Work Safety (China)

NRCC: National registration center of chemicals (China)

MEP: Ministry of Environmental Protection (China)

AQSIQ: Administration of Quality Supervision, inspection and Quarantine (China)

SKLSCC: State Key Laboratory of Safety and Control for Chemicals (China)

MoEL: Ministry of Employment and Labor (Korea)

Korea OSHA: Korea Occupational Safety and Health Act (Korea)

PRTR: Law concerning Pollutant Release and Transfer Register (Japan)

ISHL: Industrial Safety and Hygiene Law (Japan)

PDSCCL: Poisonous and Deleterious Substance Control Law (Japan)

ASEAN: Association of Southeast Asian Nations (Japan)

# Thank you



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