



# WERCS Studio 2021 Virtual User Group

November 2021 | Day 1

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Whether seriously or in jest, **do not discuss** or exchange information regarding:

## **Prices**, including:

- Individual company prices, price changes, price differentials, pricing patterns or policies, discounts, allowances, credit terms, warranties, rebates or special financing, indemnification agreements, or other terms and conditions of sale affecting price.
- Industry pricing policies, price levels, price changes, pricing procedures, profit margins or other data that bear on price.
- Individual company data on costs, production, capacity, inventory, sales, profit margins or other data that bear on price.

## **Production**, including:

- Individual company plans concerning the design, production, distribution or marketing of particular products or product features, including possible or proposed customers or territories.
- Agreements with competitors to control or limit production, restrict or allocate exports or imports, control or limit product quality or research or allocate sales according to customers, territories or products.

## **Marketing procedures**, including:

- Matters relating to dealing or not dealing with actual or potential individual suppliers, customers, or competitors that might exclude them from the market;
- Territorial restrictions, allocations of customers, restrictions on types of products or any other kind of market division

This list is not exhaustive and understanding and acting in compliance with U.S. and foreign antitrust and competition laws sometimes can be difficult. If you have a question about the propriety of UL activities or discussions in an UL meeting, you are encouraged immediately to contact your company's legal counsel.

# Confidentiality statement

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# How to ask a question in Hopin



2021 WERCS Studio Virtual User Group-NA

Navigation bar: |→, 🔊, 📶, 🔔, 👤

Event Stage My Agenda

Q&A

Be the first to ask a question

Ask a question

# How to ask a question in Hopin



2021 WERCS Studio Virtual User Group-NA

→

KE

Event

Stage

My Agenda

Q&A

Be the first to ask a question

How do I ask a question?

☐ Ask anonymously

24/200

Ask

# Agenda – Day 1

12:30 - 12:45	<b>Welcome and Opening Remarks</b>
12:45 - 1:30	<b>Global HazCom Regulatory Updates</b>
1:30 - 2:30	<b>Regulatory New and Updated Content</b>
2:30 – 2:45	<b>Break</b>
2:45 – 3:25	<b>Ask the Experts – HazCom and Content/Module Workshop</b>
3:25 – 3:30	<b>Recap and Enhancement Submission</b>

\*All times in EST



# Opening Remarks

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**Empowering Trust<sup>®</sup>**



# Your end-to-end chemical data management partner



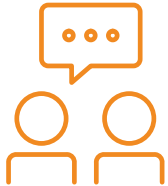
# Challenges will continue



Regulations



Data  
collection



Consumer  
preferences

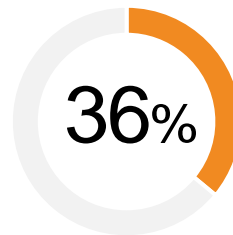


Risk  
management

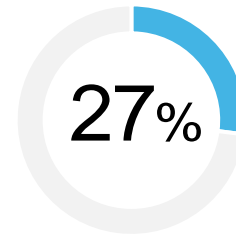


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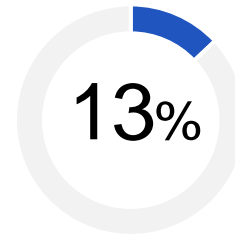
# The need for comprehensive chemical data management



Current Regulations



Competitiveness &  
internal objectives



Brand reputation

# We solve customer problems



**Software**



**Regulatory  
data and rules**



**Expertise**

# Your solution for chemical safety, compliance and sustainability

- Comprehensive set of chemical regulation and rules integrated into the software
- Chemical data collection and management
- Complete, flexible and scalable platform



# Global Hazard Communication: Regulatory Updates

Darlene Susa-Anderson

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# Focus of presentation

## New: GHS Implementation

- Israel, South Africa

## In Process: Revision to Existing GHS Implementation

- Australia, Chile, Colombia, Japan, European Union, New Zealand

## Proposed: Revision to Existing GHS Implementation

- Brazil, Canada, United States



# The Americas



# Canada

On Dec. 19, 2020, Health Canada issued a proposed rulemaking to update the Hazardous Products Regulation (HPR) to revision 7 of GHS.

This move furthers the goals of the joint Regulatory Cooperation Council (RCC) and is part of the Health Canada 2019-2021 Forward Regulatory Plan.

The deadline for comments was originally Feb. 27, 2021 but was extended to May 19, 2021.

When finalized, a two-year transition period is expected.

# Key points

Amendment of Flammable gases and (Flammable) aerosols class/categories.

Amendment and/or addition of definitions for numerous Health Hazard classifications in order to align with revision 7 of GHS.

Amendment of classification criteria for the Skin corrosion/irritation hazard class.

Amendment of provisions dealing with “substances and mixtures, that when in contact with water, emit a toxic gaseous substance (Water-Activated Toxicants)”.

Important new provision: Products classified under the Aerosols hazard class need not be classified in any category of the Gases Under Pressure hazard class.

# United States

On Feb. 16, 2021, OSHA issued a proposed rulemaking to update the Hazard Communication Standard to revision 7 of GHS.

The deadline for comments was originally Apr. 19, 2021, but also was extended to May 19, 2021.

81 comments were received and are undergoing evaluation.

When finalized, a one-year transition period for substances and a two-year period for mixtures is anticipated.

# Key points

New definitions: Combustible dust; Exposure or exposed; Gas, liquid and solid; Immediate outer package; Released for shipment

Amendment of Flammable gases and (Flammable) aerosols class/categories.

New requirements for small container labeling.

Addition of concentration ranges for trade secrets consistent with those used in Canada.

# Comparison between US and Canadian proposals

## Comparison between Health Canada's Proposed Regulations Amending the *Hazardous Products Regulations* (GHS, Seventh Revised Edition) and the United States Occupational Safety and Health Administration (OSHA's) Proposed Rulemaking to Amend the Hazard Communication Standard

### Key Variances between the Canadian and U.S. Regulatory Proposals

2021-05-13

#### Preamble:

Health Canada's proposed Regulations Amending the *Hazardous Products Regulations* (GHS, Seventh Revised Edition) and proposed Order Amending Schedule 2 to the *Hazardous Products Act* were pre-published in the *Canada Gazette*, Part I on December 19, 2020. The *Canada Gazette*, Part I publications may be found at the following links:

<https://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/html/reg4-eng.html>

<https://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/html/reg5-eng.html>

Pdf: <http://www.gazette.gc.ca/rp-pr/p1/2020/2020-12-19/pdf/g1-15451.pdf#page=476>

Source: Health Canada

### Key Variances between Health Canada and U.S. OSHA's Regulatory Proposals

Note: Wherever there is an already existing requirement or a proposed new requirement that would apply in one jurisdiction but not the other, this information is highlighted in yellow, so that the reader may easily note the differences between the two jurisdictions.

Key Variance	Existing requirement in the Canadian HPR or proposed requirement in the Regulations Amending the HPR (GHS, Seventh Revised Edition)	Proposed requirement in the U.S. proposed rulemaking to amend the HCS	Considerations
<b>1. Classification of hazardous products/chemicals</b>	<p>The classification of a product, mixture, material or substance (PMMS) is based on the hazards that it presents, in the form in which it is sold or imported.</p> <p>When classifying a PMMS, a supplier is not required to take into consideration hazards associated with a change in physical form that may occur under normal conditions of use, or hazards that would result from a reaction with other chemicals under normal conditions of use, with the exception of the following two hazards:</p> <ul style="list-style-type: none"> <li>Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases (Subpart 12 of Part 7 of the HPR); and</li> <li>Water-Activated Toxicants (this hazard is covered under the Acute Toxicity hazard class (Subpart 1 of Part 8 of the HPR, in particular, subsection 8.1.1(2) which is proposed to be amended; please</li> </ul>	<p>Under section (d), Hazard classification, paragraph (d)(1) is proposed to be amended as follows (new text is underlined):</p> <p>(d)(1) Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to classify the chemicals in accordance with this section. For each chemical, the chemical manufacturer or importer shall determine the hazard classes, and where appropriate, the category of each class that apply to the chemical being classified <u>under normal conditions of use and foreseeable emergencies. The hazard classification shall include any hazards associated with a change in the chemical's physical form or resulting from a reaction with other chemicals under normal conditions of use.</u> Employers are not required to classify chemicals unless they choose not to rely on the classification performed by the chemical manufacturer or importer for the chemical to satisfy this <u>paragraph (d)(1).</u></p>	<p>Under the HPR, the classification of a PMMS is based on the hazards that it presents, in the form in which it is sold or imported.</p> <p>However, item 2(c) of Schedule 1 of the HPR requires the disclosure, under section 2 of the SDS, of "other hazards known to the supplier with respect to the hazardous product". For example, if a hazardous product, under normal conditions of use, will undergo a chemical reaction that will change its chemical structure, thereby generating new or more severe hazards, this information would be expected to be disclosed under item 2(c) of the SDS.</p>

# Brazil

In October 2020, the Brazilian Chemistry Committee (CB-010) of the Brazilian Association of Technical Standards (ABNT) opened a national consultation on the proposed Technical Standard NBR 14725: Chemicals - Information about Safety, Health and Environment – General Aspects of the Globally Harmonized System (GHS), Classification, SDS, and Labeling of Chemicals.

Purpose: Implement revision 7 of GHS and to unify into a single document the current Standard that is divided into 4 parts: Terminology; Classification; Labeling and Safety Data Sheets.

The draft Technical Standard NBR 14725 is composed of 7 sections, 17 Annexes and is 520 pages in length. Once published, there will be a two-year transition period for companies to meet the label and SDS requirements. However, companies can start using the updated version as soon as it is issued.

The public consultation ended on Nov. 19, 2020. Comments and suggestions have been reviewed by the CB-010. The analysis is now completed, and a revised draft is expected to be published and released for public consultation.

# Chile

On Feb. 9, 2021, the Ministry of Health and the Ministry of the Environment published the **Regulation on the Classification, Labelling, and Notification of Chemical Substances and Mixtures** through Decree 57 of Nov. 26, 2019.

This Decree implements revision 7 of GHS and establishes requirements for classification, labelling and notification (inventory) as well as for SDSs.

## Implementation deadlines

- Industrial use substances: **Feb. 9, 2022**
- Non-industrial use substances: **Feb. 9, 2023**
- Industrial use mixtures: **Feb. 9, 2025**
- Non-industrial use mixtures: **Feb. 9, 2027**

DIARIO OFICIAL			I	
DE LA REPUBLICA DE CHILE			SECCIÓN	
Ministerio del Interior y Seguridad Pública				
LEYES, REGLAMENTOS, DECRETOS Y RESOLUCIONES DE ORDEN GENERAL				
Núm. 42.876		Martes 9 de Febrero de 2021		Página 1 de 103
Normas Generales				
CVE 1892688				
MINISTERIO DE SALUD				
Subsecretaría de Salud Pública				
APRUEBA REGLAMENTO DE CLASIFICACIÓN, ETIQUETADO Y NOTIFICACIÓN DE SUSTANCIAS QUÍMICAS Y MEZCLAS PELIGROSAS				
Núm. 57.- Santiago, 26 de noviembre de 2019.				
Visto:				
Lo dispuesto en el artículo 32 N° 6 y 35 de la Constitución Política de la República; en los artículos 1°, 2°, 3°, 90° y 92°, del Código Sanitario, aprobado por decreto con fuerza de ley N° 725, de 1967, del Ministerio de Salud; en los artículos 4°, 6° y 7° del decreto con fuerza de ley N° 1, de 2005, del Ministerio de Salud, que fija el texto refundido, coordinado y sistematizado del decreto ley N° 2.763 de 1979 y de las leyes N° 18.933 y 18.469; en la ley N° 19.300, sobre Bases Generales del Medio Ambiente; el decreto supremo N° 1, de 2013, del Ministerio del Medio Ambiente, que aprueba Reglamento del Registro de Emisiones y Transferencias de Contaminantes, RETC; en la Resolución N° 7 de 2019 de la Contraloría General de la República; y				

# Excluded building blocks

Intentionally Excluded	Flammable liquids category 4; Skin corrosion/irritation category 3; Serious eye damage/eye irritation category 2A and 2B; Aspiration toxicity category 2; Hazardous to the aquatic environment acute categories 2 and 3
Excluded due to Revision	Pyrophoric gas Desensitized explosives Chemicals under pressure



# Classification (Title II)

To facilitate the classification of a substance or mixture classification, an official GHS list of classified substances will be available (referred as the List), which will be approved by resolution of the Ministry of Health, and it will contain hazard classes and categories.

On Aug. 23, 2021, via Resolution 777, Chile published its mandatory list of ~4500 GHS classifications.



SUBSECRETARIA DE SALUD PÚBLICA  
DIVISIÓN DE POLÍTICAS PÚBLICAS SALUDABLES Y PROMOCIÓN  
DEPARTAMENTO DE SALUD AMBIENTAL

LISTADO OFICIAL DE CLASIFICACIÓN DE SUSTANCIAS

Nombre químico	N.º CAS	Clasificación	Clasificación	Límites de concentración específicos y factores M	Notas
		Códigos de clase y categoría de peligro	Códigos de indicaciones de peligro		
((4-(5-Oxo-3-propilisoaxazolidin-4-ildienmetil)fenil)propoxycarbo-nilmetilenoamino)acetato de pro-pilo	198705-81-6	Aquatic Chronic 4	H413		
((N-(3-Trimetilamoniopropil)sulfamoil)metilsulfonatoftalocianina-to)cobre (II) de sodio	124719-24-0	Eye Dam. 1	H318		
(-)-(1R, 2S)-1,2-Epoxiopropilfosfonato de (R)-α-feniletilammonio monohidratado	25383-07-7	Repr. 2 Aquatic Chronic 2	H361F H411		

# Colombia

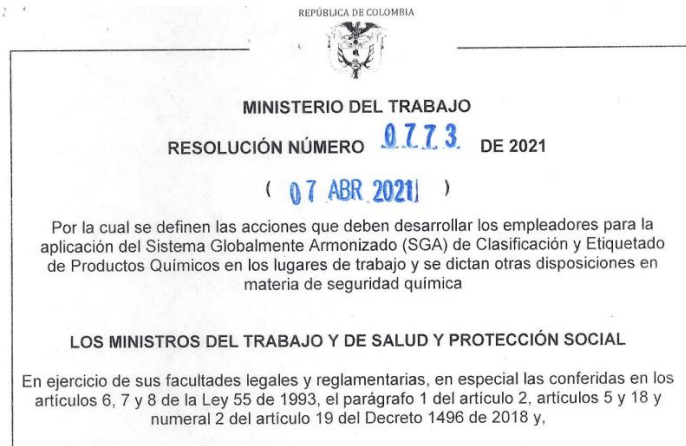
Resolution 773 was issued on Apr. 7, 2021, to implement Decree 1496 of 2018 which implements revision 6 of GHS.

Administering authorities: Ministry of Labour and Ministry of Health and Social Protection

Implementation deadlines:

- Substance and diluted solutions: **Apr. 7, 2023**
- Mixtures: **Apr. 7, 2024**

Source: Resolution 773



# Key points

Mandatory review of SDSs and labels every five years.

Carcinogenicity criteria aligns with the International Agency for Research on Cancer.

## Small containers

- Containers smaller than 30 milliliters will need to display at least the name of the product and hazard pictograms. Alternative labeling methods for these smaller products may be used when handled or stored at the workplace.
- Containers smaller than 250 milliliters should be labeled according to the recommendations provided by revision 6 of GHS for small containers.

# Asia Pacific

# Australia

In January 2020, Safe Work Australia (SWA) agreed to move to revision 7 of GHS.

It was adopted under the Model Work Health and Safety (WHS) laws for workplace hazardous chemicals and was effective Jan. 1, 2021.

Deadline for compliance: **Dec. 31, 2022**



# Key points

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 originate in Australia.

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

Size of label is 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

**HAZCHEM  
Emergency  
Action Code**  
FOR FIRE OR SPILLAGE

Substance  
UN No.  
HAZCHEM  
Class  
Label  
Contacts

1 COARSE SPRAY

2 FINE SPRAY

3 FOAM

4 DRY AGENT

• ALCOHOL RESISTANT FOAM

P	V	LTS	DILUTE
R			
S	V	BA & FIRE KIT	
T			
W	V	LTS	CONTAIN
X			
Y	V	BA & FIRE KIT	
Z			

E PUBLIC SAFETY HAZARD

**Additional Information**  
**DRY AGENT**  
Water must not be allowed to come into contact with the substance at risk.  
**ALCOHOL RESISTANT FOAM #2 or #3**  
Alcohol resistant foam is the preferred medium.  
If not available:  
- If #2 – use Fine Spray or Water Fog  
- If #3 – use Normal Protein Foam  
**V**  
Substance can be violently or even explosively reactive, including combustion.  
**LTS**  
Liquid-Tight Chemical Protective Suit with BA.  
Full **FIRE KIT** should also be worn for thermal protection if the substance is:  
- Liquid Oxygen  
- Liquefied Toxic Gas (Division 2.3)  
- Toxic Gas with sub-risk 2.1 or 5.1  
- Class or sub-risk 3  
- Division 5.1 FGI with sub-risk 6.1 or 8 carried at temperature > 100 °C  
**DILUTE**  
May be washed to drain with large quantities of water.  
**CONTAIN**  
Prevent, by any means available, spillage from entering drains or water course.  
**E**  
People should be warned to stay indoors with all doors and windows closed, –but evacuation may need to be considered. Consult Control, Police and product expert.

# 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 over 500 existing substances were revised in the spring of 2021 plus new classifications were added for over 700 substances bringing the total of classified substances to over 6300.

HCIS = Hazardous Chemicals Information System

# Japan

In late May 2019, Japan updated its JIS Z 7252 and 7253 standards from revision 4 to revision 6 of GHS.

JIS Z 7252: Classification of Chemicals Based on Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

JIS Z 7253: Hazard Communication of Chemicals Based on GHS - Labeling and Safety Data

Chemical suppliers have until **May 24, 2022** to adopt the requirements and update their SDSs and labels if necessary.

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# Planned expansion

The Minister of Health, Labour, and Welfare (MHLW) is making progress with its plan to expand the number of hazardous chemical substances subject to mandatory Safety Data Sheets (SDSs) and labels under its Industrial Health and Safety Law (ISHL).

On Apr. 27, 2021, an interim plan and timeline of implementation were presented at the 13th meeting of the Study Group under the MHLW Concerning the Management of Chemical Substances in the Workplace.

The plan aims to add several hundred chemical substances to Table 9 of the Cabinet Order of the ISHL per year for the next three years. Table 9 of the Cabinet Order currently lists 633 chemical substances. The ISHL requires chemical suppliers to prepare an SDS and label for substances listed in Table 9.

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

The additional substances to be added to Table 9 are to be selected from the 3,018 substances the Japanese government has classified and published according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

# South Korea

In December 2019, South Korea's Ministry of Employment and Labor (MOEL) finalized amendments to the subordinate regulations of the Industrial Safety and Health Act (ISHA). Most of the amendments became effective on Jan. 16, 2020; however, the amendments applicable to hazard communication, including (M)SDS's, became effective on Jan. 16, 2021.

- Mandatory submission of MSDSs to MOEL by manufacturers or importers of hazardous products (exception for research purposes if less than 100 kg/year and packaged in a container  $\leq 10$  kg) through a K-OSHA portal (Article 110-1 of the revised Act);
- Mandated approval from MOEL of any CBI components before manufacture or import; if approved an alternative chemical name must be used; CBI is effective for 5 years and may be extended an additional 5 years upon request which must be submitted 30 days prior to the expiration date (Article 112 of the revised Act);
- Non-South Korean manufacturers can appoint an Only Representative (OR) to handle the above referenced submissions; an OR is obligated to report their appointment or resignation to MOEL (Article 113 of the revised Act).

# Grace period for submission

MSDSs, already authored/updated and provided to recipients/transferees in accordance with ISHA before the amendments take effect, are granted up to 5 years of grace period of (M)SDS submission obligation based on the annual quantity.

This exception applies to manufactures and importers only. (M)SDS complying with the amendments must be submitted before the deadline listed below:

- The annual quantity of manufacture/import for harmful agents is >1,000 tonnes: Jan. 16, 2022
- The annual quantity of manufacture/import for harmful agents is 100 to 1,000 tonnes: Jan. 16, 2023
- The annual quantity of manufacture/import for harmful agents is 10 to 100 tonnes: Jan. 16, 2024
- The annual quantity of manufacture/import for harmful agents is 1 to 10 tonnes: Jan. 16, 2025
- The annual quantity of manufacture/import for harmful agents is <1 tonne: Jan. 16, 2026

# South Korea

The Standard on Classification and Labelling of Chemical Substances and Preparation of Material Safety Data Sheets was initially published in 1996 but amended 11 times with the 2006 amendment implementing GHS with the most recent amendment on Nov. 12, 2020 (MOEL Public Notice No. 2020-130) which implemented revision 6 of GHS.

Its effective date was Jan. 16, 2021.

# Key points

*Article 10* specifies a 16-section format (Annex 4)

- Section 1 requires the use of Annex 5 to determine ‘recommended use’
- Section 3 specifies provisions for ingredient trade secrecy; MOEL approval number needed (see Annex 7 for details)
- Section 15 specifies that regulations under the following be considered:
  - Industrial Safety and Health Law
  - Toxic Chemicals Control Law
  - Dangerous Substance Safety Management Law
  - Waste Management Law
  - Other relevant national and foreign laws

<ANNEX 5> |

**Usage Classification System (Related to Article11)**

Serial No.	Usage	Description
1	Feed materials and Intermediates	Feed materials used for syntheses of new substances, formulation of mixtures, etc. and intermediates generated during the course
2	Adhesives and sealants	Substances intended to fuse contact faces of two articles and join two entities
3	Adsorbents	Substances that adsorb gas or liquid
4	Air care products	Substances used to generate odor inside a room and to remove odor of clothing, etc.

# New Zealand

New Zealand is moving to revision 7 of GHS via the Hazardous Substances (Hazard Classification) Notice 2020 (approved on Oct. 15, 2020).



# Notices

Hazardous Substances (Hazard Classification) Notice 2020

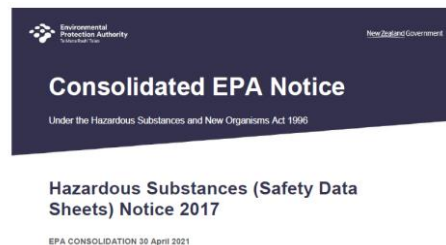
Hazardous Substances (Safety Data Sheets) Notice 2017

Hazardous Substances (Labelling) Notice 2017

Hazardous Substances (Disposal) Notice 2017

Hazardous Substances (Packaging) Notice 2017

Even though the date in the title of all but one of the Notices did not change, all these Notices now are considered 'consolidated' and reflect conversion to revision 7 of GHS.



# Hazardous Substances (Hazard Classification) Notice 2020

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

Of note is the unique NZ numbering classification system 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.



**Hazardous Substances  
(Hazard Classification) Notice 2020**

OCTOBER 2020



# 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

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

Respiratory and skin sensitizers category 1 is not subdivided into A and B.

**Added building blocks** (applies only to agrichemicals or an active ingredient used in the manufacture of an agrichemical that is a pesticide or veterinary medicine)

- Hazardous to soil organisms
- Hazardous to terrestrial vertebrates
- Hazardous to terrestrial invertebrates

# 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 labelling, SDS and packaging provisions by **Apr. 30, 2025**

For any hazardous substances approved after Apr. 30, 2021:

- All updated rules must be followed and the GHS revision 7 classification for labels and safety data sheets must be used after the approval.

# Europe

# 12<sup>th</sup> ATP to CLP

On Mar. 28, 2019, the European Commission released an update to the Classification, Labelling and Packaging (CLP) regulations ((EU) 2019/521) to reflect revisions 6 and 7 of GHS. Enforcement of the revised provisions started Oct. 17, 2020.

## Key changes

- Annex I: Introduced a new hazard class for desensitised explosives (Category 1-4) and a new hazard category, pyrophoric gases (within the hazard class flammable gases and updating the category name); cut-off value for STOT-RE 3 and aspiration toxicity added to table 1.1 (generic cut-offs); revised the criteria for substances and mixtures which in contact with water emit flammable gases; and amended the details of the definitions and classification criteria for several hazard classes.
- Annex II: Deleted phrase EUH001; renumbered sections.
- Annex III: Added hazard statements H206, H207, H208 and H232.
- Annex IV: Corrected and revised P phrases.
- Annex IV: Added a new hazard category, i.e., desensitised explosives.
- Annex VI: Added a new hazard category for flammable gases and a new hazard class, desensitised explosives in table 1.1.

# 14<sup>th</sup> ATP to CLP

On Oct. 19, 2019, the European Commission released an update to the Classification, Labelling and Packaging (CLP) regulations ((EU) 2020/217).

Article 2 applied Dec. 1, 2019 (single entry correction to Annex VI for high temperature coal tar pitch) with the balance of the updates enforced Sep. 9, 2021.

## Key changes

- Annex II:

**'2.12. Mixtures containing titanium dioxide**

The label on the packaging of liquid mixtures containing 1 % or more of titanium dioxide particles with aerodynamic diameter equal to or below 10 µm shall bear the following statement:

EUH211: 'Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.'

The label on the packaging of solid mixtures containing 1 % or more of titanium dioxide shall bear the following statement:

EUH212: 'Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.'

In addition, the label on the packaging of liquid and solid mixtures not intended for the general public and not classified as hazardous which are labelled with EUH211 or EUH212, shall bear statement EUH210.'

- Annex VI: 2 deletions, 11 revisions including 8 new ATEs, 17 additions including 6 new ATEs

# 15<sup>th</sup> ATP to CLP

On Aug. 11, 2020, the European Commission released an update to the Classification, Labelling and Packaging (CLP) regulations ((EU) 2020/1182) to implement a series of new Annex VI harmonised substance classifications including a new harmonised Acute Toxicity Estimate (ATE) for Nitric acid. Enforcement begins **Mar. 1, 2022**.

The 15<sup>th</sup> ATP consists of 37 new entries including 21 ATEs, 21 updates including 17 ATEs and 2 deleted entries.

# 16<sup>th</sup> ATP to CLP

On Apr. 20, 2021, the European Commission released an update to the Classification, Labelling and Packaging (CLP) regulations ((EU) 2021/643).

**These are the first changes that will not be automatically adopted by the U.K.**

Compared to more recent updates, these are small phrasing changes to Notes J-R and 8-9 that provide considerations for specific entries to the Annex VI list. In general, these notes mostly affect UVCB (unknown or variable composition, complex reaction products or of biological materials) substances, such as petroleum oils, and cover the right to amend a harmonized classification if it can be proven that specific impurities are present at low enough concentrations.

The changes to the text as stated are relatively minor and have been designed to remove the inaccuracies and uncertainty about the correct interpretation of legal obligations that were present in the previous wording. In particular, the new wording enhances the need for the person undertaking the classification to undergo the full classification process for the substance and not just remove the additional hazards and assume the product is not required to be labeled.

Due to the minimal size of the impact, the regulation entered into force 20 days after its publication on May 10, 2021.

# 17<sup>th</sup> ATP to CLP

On May 28, 2021, the European Commission released an update to the Classification, Labelling and Packaging (CLP) regulations ((EU) 2021/849).

This latest update includes 22 new entries, 39 updated entries and one classification deletion. Within these are the common substances Citric acid, Boric acid and d-Limonene, and particular attention has been paid to the inclusion of specific acute toxicity estimate values and multiplying factors.

Due to the need to allow suppliers time to update their products, and to sell any existing stocks that have already been labeled, the regulation will apply starting **Dec. 17, 2022**.



# Draft 18<sup>th</sup> ATP to CLP

A draft of the 18<sup>th</sup> ATP was released in August 2021 with:

- 39 new entries proposed including 7 new ATEs
- 17 revised entries proposed including 12 new ATEs

# Planned Enforcement Forum

During its 38th plenary meeting, held on June 15-16, 2021, the Enforcement Forum determined that the SDS content and quality of information will be evaluated as part of the EU-wide enforcement project (REF-11) with inspections in 2023 with the subsequent report expected in 2024.

The content and format of the SDS will be checked in accordance with the revised requirements of Annex II of the REACH regulation.

# Relevant EU consultations

In May 2021, the European Commission (EC) issued drafts for consultation on roadmaps for the revision of REACH and CLP. Comments were due Jun. 1, 2021.

In July 2021, the EC launched a consultation on the simplification and digitilisation of labels for chemical products for labels required under CLP, the Detergents Regulation and the Fertilising Products Regulation. Comments were due Sep. 20, 2021.

In August 2021, the EC launched a public stakeholder consultation on a targeted revision of CLP. Comments due Nov. 15, 2021.

New hazard classes envisioned

- Endocrine disruptors (ED)
- Persistent, Mobile and Toxic (PMT)
- very Persistent, very Mobile (vPvM)
- Persistent, Bioaccumulative and Toxic (PBT)
- very Persistent, very Bioaccumulative (vPvB)

# Eurasia

Revisions expected for the following standards:

- GOST 30333 of 2007 – Chemical Safety Passport
- GOST 32419 of 2013 – Classification of Chemical Products
- GOST 31340 of 2013 – Labelling

Drafts were released in the spring of 2021 and reviewed in the summer of 2021 but there is no timeline for finalization of the revised standards.

# Middle East/Africa

# Egypt

In March 2021, a proposed Ministerial Decree No. 610 of 2020 mandating compliance with Egyptian Standard (ES) 8398 “Safety data sheet for chemical products – Content and order of sections)” was issued which is essentially identical to ISO 11014 of 2009 (16 section format).

Comment period ended May 29, 2021.

Proposed transition period six months after finalization

# Israel

In April 2019, revised standards were made available

- SI 2302 Part 1 2019 – Dangerous Substances and Mixtures: Classification, Labelling, Marking and Packaging
- SI 2302 Part 2 2019 – Transportation: Classification, Labelling, Marking and Packaging

The new requirement took effect Aug. 9, 2019, with a three-year transition period ending **Aug. 9, 2022**.

- It is not clear as to which version of the GHS these standards are based on, since it is not stated, but since 'flammable aerosols' and not 'aerosols' are identified as an end point, this suggests that it is based on the **revision 3**.
- However, H229, H230 and H231 are also included and these hazard statements were first introduced in **revision 4**.
- Based on the first page and section 2 page 2 of the Standard, where it is stating the adopted regulations and standards including all its amendments and updates, it appears to be adopting **revision 6** of GHS.

# South Africa

On Mar. 29, 2021, the Ministry of Employment and Labour of South Africa, under the Occupational Health and Safety Act, 1993 published the long-awaited Regulation of Hazardous Chemical Agents (HCA) with an implementation deadline of **Sep. 29, 2022**.

Which version of GHS? Unclear

Excluded building blocks

- Explosives
- Pyrophoric gas
- Aerosol category 3
- Flammable liquid category 4
- Acute toxicity category 5
- Skin corrosion/irritation category 3
- Serious eye damage/eye irritation category 2b
- Hazardous to the aquatic environment (acute) categories 2 and 3
- Hazardous to the aquatic environment (chronic) categories 3 and 4



# Resources – Americas

Canada proposed “Regulations Amending the Hazardous Products Regulations (GHS, Seventh Revised Edition).” Canada Gazette, Part I, Dec. 29, 2020 edition (see pages 4236 to 4299):

<http://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/pdf/g1-15451.pdf>

Health Canada issued comparison of US and Canadian proposals:

[https://ghsnotebook.files.wordpress.com/2021/06/comparison-between-hc-and-us-oshas-reg-proposals\\_eng\\_2021-05-13\\_final.docx](https://ghsnotebook.files.wordpress.com/2021/06/comparison-between-hc-and-us-oshas-reg-proposals_eng_2021-05-13_final.docx)

United States Notice of Proposed Rulemaking (NPRM) to modify the Hazard Communication Standard (HCS) to conform to the United Nations’ Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Revision 7: <https://public-inspection.federalregister.gov/2020-28987.pdf>

Brazil ABNT portal: <https://www.abntonline.com.br/consultanacional/projetat.aspx> (Portuguese)

# Resources – Americas

Chile Regulation on the Classification, Labeling, and Notification of Hazardous Substances and Mixtures:

<https://www.diariooficial.interior.gob.cl/publicaciones/2021/02/09/42876/01/1892688.pdf>  
(Spanish)

Chile Resolution 777: <https://www.bcn.cl/leychile/navegar?idNorma=1164063> (Spanish)

Chile mandatory classification list: <https://dipol.minsal.cl/wp-content/uploads/2021/08/Lista-de-sustancias-clasificadas-Chile-05072021.pdf> (Spanish)

Colombia Resolution 773:

<https://www.mintrabajo.gov.co/documents/20147/61442826/0773.PDF/3047cc2b-eae1-e021-e9bf-d8c0eac23e05?t=1617984928238> (Spanish)

# Resources – Asia Pacific

Australia GHS 7 transition page: <https://www.safeworkaustralia.gov.au/ghs-7-transition>

Australia Model Code of Practice on the Preparation of Safety Data Sheets for Hazardous Chemicals (last amended July 2020): [https://www.safeworkaustralia.gov.au/sites/default/files/2020-09/model\\_code\\_of\\_practice\\_preparation\\_of\\_safety\\_data\\_sheets\\_for\\_hazardous\\_chemicals.pdf](https://www.safeworkaustralia.gov.au/sites/default/files/2020-09/model_code_of_practice_preparation_of_safety_data_sheets_for_hazardous_chemicals.pdf)

Australia Model Code of Practice on the Labelling of Workplace Substances (last amended July 2020): [https://www.safeworkaustralia.gov.au/sites/default/files/2020-09/model\\_code\\_of\\_practice\\_labelling\\_of\\_workplace\\_hazardous\\_chemicals.pdf](https://www.safeworkaustralia.gov.au/sites/default/files/2020-09/model_code_of_practice_labelling_of_workplace_hazardous_chemicals.pdf)

Australia Classifying Hazardous Chemicals - National Guide (last amended 2020): [https://www.safeworkaustralia.gov.au/sites/default/files/2020-07/classifying\\_hazardous\\_chemicals\\_national\\_guide.pdf](https://www.safeworkaustralia.gov.au/sites/default/files/2020-07/classifying_hazardous_chemicals_national_guide.pdf)

National Transport Commission, Australian Code for the Transport of Dangerous Goods by Road and Rail Edition 7.7 – <https://www.ntc.gov.au/sites/default/files/assets/files/ADGC-7.7.pdf>

# Resources – Asia Pacific

Japan Standards Association: <https://www.jsa.or.jp/en/> (Japanese)

Japan: <https://www.jaish.gr.jp/horei/hor1-1/hor1-1-7-1-11.html> (Japanese)

Japan: <https://www.jaish.gr.jp/horei/hor1-2/hor1-2-1-m-3.html> (Japanese)

South Korea: [산업안전보건법 \(전부개정 1. 15, 법률 제16272호, 시행일 2020. 1. 16\), Occupational Safety and Health Act \(OSHA\)](#) (Wholly amended on Jan, 15, 2019 as Act No. 16272, effective Jan. 16, 2020) (Korean)

# Resources – Asia Pacific

South Korea Enforcement Decree:

<http://law.go.kr/LSW/lsInfoP.do?lsiSeq=212399&ancYd=&ancNo=&efYd=20200116&nwJoYnInfo=Y&ancYnChk=0&efGubun=Y&vSct=%EC%82%B0%EC%97%85%EC%95%88%EC%A0%84%EB%B3%B4%EA%B1%B4%EB%B2%95#0000>

(Wholly amended on Dec. 24, 2019 as Presidential Decree No. 30256, effective Jan. 16, 2020) (Korean)

South Korea Enforcement Regulation:

<http://law.go.kr/LSW/lsInfoP.do?lsiSeq=212709&ancYd=&ancNo=&efYd=20200116&nwJoYnInfo=Y&ancYnChk=0&efGubun=Y&vSct=%EC%82%B0%EC%97%85%EC%95%88%EC%A0%84%EB%B3%B4%EA%B1%B4%EB%B2%95#0000>

(Wholly amended on Dec. 26, 2019 as MOEL Ministry Ordinance 272, effective Jan. 16, 2020) (Korean)

# Resources – Asia Pacific

KOSHA MSDS Brochure:

<https://ul.sharepoint.com/sites/collab/622/GoldenGCS/GCSRegionalPackets/Shared Documents/Forms/AllItems.aspx?id=%2Fsites%2Fcollab%2F622%2FGoldenGCS%2FGCSRegionalPackets%2FShared Documents%2FRegulatory Task Force%2FSupporting Documents%2FNEW MSDS EN 210401%2Epdf&parent=%2Fsites%2Fcollab%2F622%2FGoldenGCS%2FGCSRegionalPackets%2FShared Documents%2FRegulatory Task Force%2FSupporting Documents>

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/>

Singapore SS 586-1: 2021: <https://www.singaporestandardseshop.sg/Product/SSPdtDetail/1022cbe4-4404-4a8b-98b4-23e6f4127048>

# Resources – Europe

12<sup>th</sup> ATP to CLP: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L\\_.2019.086.01.0001.01.ENG&toc=OJ%3AL%3A2019%3A086%3ATOOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2019.086.01.0001.01.ENG&toc=OJ%3AL%3A2019%3A086%3ATOOC)

14<sup>th</sup> ATP to CLP: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1582045075820&uri=CELEX:32020R0217>

15<sup>th</sup> ATP to CLP: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R1182>

16<sup>th</sup> ATP to CLP: [https://eur-lex.europa.eu/eli/reg\\_del/2021/643/oj](https://eur-lex.europa.eu/eli/reg_del/2021/643/oj)

17<sup>th</sup> ATP to CLP: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0849&qid=1622212379974>

# Resources – Europe

EU report on the pilot project on cooperation with customs in enforcement of REACH restrictions and CLP labelling:

[https://echa.europa.eu/documents/10162/17086/customs2\\_project\\_report\\_en.pdf/5a2c3795-7ed9-5900-fe28-540228abc7c1](https://echa.europa.eu/documents/10162/17086/customs2_project_report_en.pdf/5a2c3795-7ed9-5900-fe28-540228abc7c1)

EU Sustainable Chemical Strategy: [https://ec.europa.eu/environment/strategy/chemicals-strategy\\_en](https://ec.europa.eu/environment/strategy/chemicals-strategy_en)

EU Consultations portal:

[https://ec.europa.eu/info/consultations\\_en?order\\_by\\_status=All&field\\_core\\_topics\\_target\\_id\\_entityreference\\_filter=All](https://ec.europa.eu/info/consultations_en?order_by_status=All&field_core_topics_target_id_entityreference_filter=All)



# Resources – Mid East/Africa

Egypt proposed Ministerial Decree No. 610 of 2020:

[https://tsapps.nist.gov/notifyus/docs/wto\\_country/EGY/full\\_text/pdf/EGY288%5b2%5d\(arabic\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/EGY/full_text/pdf/EGY288%5b2%5d(arabic).pdf)

GCC Draft: <https://www.gso.org.sa/en/>

Israel SI 2302 Standards: <https://ibr.sii.org.il/ibr/#/standards/1> (Hebrew only)

South Africa - Regulation of Hazardous Chemicals Agents (HCA):

[https://www.gov.za/sites/default/files/gcis\\_document/202103/44348rg11263gon280.pdf](https://www.gov.za/sites/default/files/gcis_document/202103/44348rg11263gon280.pdf)

# Stay up to date!

<https://www.ul.com/news/news-stories>

# Questions

Darlene Susa-Anderson  
UL.com



# New and updated regulatory content

Allison Brooks and Desiree Sparella

November 2021 | WERCS Studio Virtual User Group

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# Agenda

## **New SDS content**

- Israel, Philippines

## **Regulatory updates — SDS content**

- EU, New Zealand, Australia, South Korea, Japan, Taiwan

## **Content structure updates**

- Rule stream structure, release schedule and notes, transportation application settings

## **New content — upcoming**

- SDSs, labels, enhancements

## **GHS Rev. 8 and 9 overview**

# New SDS content

Allison Brooks

# New SDS content — Israel

- SI 2302 Part 1 2019 - Dangerous Substances and Mixtures: Classification, Labelling, Marking and Packaging took effect on Aug. 9, 2019, with a three-year transition period ending Aug. 9, 2022
- EU CLP is acceptable — revision unclear
- New LGHS subformat following closely to Europe
  - Language for publication: Hebrew
  - GHS Revision: Rev. 7
  - Excluded building-block deviation from EU: Desensitized explosives

# New SDS content — Philippines

- EMB Memorandum Circular No. 2015-011 "Guidance Manual for DAO 2015-09"
  - Single substances — beginning 2016
  - Toxic mixtures — 2019
- New PGHS subformat:
  - Language for publication: English
  - GHS Revision: Rev. 4
  - Exclusions include flammable liquids (Cat. 4), acute toxicity (Cat. 5), skin corrosion/irritation, (Cat. 3), hazardous to the aquatic environment short-term (acute) (Cat. 2, 3), hazardous to the aquatic environment short-term (chronic) (Cat. 3, 4)



# Regulatory updates — SDS content

Allison Brooks

# Regulatory updates — EU

## **Jan. 1, 2021 — Regulation (EU) 2020/878 in effect**

- Content update released in August 2020
- Two-year transition for all SDSs — Dec. 31, 2022

## **Major changes**

- Addition of unique formula identifier (UFI) and nanoform designation
- Addition of fields to manage endocrine disruptors and associated data for health and the environment
- Inclusion of SCLs, M-factors and ATE values within Section 3
- Additional physical hazard properties added within Section 9 to capture requirements addressed in two new sections — 9.2.1 and 9.2.2
- Addition of EU and country-specific regulatory list data, e.g., EU Biocides, Netherlands and Denmark, within Section 15

# Regulatory updates — EU

## 15<sup>th</sup> ATP Update — nitric acid deviations

- Timeline for compliance: March 1, 2022
- Classification for nitric acid is now represented by two classifications depending on concentration within mixture:
  - >70% nitric acid
  - ≤70% nitric acid
  - Classification representation, SCL thresholds and acute toxicity ATE for calculation depends on concentration present

Annex VI Entry	Ox. Liq. SCL	Hazard Class and Category	Suppl. Hazard statement Code(s)	Health SCL, M-factors, ATE
Index No. 007-030-00-3 nitric acid ...% [C ≤ 70 %] Ox. Liq. 3 Acute Tox. 3 Skin Corr. 1A	(< 65%)	Acute Tox. 3 Skin Corr. 1A	EUH071	inhalation: ATE = 2,65 mg/L (vapours) ; Skin Corr. 1A; H314: C ≥ 20 %; Skin Corr. 1B; H314: 5 % ≤ C < 20 %
	≥ 65 (- ≤ 70%)	Ox. Liq. 3 Acute Tox. 3 Skin Corr. 1A	EUH071	(not applicable)
Index No. 007-004-00-1 nitric acid ...% [C > 70 %] Ox. Liq. 2 Acute Tox. 1 Skin Corr. 1A	(> 70 -) < 99%	Ox. Liq. 3 Acute Tox. 1 Skin Corr. 1A	EUH071	(not applicable)
	≥ 99%	Ox. Liq. 2 Acute Tox. 1 Skin Corr. 1A	EUH071	(not applicable)

# Regulatory updates — New Zealand

## **April 30, 2021 – Hazardous Substances (Safety Data Sheets) Notice 2017 | EPA Consolidation**

- Update from GHS Rev. 5 to 7 implementation
- Four-year transition period

### **Major changes**

- Removal of HSNO classification numbering system from Section 2, 13 and 15
- Building block updates with removal of previously included building blocks
- Removal of codification of hazard phrases
- Consolidation of soil toxicity, terrestrial vertebrates and invertebrates into one category: hazardous to the terrestrial environment
- Pesticide requirements now only required for agricultural chemicals
- ADGEAC – Hazchem code population via Transportation Wizard

# Regulatory updates — Australia

## **Jan. 1, 2021 — Model Work Health and Safety Regulations (Hazardous Chemicals) Amendment 2020**

- Transition from GHS Rev. 3 to Rev. 7
- Adopted within states and territories via the Model Workplace Health & Safety Regulations
- Two-year transition period

### **Major changes**

- Building block updates and additions
- Removal of codification of hazard statements
- Determination of the Poisons Schedule number under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
- Terrestrial ecotoxicity elements added to Section 12
- Section 15 updates under recommendation in the Code of Practice guidance
- ADGEAC — Hazchem code population via Transportation Wizard

# Regulatory updates — South Korea

## Jan. 16, 2021 — Ministry of Employment and Labor (MOEL) Public Notice No. 2020-130

- Transition from GHS Rev. 4 to GHS Rev. 6 (based on adoption)
- No transition period for new (M)SDSs
- Transition dates for (M)SDSs prepared prior to enforcement date need to be updated per schedule set based on annual manufacture/import tonnage — final date of Jan. 16, 2026

## Major changes

- Building block additions with new concentration limits for disclosure
- Hazard and Precautionary statement translation updates per new regulation
- New usage classification system has been added to regulations, captured within Section 1
- Separation of Print-flag rule group within stream — applicable for customers that wish to not disclose formulation via (M)SDS and use one of the other two methods in compliance with MOEL 2020-130
- Confidential Business Information (CBI) overhaul introduced with the establishment of two subsections in Section 3 for management of the approval number and expiration dates of the CBI components

# Regulatory updates — Japan

## New logic updates

- Follows intent of JIS Z 7253:2019 standard
- Logic adds determination to Section 2 classification for endpoints “Not classified” versus “Classification not possible”
  - Delivered to follow hierarchy scheme suggested by UL: JPN > MTR classification scheme
  - Easily customized to work for systems only relying on Japan classification scheme for JGHS template
- Logic update to identify when mixtures contain certain hazardous substances below classification thresholds via phrase logic population below the formula disclosure in Section 3
  - Applicable to respiratory/skin sensitizers, CMRs and STOT SE and RE substances

# Regulatory updates — Taiwan

## Separation of Taiwan from UN GHS base codes

- TWNG used global codes — thus pushed to a Rev. 7 upon GHS Wizard updates (Taiwan is Rev. 4)
- Content overhaul — created new template and code set (4GHS) linked to Rev. 4 via USEREV4 application setting
- Separation of regional codes relating to GHS, print-flags, and Tier II (SDS content) updated
- Legends, country-specific data codes, and customer-specific codes reused

## Regulatory and content updates — major changes

- Rules added to include components with physical hazards over 1% in Section 3
- Application setting added for 4GHS to map Taiwan's recommended classifications
- Toxic and Concerned Chemical Substances Control Act — Concerned Chemicals content added



# Content structure updates

Allison Brooks

# Rule stream updates

- Rule streams are licensed and delivered to customers via the GCS license key by region.
- There are two main parts to the rule streams that will be delivered via GCS:
  - 1) **GLOBAL** rule stream assignment, determined by the purchase of the transportation wizard. Contains rule groups that are designed to run for all regions
  - 2) **MARKET** rule stream(s) assigned (there may be more than one for a given region), which contains rules specific to a region
- A one-time build of the **USER** rule streams will need to be configured for each region using the combination of global and market rule stream elements with regards to full wizard processing, partial wizard processing and no wizard processing.

# Rule stream updates

There are three potential processing methods for rule streams:

- **Full wizard processing**, including GHS and Transportation Wizards.
- **Partial wizard processing**, including GHS Wizard (NO Transportation Wizard).
- **No wizard processing**, which does not execute any wizards, but does include rules to populate the SDS for Sections 3 through 15.

# Rule stream updates

Rule group name	Full	Partial	No Wizard
RESERVED: Market – North America STARTING POINT - Full process	1		
RESERVED: Market – North America STARTING POINT - Partial process		1	
RESERVED: Market – North America STARTING POINT - Post manual GHS Wizard classification change			1
RESERVED: Global - Temperature conversions (C to F)	2	2	
RESERVED: Global - Temperature conversions (F to C)	3	3	
RESERVED: Global - Data prep for wizards and rules	4	4	
RESERVED: Global - GHS wizard - Transportation Outputs (2GHS) Only	5		
RESERVED: Global - EU DPD, Transport wizards	6		
RESERVED: Market - GHS wizard - US/Canada Combined	7	5	
RESERVED: Global - Populate SDS based on Physical Hazards	8	6	2
RESERVED: Global - Populate SDS based on Health, Env Hazards - Cat 1s	9	7	3
RESERVED: Global - Populate SDS based on Health, Env Hazards - Cat 2s	10	8	4
RESERVED: Global - Populate SDS based on Health, Env Hazards - Cat 3s	11	9	5
RESERVED: Global - Populate SDS based on Health, Env Hazards - Cat 4s	12	10	6
RESERVED: Global - Phrase Precedence	13	11	7
RESERVED: Global - Positive Statements and Legends	14	12	8
RESERVED: Global - Regional Regulations - NFPA/HMIS (using regional codes)	15	13	9
RESERVED: Market - Regional Regulations - North America	16	14	10
RESERVED: Market - North America - Populating P-statements for HNOCs in NGHS	17	15	11
RESERVED: Global - Remove redundancy for Rev 5 P-statements	18	16	12

# Rule stream updates

An example of a USER rule stream would be:

- The global full processing rule stream is imported into WERCS Studio.
- The market rule stream is imported into WERCS Studio.
- Using the parts of the global rule stream and the market rule stream, a rule stream is created called USER: NO WIZARD PROCESSING for region X.
- Customer-specific rule groups are added to the rule stream for region X.

# Rule stream updates

**RESERVED: Market — Europe STARTING POINT — Post manual GHS Wizard classification change**

**RESERVED: Global — Populate SDS based on Physical Hazards**

**RESERVED: Global — Populate SDS based on Health, Env Hazards — Cat 1s**

**RESERVED: Global — Populate SDS based on Health, Env Hazards — Cat 2s**

**RESERVED: Global — Populate SDS based on Health, Env Hazards — Cat 3s**

**RESERVED: Global — Populate SDS based on Health, Env Hazards — Cat 4s**

**RESERVED: Global — Phrase Precedence**

**RESERVED: Global — Positive Statements and Legends**

**RESERVED: Market — Regional Regulations — Europe Q320200807**

**RESERVED: Global — Remove Redundancy for Rev 5 P-Statements**

**CUSTOMER: Rules Specific to Customer**

# Rule stream updates

## Benefits of new structure

- Allows for the syncing process to happen MUCH more quickly
- User rule streams can be easily configured to the customer's needs without needing modification after syncing occurs
- Customers can remove any of UL's provided rule groups if they do not fit with their business process

# Release schedule and notes

## Release schedule

- Global regulatory content will be made available on GCS on a quarterly basis
- Customers who pay maintenance on their templates will have access to the updates

## Release notes

- Release notes will be made available to customers via a link in the WERCS Studio Newsletter or can be requested from their PM/CSR
- Critical updates will be identified
- Updates that will be automatically brought into the Studio environment will be indicated (e.g. a new phrase added to a reserved family) versus updates that will require manual intervention (e.g. application settings, new data code added to authoring subformat)



# Transportation Wizard and application settings

## Critical Transportation Wizard updates

- Australia ADGEAC added to Transportation Wizard (formerly populated via rules)
- Brazil ANTT added to Transportation Wizard
- UN Model regulation (non-regional) transport data added to Transportation Wizard outputs
- ORM-D related outputs no longer apply for DOT. The TW logic has been updated to accommodate limited quantity classifications for DOT.
- Enhancement for the ability to add a “solution” or “mixture” qualifier to the proper shipping name and description in translated languages

# Transportation Wizard and application settings

## New application settings and related 2GHS template

- Transportation database version now displayed in TW module
- When running full processing rule stream, TW is executed in silent mode against the MTR/2GHS subformat (currently on GHS Rev. 5)
  - TRANSPORT >SUBFORMAT>2GHS
- 2GHS now contains all fields available as outputs from Transportation Wizard.
  - Customers can pull fields from 2GHS — Supplemental Transport Information onto any other document/subformat
  - All captions for fields in Supplemental Transport Information have been translated in all languages

# New content — upcoming

Desiree Sparella

# New SDS content — Brexit

## What happened

- Jan. 1, 2021 — the U.K. ended the transition period as it exited from the EU
- Any EU regulation in force on Dec. 31, 2020, was copied into U.K. law

## What happened specifically to the chemical legislation

- Both CLP (including ATPs 14 and 15) and REACH (not including the 2020 update to Annex II) were implemented, alongside other EU chemical legislation covering products such as aerosols, biocides and detergents.

## How does this impact the SDS?

- The U.K. SDS still follows 2015/830 EU guidance and not the updated 2020/878, with any EU references now being U.K. references

## What have been the difficulties with forming a U.K. template?

- U.K. Competent Authorities (HSE and DEFRA) have not provided clarification or guidance on SDS requirements

# New SDS content — Brexit

## Why is a U.K. template becoming more urgent?

- EU has kept up its regular releases of chemical legislation, with the 16<sup>th</sup> and 17<sup>th</sup> ATPs published alongside changes to substances affected by REACH authorisations and restrictions
- U.K. has not kept pace with these changes (due to a significantly smaller resource) and, in some instances, does not agree with EU's decisions with adoption of everything unlikely
- Results in some substances having legally different classifications and potential for different authorizations and restrictions under REACH

## Upcoming content release — fourth-quarter release (January 2022)

- XGHS code system — with subformat following the 2015/830 option
- Statement of compliance will be changed to U.K. specifically
- Section 8 OELs only need to be for the U.K.
- New LOLI mappings to follow U.K.-specific classification lists and Section 15 outputs
- Hierarchy will not be set to allow for MTR to be backup (modified within customer system)
- U.K.-specific REACH Registration number fields to be added as well as any other potential U.K. identifiers

# Updated SDS content — Chile

## **Feb. 9, 2021 — Decree 57 Regulation**

- Transition period ends Feb. 9, 2022, for industrial-use substances
- Implements GHS Rev. 7 (current template follows this per draft release)

## **Content updates — fourth-quarter release, January 2022**

- NCh 382 and NCh 1411/4 classifications in Section 2 to be removed
- Updates to Sections 6, 7, 8, 9, 10, 11 and 12 to align with new template regulations

## **Further investigation**

- Chile released mandatory classification lists
- Appears they adopted all EU ATPs published to date — undergoing confirmation and further action

# New SDS content — South Africa

## **March 29, 2021 — Regulations for Hazardous Chemical Agents, 2021**

- Regulation implicates hazard classes are based on GHS Rev. 8, 2019 adoption; however, it appears it is a partial adoption based on the exclusion of Chemicals Under Pressure as well as alluding that with newer versions of GHS Purple Book adoptions can change
- Other exclusions: explosives, pyrophoric and chemically unstable gases, aerosols (Cat. 3), flammable liquids (Cat. 4), desensitized explosives, acute toxicity (Cat. 5), skin corrosion/irritation, (Cat. 3), eye irritation/damage (Cat. 2B), hazardous to the aquatic environment short-term (acute) (Cat. 2, 3), hazardous to the aquatic environment short-term (chronic) (Cat. 3, 4)

## **Upcoming content release — first-quarter 2022 release (April 2022)**

- Revision 8 change to be implemented — new P-statement language where medical attention, advice, poison control, etc. to language consistent with “medical help”
- South African National Standard (SANS) 10234 should be consulted as alternate guidance to HCA Regulation, only where version differences between that and latest version of GHS Purple Book are the same, with primary guidance coming from latest revision of purple book (Rev. 9 review for SDS language to allow consistency to regulation)

# New content — label subformats

## Content offering — standalone release (Q4 2021)

- Label element subformats offering to complement regulation requirements as they pertain to SDSs and associated labeling
- Label element subformat for each region support by UL's SDS content

## Content details (overview)

- Content to include standardized GHS label elements per subformat (synced from SDS output) and additional elements required specific to labeling
- Content package includes label subformat with presentation of all elements that may be required for compliant label, additional rule automation specific to labeling and User Guide.
- Not all elements presented will be driven by automation, as information may be specific to product, product package size and product type
- Some regions require a reduction of P-statements for the label (explained in User Guide)
  - Reduction is manual as there is no guidance per region on how this should be done
  - Secondary element offered to use to manage the reduction of P-statements for labeling
  - If region is on a Rev. 5 or higher, suggest taking advantage of regional (G)HSPO logic already maintained (based on guidance from EU) to manage the reduction of P-statements



# New content — system enhancements and content delivery

## **Conversion of CVAL Component Tables to intake translations easily**

- UL's Regulatory Content team is working with Development to enhance CVAL alphanumeric data to load, allowing for translation of text
- Improvements in Section 8 (occupational/exposure limit tables, Section 11 and 12 (toxicity tables)) where applicable
- New upcoming enhancement with target of mid-2022

## **Transportation proper shipping name translations**

- Expanding translation library to include all proper shipping name translations for entire language library
- Content will be offered via Transportation Database (licensed separately)
- Enhancement to content with a target of early- to mid-2022 with potential for future development to transportation wizard as needed for intake
- Replace all current proper shipping name support (minimal set) currently offered via GCS Phrase Library

# GHS updates








Revisions 8 and 9



# Revision 8 — major changes

## Inclusion of chemicals under pressure as part of Chapter 2.3 on aerosols

- These are liquids or solids, pressurized with a gas of 200 kPa or more at 20 °C in a pressure receptacle other than an aerosol dispenser, and not classified as a gas under pressure.

Classification			Labelling				GHS hazard statement codes
GHS hazard class	GHS hazard category	UN Model Regulations class or division	GHS pictogram	UN Model Regulations pictogram	GHS signal word	GHS hazard statement	
Chemicals under pressure (section 2.3.2)	1	2.1			Danger	Extremely flammable chemical under pressure: may explode if heated	H282
	2					Flammable chemical under pressure: may explode if heated	H283
	3	2.2			Warning	Chemical under pressure: may explode if heated	H284
				or			
							

# Revision 8 — major changes

## **Changes to how skin irritation/corrosivity is managed**

- Updates to tests to be used and methodology
- Unlikely to have a major impact on existing products and substances, this is unlikely to have a major impact
- Support to reduce animal test requirements replacing with validating alternative methods taking priority

## **Changes to precautionary statements**

- Altercation of codification and wording of several precautionary statements with a focus on those for the new 'Chemicals under pressure' classification and those statements advising medical assistance
- New rules of precedence for medical assistance precautionary statements

# Revision 8 — major changes

## Introduction of precautionary pictogram to "Keep out of reach of children"

- To be used in conjunction with the phrase to provide added clarity and user awareness
- No set pictogram is required, but the following two are recommended as having high recognition by consumers in scientific studies













## Inclusion of guidance on combustible dusts

- Addition of Annex 11 — Guidance on other hazards not resulting in classification
- Provides guidance on:
  - Factors that contribute towards a dust explosion hazard
  - Hazard identification
  - Risk assessment needs
  - Prevention, mitigation and communication around the hazard

# Revision 9 — major changes

## Revision of Chapter 2.1 (Explosives), divided into two categories

- Category 1
- Category 2: 2A, 2B, 2C
- Does not align with UN Model Regulations
- H statements deleted, revised and added

Classification			Labelling				GHS hazard statement codes
GHS hazard class	GHS hazard category	UN Model Regulations class or division	GHS pictogram	UN Model Regulations pictogram <sup>a</sup>	GHS signal word	GHS hazard statement	
Explosives	1	Not applicable		Not applicable	Danger	Explosive	H209 H210 <sup>b</sup> H211 <sup>b</sup>
	2A	1.1			Danger	Explosive	H209
		1.2					
		1.3					
		1.5					
		1.6					
	2B	1.4			Warning	Fire or projection hazard	H204
	2C				Warning	Fire or projection hazard	H204

# Revision 9 — other changes

- Revision of classification decision logics — formatting
- Revision of classification and labelling summary tables in Annex 1 — adds UN Model Regulations class or division
- Revision, addition and rationalization of precautionary statements
  - P203, P210, P222, P230, P234, P240, P250, P280, P370, P372, P373, P375, P380 are partially revised
  - New "P236 Keep only in original packaging; Division... in the transport configuration"
  - P264 is partially revised and applicable to serious eye damage and irritation
  - P265 — do not touch eyes (new combination statements)
- The updating of references to OECD test guidelines for the testing of chemicals in Annexes 9 (aquatic environment) and 10 (metals in aqueous media)

# Questions

Allison Brooks and Desiree Sparella  
Regulatory Affairs managers  
UL.com



# Break



# Ask The Experts – Hazard Communication and Content / Module Workshop

November 2021 | WERCS Studio Virtual User Group

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# Meet your panel of experts

## **Moderator:**

- Stacie Abraham

## **Regulatory:**

- Eleanor Grimes
- Caroline Miller
- Alexis Sumner
- Darlene Susa-Anderson

## **Technical:**

- Ally Brooks
- Andrea Fanos
- Josh Larkin
- Desiree Sparella

# Enhancement suggestions

- Link will be placed in chat at the conclusion of today's session
- Collect enhancements through the end of session on Wednesday
- Review the suggestions during our session on Thursday
- Voting will begin after the session on Thursday and remain open through Friday at 8pm EST



## 2021 WERCS Studio User Group: Enhancement Submissions

\* Required

1. Please enter your name \*

2. Please enter your personal company email address \*

3. Please enter your company name \*

4. Please describe your enhancement suggestion. \*

Submit

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