SCHC ANNUAL MEETING · OCTOBER 2026

# Brazilian GHS in Practice

*Recent updates, future developments, and global comparisons*

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Member, ABNT/CB-010 — Brazilian Committee for Chemistry

02 WHO IS SPEAKING

# Tatiana Moneró



| | |
|---|---|
| EDUCATION | BSc in Environmental Chemistry, UNESP. MSc in Environment, Health and Sustainability, USP - University of São Paulo. |
| DAY JOB | Global GHS product specialist at Lisam — Responsible for the Brazilian module of the ExESS software, supporting customers worldwide in creating Brazilian SDS, and delivering training sessions and webinars for Lisam Brazil |
| STANDARDS WORK | Member of ABNT/CB-010, the Brazilian committee for chemistry, since 2013 — the committee that writes NBR 14725. |
| WHY THAT MATTERS | I help companies apply the rules, and I sit in the room where the rules are written. |

03 BEFORE WE START

# What you will take away

| | |
|---|---|
| ONE | Read a Brazilian safety data sheet through the right lens. |
| TWO | See what is coming, and when. |
| THREE | Understand how Brazil compares with other systems. |

01

# Where Brazil's GHS came from

05 WHERE IT CAME FROM

# History of GHS Implementation in Brazil

| | |
|---|---|
| **2001** | First edition of ABNT NBR 14725 — a short national standard, not based on GHS. |
| **2009** | Split into four parts: terminology, classification, labelling, safety data sheet. |
| **2011** | Ordinance/Portaria 229/2011 amends NR-26. **GHS becomes mandatory in Brazilian workplaces**. |
| **2012–19** | The parts are revised separately: Part 3 in 2012 and 2017, Part 4 in 2014, Part 2 in 2019. |
| **2020–22** | Four national public consultations on the new version. |
| **2023** | ABNT NBR 14725: 2023 published on 3 July, based on GHS Rev. 7. |
| **2025** | **Mandatory from 4 July.** |

06 WHERE IT CAME FROM

# Who writes the Brazilian standard

| | |
|---|---|
| THE COMMITTEE | ABNT/CB-010, the Brazilian Committee for Chemistry, develops and revises the standards for chemicals and the chemical industry. |
| WHO IS IN THE ROOM | Industry, government, universities, laboratories and other stakeholders. |
| HOW IT BECOMES A STANDARD | The committee submits the draft to ABNT agency for national consultation, approval and publication. |
| MY SEAT | Member since 2013. I am also in a smaller group inside the committee, around six of us, that reads the draft word by word and definition by definition, to keep it aligned with GHS. |

# How to Access and Purchase the Standard


NORMA BRASILEIRA

ABNT NBR 14725

Primeira edição 03.07.2023

Versão corrigida 2 08.04.2025

Produtos químicos — Informações sobre segurança, saúde e meio ambiente — Aspectos gerais do Sistema Globalmente Harmonizado (GHS), classificação, FDS e rotulagem de produtos químicos

*Chemicals — Information about safety, health and environment — General aspects of Globally Harmonized System (GHS), classification, SDS and labelling of chemicals*

ICS 71.100.01

ISBN 978-85-07-09600-9

ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS

Número de referência ABNT NBR 14725:2023 520 páginas

© ABNT 2023

### WHERE TO GET IT

ABNT Catálogo website — The standard must be purchased and is not freely available.

### PRICE

R$ 268.50 for the current corrected version — roughly US$ 50.

### FORMAT

Once bought, it can only be read on the official website. There is no downloadable PDF.

### LANGUAGE

Portuguese only. No translation is expected.

02

# What changed in 2023

*ABNT NBR 14725:2023 against the standard it replaced*

# One standard, different GHS revisions

## BEFORE · ABNT NBR 14725, IN FOUR PARTS

| | | |
|---|---|---|
| PART 1 | **Terminology**<br>2009 | **Rev. 1** |
| PART 2 | **Hazard classification**<br>2019 | **Rev. 1**<br>*+ selected elements of Rev. 7* |
| PART 3 | **Labelling**<br>2017 | **Rev. 4** |
| PART 4 | **FISPQ**<br>2014 | **Rev. 4** |

## AFTER · ONE DOCUMENT

### ABNT NBR 14725:2023

*GHS Rev. 7 throughout*

| | |
|---|---|
| 5 | Classification of substances and mixtures |
| 6 | Hazard communication — Labelling |
| 7 | Hazard communication — SDS |
| | **Annexes A to O**<br>*where most of the 300 new pages went* |

**Before 2023 each part was updated separately, which caused inconsistencies between classifications and label elements.**

# This was not a small update

| | | |
|---|---|---|
| **4 → 1** | PARTS | *Four separate parts became one standard* |
| **216 → 520** | PAGES | *The standard is two and a half times bigger* |
| **Rev. 1– 4 → 7** | GHS VERSION | *Brazil moved about ten years forward in one step* |
| **24** | MONTHS TO COMPLY | *3 July 2023 to 4 July 2025* |

# Twenty-four months, and both standards valid

**3 Jul 2023**
ABNT NBR 14725:2023 published.

**28 Feb 2024**
Errata 1:2024 – small corrections

**8 Apr 2025**
Errata 2:2025 — pre-printed packaging allowed until stock runs out.

**4 Jul 2025**
Mandatory. The deadline was not extended.

*During the transition a Brazilian customer could receive two different safety data sheets for the same product, and both were correct.*

# FISPQ became FDS

FISPQ

## Ficha de Informações de Segurança de Produtos Químicos



FDS

## Ficha com Dados de Segurança

*Brazil kept its own acronym for fifteen years, and it matched nothing. FDS is a direct translation of Safety Data Sheet – harmonized with other regions*

# Physical hazards

| | | |
|---|---|---|
| **16 → 17** | NEW HAZARD CLASS | *Desensitized explosives added* |
| **Flammable Gases** | NEW DIVISION | ***Category 1A*** *— split into flammable gas, pyrophoric gas, and chemically unstable gas A and B*<br>***Category 1B***<br>***Category 2***<br>*(Before: Category 1 and Category 2)* |

# Environmental hazards

| | | |
|---|---|---|
| **2 → 3** | NEW HAZARD CLASS | *Hazardous to the ozone layer added, with H420* |
| **11 → 80** | PAGES OF CRITERIA | *Annexes K to O — M-factors, rapid degradability, metals* |

*Environmental hazard classification criteria were largely missing from the previous regulation, requiring Brazilian regulatory specialists to consult the GHS directly to classify chemicals correctly.*

# Health hazards

## LC50
**2500 → 20000 ppm**

ACUTE TOXICITY CATEGORY 4
INHALATION
GASES ONLY

*NEW range for acute toxicity category 4 – inhalation - for gases (Before 2500 – 5000 ppm)*

# Inside the safety data sheet

| | |
|---|---|
| SECTION 1 | Emergency number – available 24h/day |
| SECTION 2 | All applicable P phrases |
| SECTION 3 | Asks for chemical identity instead of chemical name (aligned with GHS now)<br>OEL values are no longer among the criteria for listing components in Section 3. |
| SECTION 9 | Particle characteristics are now required for solids. |
| SECTION 11 | Specific rules for components classified for skin sensitization; respiratory sensitization; carcinogenicity; reproductive toxicity; specific target organ toxicity, single exposure; and specific target organ toxicity, repeated exposure. |

# Labelling small packages

### SMALL PACKAGES

New rules for 250 mL and below. Fold-out labels and tags are now allowed.

### THE OLD PROBLEM

Brazil didn’t have specific rules for small packages, so, Brazilian suppliers previously relied on European rules for small packages.

# When the product never leaves the site

*New Section 6.5 — the hazard information is still required. The label is not.*

| | |
|---|---|
| **WHAT IS NEW** | For products that are not intended for external supply or sale, alternative means of communication may replace the GHS label inside the workplace. |
| **WHEN IT APPLIES** | Fractionated product, retained and analysis samples, piping, valves, process and reaction vessels, temporary systems and stationary tanks — and product made on site that is never packed for sale. |
| **WHAT COUNTS** | Summary safety documents · process flow diagrams · screens, boards and signs · coding systems · permanent marking on fixed piping and valves · batch and process orders · operating procedures. |
| **TWO CONDITIONS** | The means must be standardised across the workplace, and the target audience trained on the specific system used. |

# Hazard and precautionary statements

| | | |
|---|---|---|
| **Added** | NEW STATEMENTS | *H206; H207; H208; H232; H360D; H360Df; H360F; H360Fd; H360FD; H361d; H361f; H361fd; H303 + H313 +H333..... P212; P302+P335+P334; P336+P315; P370+P372+P380+P373; P370+P380+P375[+378]; P503* |
| **Changed** | SAME CODE, NEW TEXT | *H270 and H314; P103; P210; P231; P231+P232; P263; P280; P282; P312; P301+P312; P302+P334; P353; P303+P361+P353; P304+P312.* |
| **Removed** | P STATEMENTS | *P221 · P235+P410 · P307 · P370+P380 · P374 · P422 · P335+P334* |

# What stays valid, and which document is current

| | |
|---|---|
| PRE-PRINTED PACKAGING | Errata 2 allows packaging already printed with the old wording to be used until the stock runs out – for nonclassified products. *"Chemical product not classified as hazardous according to ABNT NBR 14725-2"* |
| PRODUCT ALREADY LABELLED | Stays valid until its own expiry date. The obligation applies to what you place on the market, not to stock already sold. |
| THE CURRENT DOCUMENT | ABNT NBR 14725: 2023 - Corrected Version 2:2025, which incorporates Errata 1 and Errata 2. |

**ABNT NBR 14725:2023 Versão Corrigida 2:2025**
Produtos químicos - Informações sobre segurança, saúde e meio ambiente - Aspectos gerais do Sistema Globalmente Harmonizado (GHS), classificação, FDS e rotulagem de produtos químicos

03

# Brazil and the world

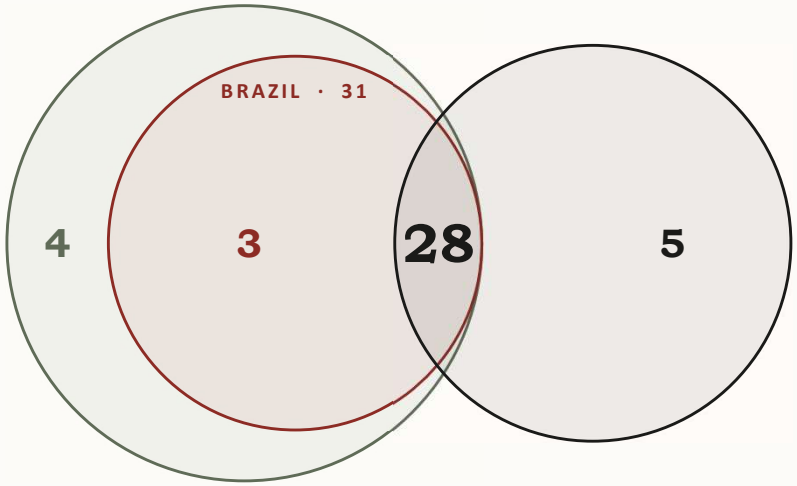
*Next to OSHA HazCom, EU CLP and the rest of Latin America*

# Same GHS, different hazard classes

**EUROPEAN UNION · 35**

THE FOUR IT HAS ALONE

Endocrine disruption — human health
Endocrine disruption — environment
PBT and vPvB
PMT and vPvM




**UNITED STATES · 33**

THE FIVE IT HAS ALONE

Chemicals under pressure
Combustible dust
Simple asphyxiant
Physical hazards not otherwise classified
Health hazards not otherwise classified

# Everything that is not shared

*Including categories.*

| | |
|---|---|
| ONLY IN BRAZIL | Acute Tox. 5 (H303, H313, H333) · Skin Irrit. 3 (H316) · Asp. Tox. 2 (H305) · Aquatic Acute 2 and 3 (H401, H402). Optional GHS categories that neither CLP nor OSHA adopted. |
| BRAZIL AND THE US | Eye Irrit. 2A and 2B (H319, H320) — CLP has only Eye Irrit. 2 · Flam. Liq. 4 (H227) — CLP stops at Category 3. |
| ONLY IN THE EU | Carcinogenicity by inhalation, code H350i. The composite codes Self-react. CD and EF, Org. Perox. CD and EF · and the four classes of Regulation 2023/707: ED HH, ED ENV, PBT/vPvB, PMT/vPvM. |
| ONLY IN THE US | Chemicals under pressure 1 to 3 · combustible dust · simple asphyxiant · hazards not otherwise classified, physical and health. |

# Classifying the mixture: where the limits diverge

*Generic concentration limits that make the mixture itself classified. Only the rows where the three do not agree.*

| % BY MASS | BRAZIL | US | EU |
|---|---|---|---|
| Carc. 2 | 1,0 | **0,1** | 1,0 |
| Repr. 1A and 1B | 0,3 | **0,1** | 0,3 |
| Repr. 2 | 3,0 | **0,1** | 3,0 |
| Effects on or via lactation | 0,3 | **0,1** | 0,3 |
| Resp. or skin sens. 1 | 1,0* | **0,1** | 1,0* |
| STOT 1 → mixture Category 1 | 10 | **1,0** | 10 |
| STOT 1 → mixture Category 2 | 1 to 10 | **—** | 1 to 10 |
| STOT 2 → mixture Category 2 | 10 | **1,0** | 10 |

## Brazil and the European Union agree on every one of them.

*GHS offers two values for each of these limits. Brazil and the EU took the higher; OSHA selected the lower GHS values — from two to thirty times lower, depending on the hazard class. For STOT, it also eliminates the intermediate band*

** Gases: 0,2 % instead of 1,0 %, in Brazil and the EU alike.*

# Comparing SDS BR x SDS US x SDS EU

*Most important sections · 1 of 2*

| THE LEGAL TEXT | BRAZIL<br>*ABNT NBR 14725:2023* | UNITED STATES<br>*29 CFR 1910.1200 (HCS 2024), Appendices C and D* | EUROPEAN UNION<br>*REACH Annex II, as replaced by Reg. (EU) 2020/878* |
|---|---|---|---|
| **Section 1**<br>**Emergency phone** | Supplier's own line or a contracted line, available 24 h | No specific requirement | Identify the emergency information service. The Member State's official advisory body may suffice. No 24 h rule, but any limit on hours or scope must be stated. |
| **Section 2**<br>**Hazards and label elements** | Check active classifications<br>Environmental classification mandatory.<br>Every applicable precautionary statement<br>Consolidation is allowed. | Check active classifications<br>Environmental classification – optional (outside the scope of the standard)<br>Precautionary statements: no rule on how many.<br>Consolidation is allowed. | Check active classifications<br>Environmental classification mandatory.<br>Mirrors the label, 6 P phrases with specific rules for precedence. |
| **Section 3**<br>**Composition** | Descending concentration, no exception.<br>Ranges free, no prescribed widths.<br>Component classification only for trade secret | No ordering rule.<br>Exact percentage, or — for trade secrets only — one of thirteen prescribed ranges.<br>Component classification never required. | Descending concentration where technically possible.<br>Ranges free, no prescribed widths.<br>Component classification always required, with class, category and H codes.<br>Also required for non-classified mixtures. |

# Comparing SDS BR x SDS US x SDS EU

*Most important sections · 2 of 2*

| | BRAZIL | UNITED STATES | EUROPEAN UNION |
|---|---|---|---|
| **Section 8**<br>**limits** | NR-15 for OELs, NR-7 for BLVs — the standard names neither. ACGIH usually added, and the sources must be given.<br>*No trade secret here: an ingredient with an exposure limit must be named, unless a confidentiality agreement is signed.* | OSHA PELs and ACGIH TLVs, both mandatory, for every component listed in Section 3 — plus any limit the preparer uses, including its own internal one. | National OELs and biological limit values, each with its legal basis, split by source: EU-harmonised or purely national. Monitoring methods required. DNEL and PNEC only where a CSR exists or the values are available. |
| **Section 14**<br>**Transport** | ANTT + IMDG + IATA | DOT 49 CFR + IMDG + IATA | ADR, ADN, and RID + IMDG + IATA |
| **Section 15** | Regulation says that it should describe the applicable regulations, but does not specify which. Normally: NR-26, ILO Convention 170, Federal Police and Army, IBAMA, ANVISA, depending on the product. | OSHA will not be enforcing information requirements in sections 12 through 15, as these areas are not under its jurisdiction. | Mandatory to include all the applicable lists. |

# The same ingredient, three answers

*Concentration at which a component must be displayed in Section 3. Only the classes where the three systems disagree.*

| % BY MASS | BRAZIL | US | EU |
|---|---|---|---|
| ***Brazil took the higher of the two GHS options*** | | | |
| Carc. 2 | **1,0** | 0,1 | 0,1 |
| Repr. 1A and 1B | **0,3** | 0,1 | 0,1 |
| Repr. 2 | **3,0** | 0,1 | 0,1 |
| Effects on or via lactation | **0,3** | 0,1 | 0,1 |
| ***The EU alone goes lower*** | | | |
| Acute Tox. 1, 2, 3 | 1,0 | 1,0 | **0,1** |

| % BY MASS | BRAZIL | US | EU |
|---|---|---|---|
| ***Sensitisers — the EU applies the elicitation limit, not the classification limit*** | | | |
| Resp. sens. 1 | 1,0* | 0,1 | **0,1** |
| Resp. sens. 1A | 0,1 | 0,1 | **0,01** |
| Resp. sens. 1B | 1,0* | 1,0* | **0,1** |
| Skin sens. 1 | 1,0 | 0,1 | **0,1** |
| Skin sens. 1A | 0,1 | 0,1 | **0,01** |
| Skin sens. 1B | 1,0 | 1,0 | **0,1** |
| …with a specific conc. limit | — | — | **SCL ÷ 10** |

*The red figure is the system that stands apart. * Gases: 0,2 % instead of 1,0 %, in Brazil and the United States alike. Brazil does not lose what falls below its cut-off: the ingredient must be named in Section 11 (Tables 30, 34 and 36).*

# Sensitisers below the cut-off

*A sensitising ingredient can be too dilute to classify the mixture and still have to appear in the safety data sheet. Each system puts it in a different place.*

| | | |
|---|---|---|
| BRAZIL | **Section 11** | From 0,1 % up to the cut-off, the ingredient and its chemical identity must be named and displayed in section 11.<br>*Still under discussion at ABNT/CB-010 — the rule may yet change in the next edition.* |
| EUROPEAN UNION | **Sections 2 and 3** | Named in Section 2 by the statement EUH208, and again in Section 3 with its concentration — from 0,1 % for Category 1 and 1B, and from 0,01 % for sub-category 1A.<br>*Lower still for a substance that carries its own concentration limit: one tenth of that limit.* |
| UNITED STATES | **No rule** | Nothing is required below the cut-off. The cut-off itself is already 0,1 % for Category 1 and sub-category 1A. |

# GHS across Latin America

| | | |
|---|---|---|
| **Brazil** | **Rev. 7** | NR-26 and ABNT NBR 14725 |
| **Chile** | Rev. 7 | Decreto Supremo N° 57/2019 · NCh 2245:2021 |
| **Colombia** | Rev. 6 | Decreto 1496/2018 and Resolución 773/2021 |
| **Peru** | Rev. 6 | Decreto Legislativo 1570 · DS 005-2026-MINAM |
| **Argentina** | Rev. 5 | SRT 801/2015 at work |
| **Uruguay** | no edition fixed | Decretos 307/009 and 346/011 |
| **Bolivia** | Rev. 6 | Andean Community Res. 2078/2019 — pesticides only |
| **Ecuador** | Partial | RTE INEN 078:2013 — an older edition |
| **El Salvador** | Rev. 6 | Decreto Ejecutivo nº 1/2025 – mandatory from February 2028 |
| **Costa Rica** | Rev. 6 | RTCR 481:2015 |

# What is changing regarding GHS in LATAM

| | |
|---|---|
| PANAMA · IN CONSULTATION | A first national GHS regulation adopting Rev. 7. Labels and safety data sheets in Spanish, along the whole supply chain. |
| ARGENTINA · IN FORCE | SENASA Resolution 373/2026 brings GHS Rev. 9 to plant protection products. Sectoral: the rest of the country stays on an earlier revision. |
| PERU · PHASING IN | DS 005-2026-MINAM builds a national chemicals regime on GHS Rev. 6, with 16-section safety data sheets in Spanish. Full scope by 2032. |

# And where it is heading

**CARICOM · DRAFT STANDARD**

A regional pesticide labelling standard from the Caribbean Community, referencing GHS Rev. 8 — the highest revision referenced anywhere in the Americas.

**PERU · NATIONAL INVENTORY**

Peru is also building a national chemical register and inventory — the same idea as Brazil's INSQ, but with the dates already set.

*Rev. 7 is no longer the ceiling. Across the region the revisions in play now run from Rev. 6 to Rev. 9.*

04

# What is coming next

# ABNT/CB-010 is working on new updates

**Translated**
GHS Revisions 8, 9, 10 and 11 translated into Portuguese.

**Incorporated**
The changes written into the draft of the next NBR 14725.

**Final review**
The working group is making the final adjustments now.

**2027**
Expected publication, following GHS Rev. 11.

**Four GHS revisions absorbed in a single step, the same way the 2023 edition did.**

# Transport by Road in Brazil

### ROAD, IN BRAZIL

ANTT Resolution nº 5.998/2022 - based on the 21st and 22nd editions of the Orange Book

### SMALL UPDATE IN 2024

ANTT Resolution nº 6.056/2024

### 2026 – NATIONAL CONSULTATION

ANTT Resolution No. 5.998/2022 was open for public consultation from may to June 2026 and is expected to be aligned with the 23rd revised edition of the UN Model Regulations.

# The Mercosur Tremcard is in force

*A closed model of fifteen sections, in the languages of the countries of origin, transit and destination.*

| | | |
|---|---|---|
| **2021** | Mercosur adopts one emergency-sheet model: fifteen fixed sections (GMC Res. 28/21) | ADOPTED |
| **Oct 2022** | Brazil approves the model — ANTT Resolution 5.996/2022 | APPROVED |
| **10 Apr 2024** | Decree 11.991/2024 brings the model and its filling instructions into Brazilian law | PROMULGATED |
| **21 May 2025** | Paraguay completes internalisation; the model becomes enforceable across the bloc | IN FORCE |
| **22 Jan 2026** | ABNT NBR 7503:2026 adds Annex C — the Mercosur model inside the Brazilian standard | PUBLISHED |

*Inside Brazil the wording went the other way: since ANTT Resolution 5.848/2019 the ficha de emergência is no longer named among the documents to be carried — the rules speak only of the transport document, which leaves room for formats other than the standardised NBR 7503 sheet.*

# Brazil's national chemical inventory

*Law 15.022/2024*

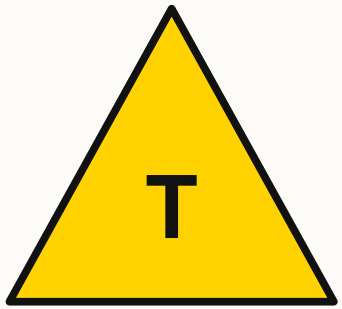
| | |
|---|---|
| WHAT IT CREATES | A national inventory of chemical substances (INSQ), built from a national register (CNSQ) filled in by industry. It is the starting point for prioritising, evaluating and managing risk. |
| WHO MUST REGISTER | Manufacturers and importers of substances, alone or in mixtures, at 1 tonne per year or more as a three-year average. A foreign manufacturer may appoint an exclusive representative in Brazil. |
| WHAT YOU REPORT | The identity of the substance and of its manufacturer or importer, the annual volume, the recommended uses, and the toxicological and ecotoxicological hazard data, based on the GHS classification. |
| WHERE IT STANDS | *In force since November 2024, and the register does not exist yet. The 180-day deadline of Article 42 has passed, and a multidisciplinary working group is drafting the decree.* |

# “Mum, is this cookie toxic?”

*My two children, in a supermarket in São Paulo.*



# They just read the sign




*Decreto 4.680/2003*
*Portaria MJ 2.658/2003*

| | |
|---|---|
| WHAT THEY SAW | A yellow triangle with a bold black T. |
| WHAT IT MEANS | In Brazil, that symbol means the food contains genetically modified ingredients. |
| WHY THEY READ DANGER | They often hear me say that some things can be harmful or toxic to our health. |

**A symbol communicates only what its audience has learned to see.**

# Thank you!

*Questions and discussion*

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