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# Decoding Global Electronics Regulations: Your Essential 2025 Guide

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# 01. About The Author



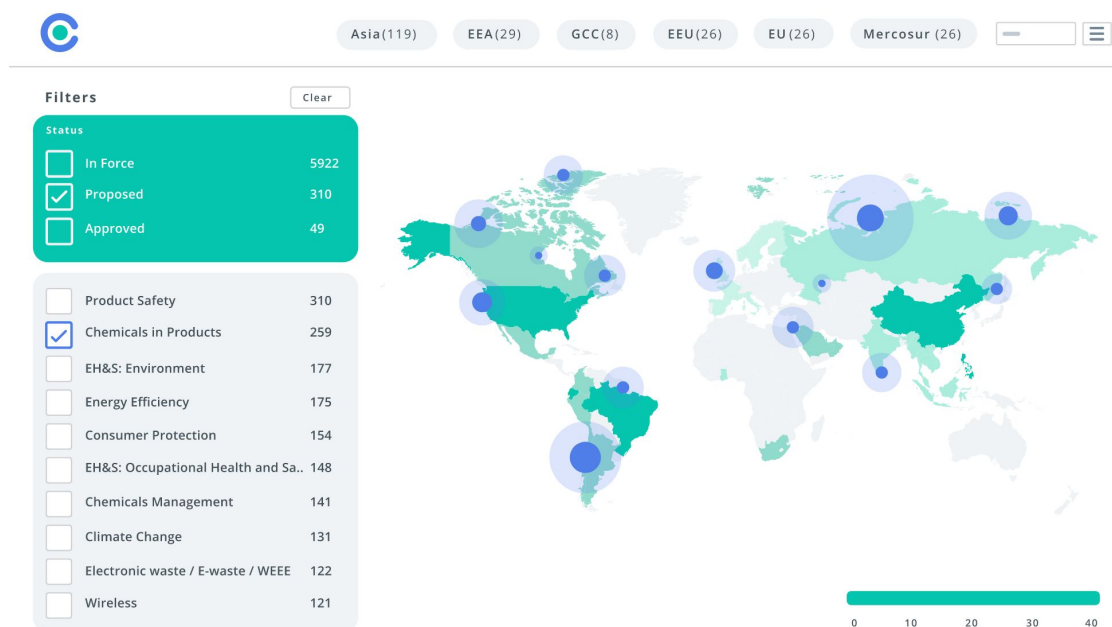
## **Juliana Kecerová, Senior Regulatory Compliance Specialist, Compliance & Risks**

Juliana Kecerová is a Senior Regulatory Compliance Specialist, working with the company since 2015, with a focus on consumer electronics, water efficiency and batteries. She specializes in researching and monitoring legislative activity in Ukraine, Slovakia, Czechia, Hungary and Croatia.

Juliana graduated with a Master's Degree in British and American Studies at Pavol Jozef Safarik University of Kosice, Slovakia. She is a native Slovak speaker and is fluent in English and Czech, with good competencies in Polish and Hungarian.

## 02. Unlocking Market Access

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## 03. Introduction

The electronic components industry operates within an intricate web of global regulations that are constantly being updated and amended.

The increasing restrictions on hazardous substances, environmental impact considerations, and consumer safety concerns necessitate a proactive approach for manufacturers, suppliers, and industry stakeholders.

This guide provides a comprehensive analysis of the latest regulatory trends impacting electronic components, focusing on amendments to the EU RoHS Directive, China RoHS updates, California Proposition 65 revisions, and the global regulation of perfluoroalkyl and polyfluoroalkyl substances (PFAS).

Based on our popular webinar '[Regulatory Trends Impacting Electronic Components](#)' held in March 2025, we highlight the top themes and trends to be aware of, as well as highlighting potential challenges and actions for companies.

This guide provides insights and guidance on:

- Proposed amendments to the EU RoHS Directive
- China RoHS Standard Amendment as regards the addition of 4 phthalates
- California Prop 65
- Global PFAS regulatory updates
- And more!

By understanding these key regulatory areas, businesses can better equip themselves to ensure product compliance, secure market access, and effectively mitigate potential risks.

## 04. Trends in Consumer Electronics

What trends are we seeing in product regulation? The graph below from [C2P](#) shows year on year growth in regulations globally.

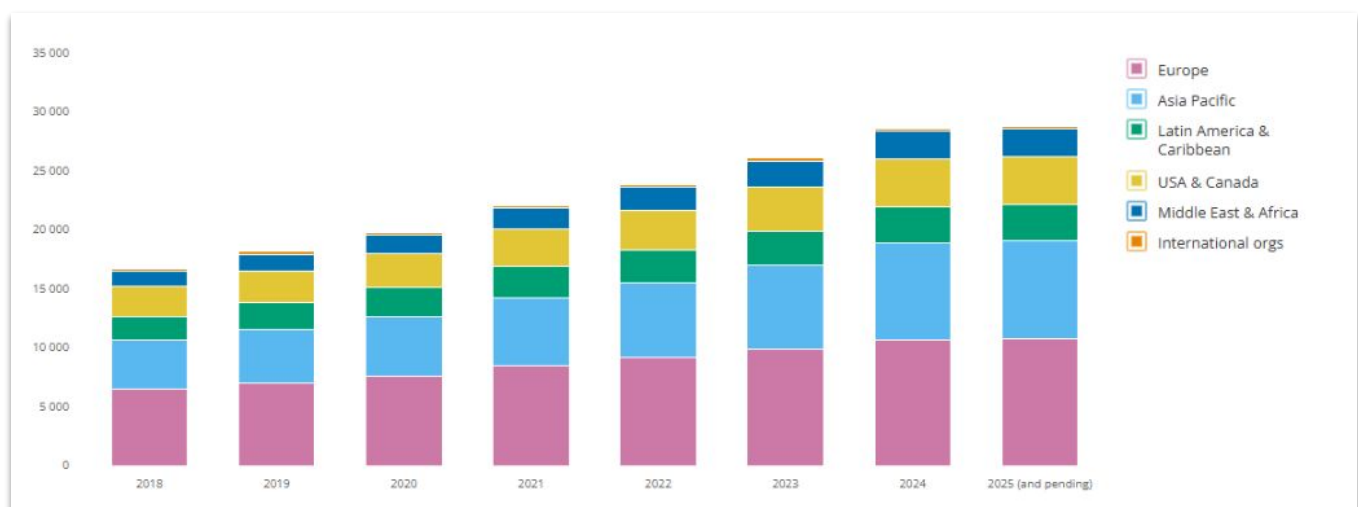
The world of consumer electronics is changing, reflected by consumer and legislative demands for more sustainable practices and products. More importance is being placed on climate neutral, resource-efficient economies, resulting in increased regulations everywhere. The added complexity of connected devices, challenging traditional concepts of product safety, is resulting in even greater regulation of extended producer responsibility, circular economy and sustainability.

The figure on the below shows a **72% increase** in regulations for consumer electronics manufacturers since 2018, with 28,851 regulations in place by 2025 (and pending.)

Never before has the need to protect our environment been more to the forefront of the world's consciousness. Regulators are fast responding, enacting measures focused on minimising the environmental impacts of products.

The net result is even more regulation to contend with.

As noted by the EU Commission *"Products use up massive amounts of materials, energy and other resources and cause significant environmental impacts throughout their lifecycle, from the extraction of raw materials, to manufacture, transport, use and end of life. Half of global greenhouse gases and 90% of biodiversity loss are caused by extracting and processing primary raw materials."*



Global Regulation Trends In Consumer Electronics.  
Source: C2P by Compliance & Risks

# 05. EU RoHS Directive Amendments

## A Closer Look at Lead, High Melting Solder, and Glass/Ceramic Exemptions

The EU RoHS Directive is a cornerstone of regulating hazardous substances in electrical and electronic equipment (EEE).

It restricts the use of certain materials and components, but also provides exemptions under specific conditions. It is important to note that annexes 3 and 4 to the RoHS directive list the materials and components of EEE for specific applications exempted from the substance restrictions in Article 4 of the RoHS Directive.

In January 2025, the EU Commission notified the WTO of three draft amendments, signaling ongoing adjustments to these critical regulations.

**Lead Exemptions:** The first amendment addresses exemptions for lead as an alloying element in steel, aluminum, and copper. The evaluation of renewal requests has largely met the criteria for granting renewal, leading the EU Commission to propose renewing the exemption. However, these renewals come with specific expiry dates and conditions. For example, exemptions related to lead as an alloying element in steel have expiry dates of 12 months after the directive's entry into force and December 31, 2026. Similar specific conditions apply for lead as an alloying element in aluminum and copper. It's also important to note that the exemption will not cover triple E for supply to the general public, where the triple E or accessible part thereof may during normal or foreseeable conditions of use, be placed in the mouth by children.

**High Melting Temperature Solder Exemptions:** The second proposed amendment focuses on exemptions for lead in high melting temperature solders. The RoHS Directive currently permits the use of lead-based solders containing at least 85% lead by weight under specific exemptions.

These exemptions are granted under specific conditions, such as when alternatives are not available or substitutes may result in greater environmental or health impacts. The technical and scientific assessment identified 7 areas of application, further specified by technical conditions. Again, similar to the first amendment, there are varying expiry dates.

**Glass and Ceramic Component Exemptions:** The third draft amendment pertains to exemptions for lead in glass or ceramic components. The EU Commission, acknowledging the time that has passed since the technical assessment, has proposed limited validity periods for exemptions 72, 75, and 76. This is to allow applicants the opportunity to provide missing data and substantiate claims from the previous assessment. Like the other amendments, specific expiry dates apply, with different dates for different functions and categories.

The amendments emphasize scientific and technical progress while considering socioeconomic impacts and the availability of substitutes. Manufacturers must adapt to these changes to maintain market access in the European Union.





## 06. China RoHS Standard Amendment

### Implications of Phthalates Addition and Labeling Requirements

China RoHS has undergone a significant amendment, expanding the list of restricted hazardous substances.

In July 2024, China RoHS was extended to cover a total of 10 restricted hazardous substances, including the addition of 4 phthalates to the list. This change introduces new obligations for manufacturers, with an 18-month transitional period running until January 1, 2026, to facilitate preparations.

The amendment impacts a range of electrical and electronic products. Manufacturers and importers of products listed in the first batch may not contain any of the 10 hazardous substances at levels exceeding the specified maximum thresholds. These products include refrigerators, air conditioners, washing machines, electric water heaters, printers, copiers, fax machines, televisions, monitors, microcomputers, mobile communication devices, and telephones.

Manufacturers and importers of electrical and electronic products must:

- Indicate hazardous substances via a content table.
- Label products with the EFUP (Environmentally Friendly Use Period) label, per revised standard SJ/T 11364-2024 (which now includes phthalates).
- Apply the orange EFUP label even if RoHS exemptions apply.

China's National Certification and Accreditation Administration has also replaced the GBT 26125 series with the GBT 39560 series for conformity assessment testing.





## 07. California Proposition 65

### Understanding Warning Label Revisions and Compliance Timelines

Proposition 65 in California has undergone significant amendments aimed at making warning labels more informative for consumers.

Key changes include:

- Revised short-form warnings for consumers (more informative) and clarification of safe harbor warnings for internet/catalog sales.
- New tailored safe harbor warnings for vehicle/marine parts and signal word options for food warnings (including clarification on using short-form warnings for food).
- Implementation timeline for revised short-form warnings increased from 2 to 3 years.
- During the 3-year period, retailers get a 60-day transition to update online short-form warnings after manufacturer notice.
- Reversion to original regulation text for most internet/catalog warning content.
- Internet retailers have a 60-day grace period to update online short-form warnings after receiving notice of a change during the 3-year implementation.

Short form warnings will now include at least one chemical name. Manufacturers can choose either a long form or short form label. The label should include specific elements, such as the warning symbol, and both long and short forms safe harbor warnings, the amendments allow CA warning or California warning, in addition to the word warning, to indicate the warning is being given under California law.





## 08. Global PFAS Regulations

### Reporting Requirements, New Use Rules, and International Developments

PFAS, often referred to as "forever chemicals," are facing stringent global regulations due to their environmental persistence and potential health risks.

Key regulatory developments include;

- United States: The EPA has issued rules under the Toxic Substances Control Act (TSCA) requiring reporting and record-keeping for PFAS, including byproducts, since 2011. A significant new use rule also prevents manufacturing or processing of inactive PFAS without EPA review. The EPA has also strengthened its review process for new chemicals, including PFAS.
- European Union: The REACH regulation now restricts the use of undecafluorohexanoic acid (PFHxA) in consumer textiles, firefighting foams, and food packaging.
- Canada & New Zealand: Canada requires reporting of PFAS. New Zealand will prohibit the import, manufacture, and sale of PFAS in cosmetics by 2026-2028.
- Japan: Regulatory updates under the Chemical Substances Control Law further limit PFAS in specific industrial applications.

Manufacturers must closely monitor and align with these evolving restrictions to ensure continued market access.

## 09. Webinar Q&A

During the live webinar, numerous questions were sent in by our engaged audience. Our webinar presenter Juliana Kecerová has provided expert answers to the most popular queries below.

**Q) Is a draft of the streamlined PFAS reporting report available for review, so we can prepare the necessary data?**

*"As yet, there is no publicly available finalised report of the EU PFAS restrictions proposal. The process remains in the evaluation phase by ECHA RAC/SEAC committees, with the European Commission expected to adopt formal regulatory restrictions in late 2025. For the time being, we assume that the initial proposal and the ECHA committees' updates on their evaluation work may provide a foundation for anticipating data requirements.*

*You can track committee opinions via [ECHA PFAS restriction page](#)"*

**Q) EU: concerning these new deadlines on metal alloys, do you know of any new Exemption Request entries at the Oeko Institute by the metal alloy associations as has happened before to counteract against these due dates?**

*"No, we are not aware of any new exemption requests related to the proposed new metal alloy exemption deadlines."*

**Q) I received information that the Chinese standard SJ/T 11364 will be replaced with the 2024 edition on April 1, 2025. Can you provide more details beyond the addition of four phthalates?**

*"Yes - GB/T 26572 and SJ/T 11364 have been accorded mandatory status by the Administrative Measures (Order No. 32, 2016).*

*In practice however they are often questioned by enterprises, who are of the view that these are essentially recommended standards that cannot be enforced.*

*This is one reason why the Ministry is now integrating the two standards - so it can designate them as unambiguously mandatory, and thereby provide a more solid basis for law enforcement by industry authorities, customs and other departments."*

**Q) How can it be demonstrated that coated parts will not exceed the release rate of 0.05 µg/g/h? Are there any recommended analytical methods?**

*"I'm afraid, Compliance and Risks cannot answer this. In general, it's a combination of material analysis, testing, and documentation, however this question is more suitable for a testing lab."*

**Q) Are there any additional delays expected for the TSCA PFAS submission deadline?**

*"Submission period for all reporters submitting information starts on July 11, 2025. Most reporting entities would be required to complete all reporting by January 11, 2026. To the best of our knowledge, there are no additional delays."*

**Q) Have there been any updates to the labeling requirements for non-catalogued electrical and electronic products under China RoHS?**

*"Non-catalogued EEPs must meet the labelling requirements as revised by SJ/T 11364-2024 by 1 January 2026 at the latest. Table A.1 List of Hazardous Substances in Electrical and Electronic Products of SJ/T 11364 has been supplemented with 4 phthalates, and so these must be considered when indicating the presence of hazardous substances through the provision of a hazardous substance content table, and also labelling the product with the EFUP/EPUP."*

**Q) Are there any restrictions on PVDF in solar panels, or any available information on PFAS regulations related to it?**

*"There is no publicly available finalised report of the EU PFAS restrictions proposal. The process remains in the evaluation phase by ECHA RAC/SEAC committees, with the European Commission expected to adopt formal regulatory restrictions in late 2025. For the time being, we assume that the initial proposal and the ECHA committees' updates on their evaluation work may provide a foundation for anticipating data requirements. There is certainly a push for industries that use PVDF to look for alternative materials."*

You can track committee opinions via ECHA PFAS [restriction page](#)"





## 10. Conclusion

The regulatory landscape for electronic components is rapidly evolving, with stricter controls on hazardous substances and increased transparency requirements

From amendments to RoHS directives to the expansion of PFAS regulations, the industry must remain vigilant and adaptable. Proactive compliance, coupled with the use of robust compliance solutions and expert support, is the key to navigating this complex landscape successfully.

By embracing these strategies, companies can not only ensure regulatory compliance but also foster innovation, maintain market access, and achieve sustainable growth in the electronic components industry.

Empower your business today - begin your journey and [speak to a regulatory expert](https://complianceandrisks.com).



## 12. Ask Our Experts

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