POSITION PAPER

17 March 2026

JBCE RESPONSE TO THE CALL FOR EVIDENCE FOR RESTRICTING THE USE OF CERTAIN NON-POLYMERIC AROMATIC BROMINATED FLAME RETARDANT

INTRODUCTION

As a cross-sector association with member companies of Japanese parentage operating in different industries and stages in the supply chain (electronics, chemicals, polymer, automotive, machinery, semiconductor, wholesale trade, precision instruments, pharmaceutical, steel, nonferrous metal, textiles, ceramics, and glass products), the Japan Business Council in Europe (JBCE) welcomes the opportunity to contribute to the call for evidence for restricting the use of certain non-polymeric Aromatic Brominated Flame Retardants (ABFRs).

KEY MESSAGES

1. Requirements against flammability by other EU legislation

Flame retardancy performance is directly related to the safety of Electric and Electronic Equipment (EEE). Therefore, strict requirements related to material flammability and fire safety are set out in harmonised standards[1] supporting EU product safety legislation, including the Low Voltage Directive 2014/35/EU[2], Machinery Regulation (EU) 2023/1230[3], Medical Devices Regulation (EU) 2017/745[4] and the In Vitro Diagnostic Medical Devices Regulation (EU) 2017/746[5].

For internal parts like printed wiring boards (PWBs) and connectors, as well as for cables, particularly high demands on flame resistance are legally applicable. According to currently available information, no alternative substances with equivalent performance to ABFRs exist for these applications. Additionally, if alternatives that meet the harmonised standards are not available in sufficient quantities to meet the global market/supply chain, it will be impossible to manufacture EEE that meet the harmonised standards and CE marking requirements and comply with relevant mandatory restrictions.

[1] For the list of harmonised standards see Appendix.
[2] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0035
[3] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32023R1230
[4] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32017R0745
[5] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32017R0746

It is also important to ensure that the restriction is consistent with other EU legislation, such as the RoHS Directive[6], WEEE[7], the POPs Regulation[8]. Considering that the EU Eco-Design Regulation (EU) 2019/2021[9] already applies requirements for halogenated flame retardants to display exteriors and stands, a derogation for internal parts and cables should be considered. If the restriction does not align with existing EU legislation, it will lead to confusion in the EU market.

2. Need for a Sufficient and Category-Specific Transition Period

Under Restriction Option 1, it is assumed that the restrictions enter into force in January 2030 and the ban applies after a transition period of 18 months. While an 18-month transition period may be effective for restricting chemicals, it is too short for restricting articles, especially complex articles such as EEE.

Even if alternative flame retardants exist today, tests must be performed to ensure whether final products with new flame retardants fulfil all safety requirements of applicable EU legislation mentioned above. If the performance is not sufficient, some products can be redesigned. In the case that no alternative flame retardants are available, long transitional periods and even exemptions for certain applications, internal parts and cables are required.

If the transition period is too short, some EEE with high-safety requirements (non-exhaustively including RoHS Category 8 and 9 products) will no longer be able to comply, and these EEE will no longer be placed on the EU market. For example, if analytical/monitoring devices or medical devices (RoHS category 8 and 9) were not placed on the EU market, it would have a negative impact on the health of EU citizens, the environment, and infrastructure.

As four new substances (phthalates) were introduced as new restricted substances in the Amending Delegated Directive (EU) 2015/863 of the RoHS Directive, a transition period of approximately six years was given for Category 8 and 9 products and approximately four years for the products of the other categories. At that time, industry was able to comply with this timeline. Therefore, JBCE proposes to apply a similar transition period, depending on category, from the time point when alternative flame retardants are widely available on the market. In addition, it is very important to give exemptions for some applications which need a longer transition period or where substitutions are technically not yet possible, like the RoHS exemptions. It is also necessary to introduce a system that allows for these exemptions to be extended in case there is no technical solution available.

[6] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02011L0065-20250101
[7] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02012L0019-20240408
[8] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02019R1021-20260101
[9] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02019R2021-20210501

3. Position on Restriction Option 2 (RO2) and Restriction Option 3 (RO3)

JBCE supports science-based regulation targeting substances with confirmed risk properties in accordance with the structured and staged framework of REACH. It is important to maintain this risk-based approach rather than regulating ABFRs solely on the basis of hazards, because if they are safely embedded into products, they usually do not pose any risk to end users.

However, at this stage, JBCE cannot support Restriction Options 2 or 3. REACH establishes a structured and staged regulatory framework. Substances of very high concern are first identified under Article 57 and included in the Candidate List. Only after further assessment is the most appropriate risk management option determined, whether authorisation (Annex XIV) or restriction (Annex XVII).

This staged process ensures that regulatory measures are grounded in confirmed scientific evidence and are proportionate to the identified risk. A proportionate, evidence-based and legally predictable approach remains essential to safeguard environmental objectives while maintaining regulatory coherence and fire safety performance.

RO2 proposes extending the restriction to 19 additional substances primarily on the basis of structural similarity and screening indications of potential Persistent, Bioaccumulative, and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) properties. At present, none of these substances has been identified as substance of very high concern (SVHC), nor have them been conclusively determined to meet PBT or vPvB criteria.

Imposing market restrictions without confirmed hazard identification and without completing the established regulatory steps under REACH risks undermining the staged and evidence-based structure of the Regulation. Structural grouping and predictive models are appropriate for prioritisation, but cannot replace substance-specific scientific confirmation when applying binding market restrictions.

RO3 foresees automatic inclusion of additional substances once harmonised PBT or vPvB classification is adopted in the future.

Where a substance is identified as PBT or vPvB, the established REACH pathway — including SVHC identification and evaluation of the most appropriate risk management measure — should be followed prior to restriction. Automatic extension mechanisms risk circumventing this staged assessment and raise concerns regarding proportionality and legal certainty.

Under Article 68 in REACH, restrictions must address an unacceptable risk and be proportionate, taking into account socio-economic impacts. The expansion of restrictions without confirmed hazard identification and comprehensive impact assessment would create significant uncertainty and disruption across supply chains.

EEE manufacturers have been working to collect information on which components contain which chemicals, based on information provided by parts suppliers. The number of parts

using brominated flame retardants is significantly larger than that of equipment using Dechlorane Plus and Medium-Chain Chlorinated flame retardants (MCCP). A rough estimate shows that it will be more than ten times larger, with 1,1'-(ethane-1,2-diyl)bis[pentabromobenzene] (DBDPE, CAS: 84852-53-9) being the most commonly used. For example, despite efforts to reduce Dechlorane Plus through the supply chain over the past several years, issues such as malfunctions with alternatives and unexpected applications were faced just before the date of application of the POPs Regulation. While these were unforeseen even for the EEE equipment manufacturers using them, it is considered inevitable that restrictions on brominated flame retardants will affect the industry more than Dechlorane Plus or MCCP and lead to a certain degree of confusion regardless of the option chosen. Both authorities and industry must engage in thorough preparations.

4. Category Approach – the Example of the ROHS Directive

A “One-Size-Fits-All” solution does not work for restrictions of chemicals in EEE as a whole. Therefore, restrictions should be introduced per individual category.

In the case of products covered by categories 8 and 9, the RoHS Directive provides for longer transition periods because of their special characteristics: strict requirements regarding their safety, robustness and reliability, longer lifetime, important for social infrastructure, few design changes, etc.

As mentioned above, flame retardants play a crucial role in EEE safety by preventing fires. Measuring devices (category 9) operate at around 100-240 V AC; however, the input may be high voltages and large currents. These devices must be fire-resistant even when a large current is applied. This is a factor that differs from home appliances and other devices. Furthermore, some components in analytical devices are required to be both flame-retardant and chemical-resistant. It will take a long time to find an alternative material that meets both requirements for such components, as different combinations of chemicals must be tried before a replacement can be found. Such a factor must be considered for each RoHS category.

Furthermore, even within the same category, careful consideration must be given to the characteristics of equipment types. For example, heating and cooling equipment using refrigerants in Category 1 is increasingly using higher flammability refrigerants; therefore, special measures must be taken into account.

5. Derogation for spare parts

Flame retardants serve critical safety functions in preventing fire propagation. Substitution requires redesign, requalification and recertification, particularly in sectors with long development cycles, such as medical and analytical devices.

The RoHS Directive guarantees the “repair as produced” principle. JBCE strongly believes that this principle should also be introduced for the restriction of non-polymeric aromatic brominated flame retardants.

Spare parts for EEE placed on the market for the first time (as defined in Blue Guide “placing on the market”) before the implementation of the restriction should be excluded from the restriction until the end of the lifetime of the device. If spare parts are not exempted, the lifetime of EEE will be shortened. Consequently, the volume of waste of EEE will rapidly increase, which is undesirable from the viewpoint of circular economy.

6. Ensuring re-use of products

Under the RoHS Directive, products which are placed on the EU market for the first time (as defined in the Blue Guide as “placing on the market”) before restrictions become applicable are allowed to be placed on the market (as defined in the Blue Guide as “making available on the market”), so that resale of these products remains possible.[10] They may remain on the market even after having undergone secondary market operations. JBCE strongly believe that the introduction of this principle to this restriction in order to accelerate re-use of EEE aligns with the EU’s current circular economy strategy.

7. Traceability in Complex Supply Chains and the 0.1% Threshold

There are established systems to trace chemicals over entire complex supply chains all over the world. It would be efficient to use these systems for this restriction for EEE. Additionally, the chemical traceability systems commonly use the threshold of 0.1% to collect information on chemicals. Therefore, JBCE supports setting the threshold at 0.1%.

ABOUT JBCE

Founded in 1999, the Japan Business Council in Europe (JBCE) is a leading European organisation representing the interests of over 110 multinational companies of Japanese parentage active in Europe. Our members operate across a wide range of sectors, including information and communication technology, electronics, chemicals, automotive, machinery, wholesale trade, precision instruments, pharmaceuticals, textiles, and glass products.

For more information: https://www.jbce.org/ / E-mail: info@jbce.org

EU Transparency Register: 68368571120-55

[10] RoHS FAQ Q.2.3. Synopsis of Questions to be Answered 20

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Appendix

Non-exhaustive List of Harmonised Standards related to flame retardancy

Standards for final (assembly) products	
EN 60950-1:2006+2013	Information technology equipment – Safety – Part 1: General requirements
EN IEC 62368-1:2024	Audio/video, information and communication technology equipment –Part 1: Safety requirements
EN 60204-1:2018	Safety of machinery. Electrical equipment of machines. General requirements
EN 60204-33:2011	Safety of machinery - Electrical equipment of machines - Part 33: Requirements for semiconductor fabrication equipment
EN 61010-1:2010+2019	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements
EN 60601-1:2006+2021	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
Standards for modules	
EN IEC 60947-1:2021 Other 60947 series	Low-voltage switchgear and controlgear - Part 1: General rules
EN 61810-1:2015+2019	Electromechanical elementary relays - Part 1: General and safety requirements
EN IEC 61496-1:2020	Safety of machinery — Electrosensitive protective equipment Part 1: General requirements and tests
EN IEC 61800-5-1:2023	Adjustable speed electrical power drive systems – Part 5-1: Safety requirements – Electrical, thermal and energy
EN 60309-1:1999+2012	Plugs, socket-outlets and couplers for industrial purposes - Part 1: General requirements
Standards for parts	
EN IEC 61058-1:2018	Switches for appliances - Part 1: General requirements
EN IEC 61558-1:2019	Safety of transformers, reactors, power supply units and combinations thereof - Part 1: General requirements and tests
EN IEC 60691:2023	Thermal-links - Requirements and application guide
EN 60730-1:2016+2022	Automatic electrical controls - Part 1: General requirements
EN 60664-3:2017	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution
Standards for fire test	

EN 60332 series EN(IEC) 60332-1-1,2,3 EN(IEC) 60332-2-1,2 EN(IEC) 60332-3-10,21	Tests on electric and optical fibre cables under fire conditions
EN 60332	Tests on electric and optical fibre cables under fire conditions
EN 60332-1-2:2004+2015	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame
EN 60332-2-2:2004	Tests on electric and optical fibre cables under fire conditions - Part 2-2: Test for vertical flame propagation for a single small insulated wire or cable - Procedure for diffusion flame
EN 60695-11-10:2013	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods
EN IEC 60695-11-20:2021	Fire hazard testing - Part 11-20: Test flames - 500 W flame test method
IEC/TS 60695-11-21:2005	Fire hazard testing - Part 11-21: Test flames - 500 W vertical flame test method for tubular polymeric materials
EN IEC 60695-2-10:2021	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure
EN IEC 60695-2-11:2021	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT)
EN IEC60695-2-12:2021	Fire hazard testing - Part 2-12: Glowing/hot-wire based test methods - Glow-wire flammability index (GWFI) test method for materials
EN IEC60695-2-13:2021	Fire hazard testing - Part 2-13: Glowing/hot-wire based test methods - Glow-wire ignition temperature (GWIT) test method for materials
EN 61189-3:2008	Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 3: Test methods for interconnection structures (printed boards)