

Comments on the recast of the Persistent Organic Pollutants (POPs) Regulation Preserving state of the art plastics recycling from WEEE and ELVs in Europe

In view of the ongoing negotiations in the European Parliament and the Council on the [Recast of the POP Regulation](#), EuRIC¹ is pleased to share the following comments focusing on the proposal to set up unintentional trace contaminant (UTC) limits for brominated flame retardants (BFRs), also called POP-BDEs listed in Annex I. **We urge the Council to take into consideration these comments during the trilogue negotiations which are vital to preserve state of the art plastics recycling from waste electrical and electronic equipment (WEEE) and end of life (ELV) vehicles in Europe while supporting high environmental standards.**

Massive environmental benefits of plastics recycling in Europe

Plastics are widely used in everyday life appliances such as packaging products, electrical and electronic equipment (EEE) or in cars. Plastics recycling is not only resource efficient by saving virgin materials, namely oil, it is also climate and energy efficient. **For example, recycling 1 million tons of plastics would save CO₂ emissions equivalent to taking 1 million cars off the road².** In addition, plastics recycling requires on average only 10 % of the energy needed to produce virgin plastics from oil.

Facts about brominated flame retardants (BFRs) in plastics from WEEE and ELVs and REACH restriction

Flame retardants have been widely used over the last decades in plastics of EEE and vehicles, to meet fire safety standards. Some of these flame retardants are brominated and are embedded in the matrix of the plastics of EEE and vehicles. A small number of these BFRs (tetra, penta, hexa, hepta and decaBDE, HBCD) are restricted under RoHS and REACH. These restrictions and bans have been ongoing since 2004. **This means that EEE and vehicles reaching end-of-life (WEEE, ELVs) today still contain them as legacy substances.**

The Commission adopted, in 2017, a [REACH](#) restriction setting a limit for the level of decaBDE of **1000ppm in articles placed on the EU market**. ECHA's scientific committees have concluded that this concentration limit of 1000 mg/kg was suitable *"to enhance the enforceability of the restriction [and] analytical methods to verify concentration are well established"*.³ Indeed, the only existing standard - [EN 62321-3-1:2014 \(Determination of certain substances in electrotechnical products\)](#) putting forward a method to quantify the concentration of total bromine is validated for a concentration of 1000ppm. **There is no validated measurement method which can be used at industrial scale for concentration limits lower than 1000ppm for total bromine.**

State of the art plastics recycling from WEEE and ELVs in Europe contributing to non-toxic material cycles

Over the last years, European plastics recycling companies have pioneered the development of technologies to recover complex plastics from WEEE and ELVs and advanced separation techniques to sort and eliminate plastics containing BFRs, so that the recycled plastics meet the concentration limits set in EU and international standards to protect human health and the environment. **By recycling complex plastics from long-life appliances such WEEE or ELVs, European recyclers directly contribute to non-toxic material cycles and speed up their phase-out from society.** For example, TV housings typically contain as much as 150 000 ppm of BFRs⁴. State of the art separation and treatment processes in recycling plants allows for the removal and destruction of the brominated plastic fractions to reach concentration limits below 1,000ppm (1000 mg/kg), in line with the REACH restriction.

¹ Through its Member Recycling Federations from 20 EU and EFTA countries, [EuRIC](#) represents today over 5,500+ companies generating an aggregated annual turnover of about €95 billion for 300,000 non-outsourceable local jobs by recycling million tons of waste recycled / year including metals, plastics or paper from household, industrial and commercial waste streams, WEEE, ELVs.

² Plastics Strategy of the European Commission. Figure stemming from a study made by FEDEREC together with ADEME.

³ RAC and SEAC opinion: <https://echa.europa.eu/documents/10162/b5ac0c91-e110-4afb-a68d-08a923b53275>

⁴ Norwegian Environment Agency, Oslo - Literature Study – DecaBDE in waste streams – 2015/10094

Brominated flame retardants in nature or in products such as toys where they should not be found

Products, like toys, containing traces of decaBDE have most likely been produced in Asia, where it is very unlikely that the value chains importing them onto the EU market have applied the rigorous EN71 Product Safety standards. **Structural deficiencies in the enforcement of REACH and other EU product legislations on imports lead to situations whereby such products are put on the EU market without being compliant.** Also, taking into account the high melting point of decaBDE between 290 to 306°C⁵, the majority of decaBDE found in nature is more likely to come from open burning of WEEE in Asia and Africa to remove plastics and recover valuable metals, than from recycling activities.

European companies recycling plastics from WEEE and ELVs are not allowed to sell REACH compliant recycled plastics for food contact packaging or toys simply because they do not meet standards which are specific to these uses, such as standard EN 71-3⁶. To the contrary, they are exclusively sold for fully-permitted end-uses (for example, to mould new plastics components of EEE or cars) and comply with environment, health and safety standards as well as mechanical properties for these end-uses.

Concentration limit value for decaBDE in the recast of the POP Regulation

The Commission proposal to recast the POP Regulation did not contain any unintentional trace contaminant (UTC) limits for decaBDE simply because work done under the Basel and Stockholm Conventions is ongoing.

The amendments to the original proposal from the European Commission adopted by the European Parliament will put an end to plastics recycling from WEEE and ELVs in Europe if unchanged during the trilogue negotiations. We are particularly concerned by the inclusion of decaBDE in Annex I, with a concentration limit of 10 ppm (i.e. 100 times lower than the threshold set by the REACH restriction). Since none best performing companies recycling plastics from these streams will be able to meet such a threshold, the negative consequences will be:

- **A de facto ban of plastics recycling of most WEEE and ELVs components currently processed by leading plastics recycling companies operating in Europe, which will have to close.** This will have massive socio-economic impacts as recycling creates on average 30 times more jobs than landfill or incineration⁷.
- **Recycling targets under the ELV and WEEE Directives can no longer be met.**
- **Greatly increased export of plastics waste outside of Europe which is then poorly recycled, in the absence of restrictions applicable on decaBDE, back into products such as toys, then re-imported into Europe.**
- **Increase the share of plastics landfilled or incinerated, which is neither a resource efficient solution nor an environmentally sound alternative because of their negative cross media effects.** In some Member States, it is strictly forbidden to landfill organic materials, including plastics. The incineration capacity is not sufficient to deal with higher volumes, meaning that **exports of plastics waste from WEEE and ELVs outside Europe with much lower recycling standards will be in most instances the only option left.**

To preserve state of the art plastics recycling from WEEE and ELVs in Europe while strengthening environmental standards, **EuRIC urges the Member State representatives involved in the trilogue negotiations to:**

- **Aim for a concentration limit of 1000 ppm for the sum of tetra, penta, hexa, hepta and decaBDE in the Annex I of the POP Regulation, which is the only concentration which can currently be reliably measured and implemented;**
- **Refrain from setting a Low POP Content Limit (LPCL) value under Annex IV for decaBDE, to avoid pre-empting the work done at Basel Convention level.**

Referring to the **position adopted by the Austrian Presidency of the Council**, should the concentration limit of 500ppm for the sum of PBDEs in Annex I be ultimately adopted, EuRIC strongly suggests to the Member State representatives involved in the trilogue negotiations to **introduce a transition period of 5 years** for this requirement to enter into force. This is needed for several reasons, the main one being the fact that the existing standard (EN 62321) is validated to measure 1000 ppm at the lowest, and would need to be adapted.

⁵ Technical Factsheet – US EPA, November 2017

⁶ EN 71 on Safety of Toys. EN 71 – 3 specifically deals with migration of certain elements from materials

⁷ Increased EU Plastics Recycling Targets: Environmental, Economic and Social Impact Assessment, Report of Bio by Deloitte for Plastics Recyclers Europe, May 2015.