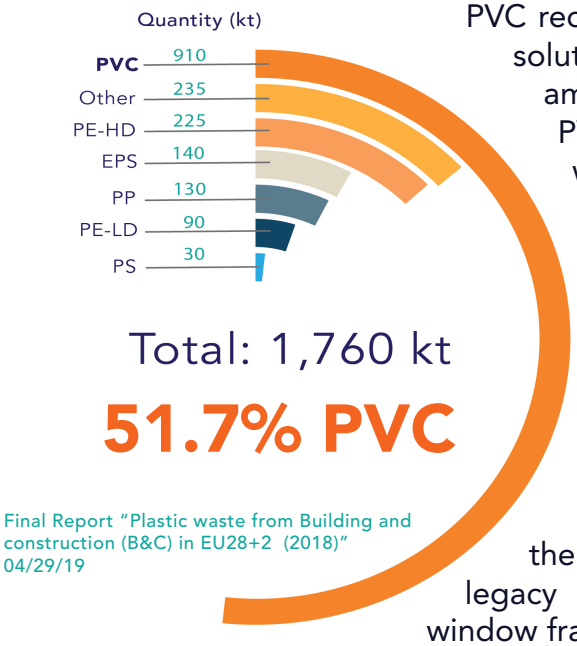
Safeguarding safe PVC Recycling in Europe
EuRIC statement on the proposed Regulation restricting the content of lead in PVC

7 May 2020

EuRIC is the umbrella organisation for recycling industries in Europe. The European Plastics Recycling Branch (EPRB) of EuRIC, which counts among its Members recyclers of PVC from building and construction waste, entirely supports the position of Vinylplus in relation to the proposed Regulation restricting the content of lead in PVC[1]. While we take note of the European Parliament objection to the Commission's proposal to derogate recycled articles from the restriction on lead in PVC[2], a proposal without such a derogation framed by strict conditions, as proposed by ECHA, would put an end to quality recycling in Europe of PVC containing legacy lead from building and construction with far-reaching consequences on the environment, given the negative footprint of alternatives. The socio-economic impacts, for no benefits for human health and the environment from a risk management standpoint, would be disastrous for the European PVC recycling industry and the entire PVC value chain which, through Vinylplus, is a frontrunner for the circular economy since 2000. From a broader perspective, EuRIC supports science-based risk assessments as the soundest approach for dealing with legacy substances and further increase the safety of circular value chains.



Final Report "Plastic waste from Building and construction (B&C) in EU28+2 (2018)" 04/29/19

PVC recycling plays a key role by providing the most circular solution for end-of-life PVC articles and a substantial amount of direct and indirect non-outsourceable jobs. PVC is widely used in construction products, such as window-frames, given its well-documented benefits in terms durability, energy savings thanks to excellent thermal insulation properties and easy maintenance. PVC represents more than 50% of plastics waste from building and construction. As a result, the PVC and the recycling industries have heavily invested over the last twenty years to recycle lasting construction products made of PVC. Lead-based stabilizers have been substituted by other stabilizers since 2015 as part of the PVC industry voluntary commitment. Yet, given the lasting nature of construction products, lead is a legacy additive found in construction products, including window frames, reaching end of life.

Strict conditions to ensure safe recycling and use of PVC containing legacy lead along the value chain

The European Chemical Agency (ECHA) has confirmed that the recycling of end-of-life PVC products with legacy lead additives is the best waste management option from both an environmental and human health point of view, be it in terms of risk management, resource efficiency and climate mitigation since for each kilo of PVC recycled, two kilos of CO_2 are saved. It also creates more jobs in Europe than anyother end-of-life option[3].

1. COMMISSION REGULATION (EU) No …/.. of XXX amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards lead and its compounds.

2. European Parliament resolution of 12 February 2020 on the draft Commission regulation amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards lead and its compounds (D063675/03 – 2019/2949(RPS))

3. VinyPlus Progress report, 2018. Downloaded from: https://vinylplus.eu/

The recycling industry is able to recycle PVC containing legacy lead meeting the strict conditions of the derogation proposed by the Commission to address the risks of lead migration, on the basis of the in-depth assessment made by the European Chemicals Agency (ECHA)[4], namely with a concentration limit for lead in articles containing recycled PVC of up to 1% for soft PVC and up to 2% for rigid PVC.

The derogation, based upon ECHA's Risk Assessment Committee (RAC) evaluation, is limited to articles produced from PVC recyclate with legacy lead for which there is no risk of leaching into the environment or, in case of a such minimal risk, the obligation to ensure that the PVC recyclate is not used in the external layer of the product to completely prevent lead release. This derogation was robustly assessed by RAC, thanks to data from standardised leach tests and observational field data, which allowed to determine the article types currently produced using PVC recyclate which could be derogated under strict conditions.

Substantial negative environmental and socio-economic impacts without a strictly framed derogation

Alternatives to recycling, namely incineration or landfilling PVC would negate the circular economy by wasting valuable materials and increasing emissions to the environment without reducing any risks.

In practice, the absence of derogation for PVC containing legacy lead would prohibit recycling. It would force to dispose of end-of-life products either in incineration or landfills, including, for example, pipes and fitting, which pose no risk for lead leachate (0%) along the 100 years of their service life and amount up to 100 kt of waste per year[5]. Such a solution would be entirely sub-optimal. Setting aside capacity issues, PVC articles containing legacy lead disposed in landfill would be more exposed to weather factors and, over time, some lead will be released into the environment. The additional end-of-life PVC articles that would be incinerated would increase the releases of lead into air and water from waste incinerators. It has been demonstrated that levels of lead in plant leaves often correlate with atmospheric concentrations[6] and thus the subsequent entry of lead into the food chain which impacts public health. On the contrary, enabling the recycling under strict conditions set up by the proposed derogation would mitigate these risks and contribute to positive environmental (CO_2 savings) and socio-economic benefits for Europe.

Last but not least, future alternatives based on new technologies which may enable to remove legacy additives from PVC are so far still under test phase and require several years of development without any certainty as of today that they will reach the stage of industrial maturity.

4. ECHA's Annex XV restriction report https://echa.europa.eu/documents/10162/fa538cf2-82dc-3767-1e6e-0db836e55788
5. Bipro, 2015. Study to assess the possibility of granting a derogation given to specific types of plastics&rubber waste in the EU waste list
6. Kabata-Pendias A and Mukherjeee A (2007). Trace elements from soil to human. Springer.