



2025/660

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**COMMISSION REGULATION (EU) 2025/660**

**of 1 April 2025**

**amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council as regards polycyclic aromatic hydrocarbons (PAHs) in clay targets**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC <sup>(1)</sup>, and in particular Article 68(1) thereof,

Whereas:

- (1) Many polycyclic aromatic hydrocarbons ('PAHs') are hazardous substances due to their carcinogenic, persistent, bioaccumulative and toxic (PBT) and/or very persistent, very bioaccumulative (vPvB) properties. To protect the environment and human health, Annex XVII to Regulation (EC) No 1907/2006, entry 50 of REACH limits the PAH content in several mixtures for their use or placing on the market and in certain articles for their placing on the market. PAHs are also present in some products used as binders in clay targets (also known as clay pigeons). Clay targets are flying (saucer-shaped) targets used by sports shooters and small game hunters to practice. They are produced using binders such as coal tar pitch, high temperature ('CTPHT'), petroleum pitch or other types of resins. At least 270 tonnes of PAHs per year are estimated to be released to the environment during the production and use of PAHs-containing clay targets. The continued use of clay targets containing PAHs will lead to an increasing environmental load, and to further environmental and human exposure. Since PAHs are PBT and vPvB substances, the effects of the accumulation in the environment are unpredictable in the long term. Therefore, the characterisation of the emissions serves as a proxy for the risks.
- (2) CTPHT is identified as a substance of very high concern due to its carcinogenic, PBT and vPvB properties and it is included in Annex XIV to Regulation (EC) No 1907/2006. Those properties are due to the presence of PAHs in CTPHT. The Commission has rejected the applications for authorisations submitted for the use of CTPHT as a binder in the production of clay targets with Decisions C(2022)1510 <sup>(2)</sup> and C(2022)1512 <sup>(3)</sup>. The authorisation requirement does not apply to the placing on the market of substances in articles, and concerns raised as regards release of PAH from clay targets equally apply to those containing CTPHT imported into the Union.
- (3) In addition, several alternatives to CTPHT currently used as binder for clay targets in the Union also contain PAHs, although generally having lower concentrations of PAHs than CTPHT. Alternatives with very low PAH content and PAH-free alternatives are also available.
- (4) To ensure a high level of protection in the Union and to avoid regrettable substitution, the Commission asked on 2 July 2021 <sup>(4)</sup> the European Chemicals Agency ('the Agency') pursuant to Article 69(1) of Regulation (EC) No 1907/2006 to prepare an Annex XV restriction dossier on PAHs in clay targets for shooting.

<sup>(1)</sup> OJ L 396, 30.12.2006, p. 1, ELI: <http://data.europa.eu/eli/reg/2006/1907/oj>.

<sup>(2)</sup> OJ C 130, 23.3.2022, p. 8.

<sup>(3)</sup> OJ C 130, 23.3.2022, p. 7.

<sup>(4)</sup> [https://echa.europa.eu/documents/10162/17233/rest\\_ctpht\\_mandate\\_en.pdf/6ca115c7-d892-1c27-3329-6d0e4ab34b87?t=1628765272700](https://echa.europa.eu/documents/10162/17233/rest_ctpht_mandate_en.pdf/6ca115c7-d892-1c27-3329-6d0e4ab34b87?t=1628765272700).

- (5) On 22 December 2021, the Agency published the Annex XV dossier <sup>(5)</sup> where it concluded that a Union-wide action to address the risks associated with clay targets with PAH-containing binders produced in the Union or imported is needed to ensure a harmonised high level of protection of human health and the environment across the Union and to ensure the free movement of goods within the Union. The efficient functioning of the internal market can be achieved only if requirements do not differ significantly between Member States, while Austria, parts of Belgium and the Netherlands already have restrictions in place.
- (6) The Agency proposed that a concentration limit of 0,005 % by weight of dry mass of the clay target for the sum of 18 indicator PAHs should not be exceeded in clay targets placed on the market. The Agency additionally proposed to restrict the use of these clay targets, in order to prevent releases from clay targets placed on the market before entry into force of the restriction <sup>(6)</sup>. As there are many different PAHs and their presence in the binders is variable, it is practical to base the conditions of the restriction on the concentration of a suite of measurable and well-known PAHs that serve as indicators for the presence of other PAHs. Consequently, limiting the concentration of these 18 indicator PAHs in clay targets also limits the concentration of other PAHs in clay targets. The Agency considered four possible concentration limits and concluded that a limit of 0,005 % is the preferred option based on its effectiveness to reduce over 99 % of the PAH releases, and the availability of alternatives. A concentration limit of 0,005 % for the sum of the 18 indicator PAHs would not allow CTPHT, petroleum pitch and petroleum resin as binder in clay targets. To facilitate the practicality of the restriction, the suite of indicators is aligned with existing rules of the International Sport Shooting Federation (ISSF) for clay targets used in their competitions, which impose a concentration limit of 0,005 % by weight of dry mass of the clay target for the sum of the 18 indicator PAHs.
- (7) The Agency proposed a transitional period of one year after the entry into force of the restriction during which the production and use of clay targets with a PAH concentration of up to 1 % by weight of dry mass of the clay target is allowed. The Agency deemed such a period necessary for avoiding a shortage of useable clay targets in the Union, by giving producers time to find new suppliers for low PAH content binders and to implement any adjustments to their production processes. In practice, this would mean that the placing on the market or use of clay targets with CTPHT as a binder would not be possible from the entry into force of the restriction as these clay targets contain a higher PAH content. Continued use of CTPHT as a binder in clay targets during a one-year transitional period would lead to a release of 114 tonnes of the PAHs and would have no or limited economic benefits as similarly priced alternative binders are already available. In addition, Union producers have already ceased using CTPHT in clay targets.
- (8) On 13 September 2022, the Agency's Committee for Risk Assessment ('RAC') adopted its opinion concluding that the restriction proposed by the Agency is the most appropriate Union wide measure to address the identified risk in terms of the effectiveness in reducing the risk, practicality and monitorability. RAC noted that the information available on the releases of 18 PAHs to the environment provides a sufficient basis to conclude that current and potential future uses of clay targets containing PAHs lead to releases of substances with PBT, vPvB and carcinogenic properties to the environment. It also agreed with the Agency that occupational exposure, human exposure from the handling and shooting of clay targets and related human health (cancer) risk are, although not considered quantitatively, supporting evidence to justify the need for a restriction. RAC noted that the ongoing releases of PAHs from clay target binders into the environment will result in long-term human and environmental risks due to exposure to PAHs. RAC agreed that the proposed restriction would be the most effective risk management measure to reduce releases of and exposure to PAHs from clay targets containing PAHs. RAC agreed that there is no justification for derogations. Additionally, in line with the approach taken by the Agency, RAC agreed that the restriction should be based on a concentration limit of 0,005 % by weight of dry mass of the clay target for the selected 18 indicators PAHs, which would reduce about 99 % of the PAH emissions.

<sup>(5)</sup> <https://echa.europa.eu/documents/10162/ca0e70c1-db56-5d5f-55e1-76668c2d9623>.

<sup>(6)</sup> ECHA (2022). Background Document to the Opinion on the Annex XV dossier proposing restrictions on Substances containing polycyclic aromatic hydrocarbons (PAHs) in clay targets for shooting <https://echa.europa.eu/documents/10162/1cbc7e0f-4d6e-f8dd-cea2-0d32781281b2>.

- (9) RAC agreed with the Agency that setting an interim concentration limit for 18 indicator PAHs of 1 % by weight of dry mass of the clay target would prevent the use of CTPHT as a binder in clay targets, but temporarily allow other binders containing PAHs. However, RAC noted that the proposed one-year transitional period could lead to an additional release of at least 150 tonnes of the 18 indicator PAHs.
- (10) On 2 December 2022, the Agency's Committee for Socio-Economic Analysis ("SEAC") adopted its opinion. SEAC concluded that the proposed restriction is the most appropriate Union-wide measure to address the identified risks, taking into account its socioeconomic benefits and costs, provided that the conditions are modified as proposed by SEAC.
- (11) SEAC considered that the restriction could be implemented immediately without a transitional period under normal circumstances, but noted that the current trade sanctions against Russia might affect the short-term availability of some of the alternatives considered and, hence, instead of no transitional period, supported a one-year transitional period, in order to avoid the disruption of supply chains. However, SEAC disagreed with the Agency concerning the interim PAH concentration limit to be established during the transitional period. Taking into account the concerns on the short-term availability of eco- and natural resins due to the trade sanctions, SEAC considered an interim concentration limit for the 18 indicator PAHs of 0,1 % by weight of dry mass of the clay target during the one-year transitional period to be justified. Such concentration limit for the 18 indicator PAHs would, immediately, from the date of entry into force of the restriction, prohibit PAH concentrations in clay targets above that limit. In effect, this would prohibit the placing on the market and use of clay targets which do not comply with this concentration limit, with the consequence that CTPHT and petroleum pitch could no longer be used as binders in clay targets and would achieve a higher emission reduction compared to a concentration limit of 1 % by weight, as proposed by the Agency, at a similar cost.
- (12) SEAC agreed with the Agency that technically feasible alternative binders are available in the Union and that some of them would result in a higher cost for consumers in the order of a few euro cents per clay target, leading to total annual costs of EUR 3,4 million, both for the restriction option recommended by the Agency and that recommended by SEAC. SEAC agreed with the Agency that the benefits of this restriction are the avoided environmental emissions. SEAC estimated that the restriction option recommended by the Agency would result in avoided annual emissions of 257 tonnes, while the restriction option recommended by SEAC would result in avoided annual emissions of 266 tonnes.
- (13) The Agency's Forum for Exchange of Information on Enforcement, referred to in Article 76(1), point (f), of Regulation (EC) No 1907/2006, was consulted during the restriction process and its opinion has been taken into account.
- (14) RAC and SEAC noted the Forum's opinion that the restriction can be regarded as enforceable, provided that a specific analytical method is developed defining the necessary harmonised testing approach.
- (15) On 31 January 2023, the Agency submitted the opinions of RAC and SEAC<sup>(7)</sup> to the Commission. Taking into account the Annex XV dossier and the opinions of RAC and SEAC, the Commission considers that an unacceptable risk to human health and the environment arises from placing on the market and use of PAHs in clay targets for shooting, which needs to be addressed on a Union-wide basis.
- (16) The Commission considers that it is demonstrated that the restriction, on the placing on the market and use of PAHs on their own or as constituents of other substances in clay targets as proposed by the Agency, is the most appropriate Union-wide measure to address the identified risk, taking into account its socioeconomic impact and availability of alternatives.
- (17) The Commission considers that a concentration limit for the 18 indicator PAHs of 0,005 % by weight of dry mass of the clay target should apply because this concentration limit avoids approximately 99 % of the PAH emissions compared to the baseline, allows for sufficient alternative binders to be available and many clay target producers already produce clay targets that are in compliance with the proposed limit value in line with existing international sport shooting rules.

(7) <https://echa.europa.eu/documents/10162/5a8fcf33-9adc-d6cf-611e-019cc034af62>.

- (18) The Commission considers that all stakeholders should be allowed sufficient time to take appropriate measures, such as renegotiating supply contracts and disposing of existing stocks, to comply with the proposed restriction. The Commission considers this particularly important given that this measure restricts not only the placing on the market of the 18 PAHs in clay targets, as initially proposed in the Annex XV dossier, but also their use in clay targets. The application of this restriction should therefore be deferred by 12 months without any interim concentration limit. The Commission considers that this transitional period is also needed to avoid supply chain disruptions due to limited short-term availability of two types of alternative binders, which are used in clay targets and allow to comply with the concentration limit of 0,005 % by weight of dry mass of the clay target (eco- and natural resins), because of trade limitations concerning one of the major producers of these alternative binders.
- (19) Regulation (EC) No 1907/2006 should therefore be amended accordingly.
- (20) The measures provided for in this Regulation are in accordance with the opinion of the Committee established under Article 133 of Regulation (EC) No 1907/2006,

HAS ADOPTED THIS REGULATION:

*Article 1*

Annex XVII to Regulation (EC) No 1907/2006 is amended in accordance with the Annex to this Regulation.

*Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 1 April 2025.

*For the Commission*  
*The President*  
Ursula VON DER LEYEN

## ANNEX

In Annex XVII to Regulation (EC) No 1907/2006, the following new entry 50a is added:

<p>‘50a. Polycyclic aromatic hydrocarbons (PAHs)</p> <p>(a) Acenaphthene, CAS No 83-32-9, EC No 201-469-6</p> <p>(b) Acenaphthylene, CAS No 208-96-8, EC No 205-917-1</p> <p>(c) Anthracene, CAS No 120-12-7, EC No 204-371-1</p> <p>(d) Benzo[<i>a</i>]anthracene, CAS No 56-55-3, EC No 200-280-6</p> <p>(e) Benzo[<i>a</i>]pyrene, CAS No 50-32-8, EC No 200-028-5 (Benzo[<i>def</i>]chrysene)</p> <p>(f) Benzo[<i>b</i>]fluoranthene, CAS No 205-99-2, EC No 205-911-9 (Benzo[<i>e</i>]acephenanthrylene)</p> <p>(g) Benzo[<i>e</i>]pyrene, CAS No 192-97-2 EC, No 205-892-7</p> <p>(h) Benzo[<i>ghi</i>]perylene, CAS No 191-24-2, EC No 205-883-8</p> <p>(i) Benzo[<i>j</i>]fluoranthene, CAS No 205-82-3, EC No 205-910-3</p> <p>(j) Benzo[<i>k</i>]fluoranthene, CAS No 207-08-9, EC No 205-916-6</p> <p>(k) Chrysene, CAS No 218-01-9, EC No 205-923-4</p> <p>(l) Dibenzo[<i>a,h</i>]anthracene, CAS No 53-70-3, EC No 200-181-8</p> <p>(m) Fluoranthene, CAS No 206-44-0, EC No 205-912-4</p> <p>(n) Fluorene, CAS No 86-73-7, EC No 201-695-5</p> <p>(o) Indeno[1,2,3-<i>cd</i>]pyrene, CAS No 193-39-5, EC No 205-893-2</p> <p>(p) Naphthalene, CAS No 91-20-3, EC No 202-049-5</p> <p>(q) Phenanthrene, CAS No 85-01-8, EC No 201-581-5</p> <p>(r) Pyrene, CAS No 129-00-0, EC No 204-927-3</p>	<p>Shall not be placed on the market or used, on their own or as constituents of other substances, in clay targets for shooting from 22 April 2026 if they contain more than 50 mg/kg (0,005 % by weight of dry mass of the clay target) of the sum of all listed PAHs.’</p>
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