



# GB opinion on the renewal of the approval of a biocidal active substance

- Creosote
- Product type 8

**November 2025**  
**CM: 2025/168190**



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# Introduction

## Purpose of the document

This document presents the opinion adopted by the Health and Safety Executive (HSE).

This opinion is specific to the active substance creosote in product type 8 (PT8 – wood preservatives) for the possible renewal of the approval under [assimilated Regulation \(EU\) No 528/2012](#) of the European Parliament and of the Council concerning the making available on the market and use of biocidal products (GB BPR).

The renewal competent authority report (CAR), as a supporting document to the opinion, contains the full details and risk assessment used as grounds for this opinion.

## Roles

Regulation 5 of the [Biocidal Products and Chemicals \(Appointment of Authorities and Enforcement\) Regulations 2013](#) appoints competent authorities for the purposes of Article 81 of GB BPR. These are, respectively, the Secretary of State (as regards England), the Scottish Ministers (as regards Scotland) and the Welsh Ministers (as regards Wales).

HSE acts on behalf of the competent authorities through agency agreements which came into force on 12 February 2021.

Active substance approval decisions are subject to the consent requirements of Article 83B of GB BPR. The Secretary of State will take the decision on the renewal of creosote PT8, with the consent of the Scottish Ministers and the Welsh Ministers.

## Active substance details

**Substance name:** Creosote

**CAS number:** 8001-58-9

**EC number:** 232-287-5

**Product type:** 8

**Applicant:** Creosote Council Europe c/o REACH for Coal Chemicals (R4CC)

## Regulatory background and process

Creosote was first approved as an existing active substance in product type 8 for a period of 5 years under [Commission Directive 2011/71/EU](#) and included in Annex I of the Biocidal Products Directive ([Commission Directive 98/8/EC](#)) on 1 May 2013.

The renewal of the approval was requested by the Creosote Council Europe on 27 October 2016. HSE were the evaluating competent authority on behalf of the EU, until handing over to the new evaluating competent authority (Poland) due to the UK leaving the EU.

The UK left the EU on 31 January 2020 and began operating an independent regime for regulating biocides – GB BPR – following the end of the Transition Period on 31 December 2020. Under the transitional arrangements established by GB BPR, the Creosote Council Europe resubmitted their application for the renewal of creosote to HSE on 24 March 2021.

As creosote meets the exclusion criteria in Article 5(1) of GB BPR, the approval may only be renewed if any of the conditions in Article 5(2) are met. Additionally, creosote is a candidate for substitution under Article 10(1). Under Article 10(3) HSE must consult on candidates for substitution and gather information on the availability of suitable and sufficient alternatives.

HSE launched a consultation on 24 September 2024 to gather information on the availability of suitable and sufficient alternatives and to determine if the conditions in Article 5(2) are still satisfied for each of the proposed uses of creosote.

Creosote is a substance that is restricted under REACH.

Restrictions under REACH are measures for protecting human health and/or the environment from risks posed by chemicals on their own, in mixtures or in articles. REACH restrictions limit, ban or set conditions on the manufacture, placing on the market or use of a substance or group of substances.

The provisions for creosote are given in [Annex XVII](#) of [UK REACH regulation](#), see entry 31 (and summarised on the [HSE website](#)).

As a summary; the restriction permits creosote for specified industrial uses. Wood that has already been legally treated with creosote for industrial uses cannot be used in parks, gardens, playgrounds or certain outdoor facilities where there is a higher risk of skin contact. It also cannot be used inside buildings or for garden furniture or toys.

UK government departments were consulted on the final draft of this opinion in September 2025. Any substantial comments received will be summarised in the [Post UK government departments commenting](#) section.

## Intended uses

Creosote is a PT8 active used to prevent the destruction of softwood and hardwood by wood rotting fungi, soft rot fungi and wood destroying marine organisms. It is currently approved for use classes 3, 4 and 5. Creosote has antimicrobial, antifungal and insecticidal properties. Generally, the mode of action involves disrupting cellular processes and damaging cell membranes.

The uses considered for the renewal of approval are:

- Pressure impregnation: Preventive treatment of wood to be used as railway sleepers, agricultural fencing, equestrian fencing, industrial and highways fencing, environmental barriers, industrial landscape retaining timbers, cladding for non-residential buildings. Use class 3 (UC3) according to EN Standard 335.
- Pressure impregnation: Preventive treatment of wood to be used as wood poles for overhead electricity and telecommunication, foundation timbers for wood poles, agricultural fencing, equestrian fencing, industrial and highways fencing, hop poles, industrial landscape retaining timbers, tree support posts (fruit, vineyards). Use class 4 (UC4) according to EN Standard 335.
- Pressure impregnation: Preventive treatment of wood to be used for marine installations. Use class 5 (UC5) according to EN standard 335.
- Surface treatment: Treatment of creosote impregnated wood (UC3 and UC4) after modifications such as sawing, cutting, shaping and machining. Preventive treatment. Surface treatment only applies where there has been machining of pressure treated wood after treatment (normally all machining to be done before treatment).
- Hot and cold impregnation, non-pressure method: wooden posts (supports for vineyards and orchards as well as horticulture and landscaping applications: e.g. vineyard posts, fruit tree and tree support posts) UC4.

The specific use classes are defined as:

UC3: Situation in which the wood or wood-based product is not covered and not in contact with the ground. It is either continually exposed to the weather or is protected from the weather but subject to frequent wetting (e.g., cladding, fence rails).

UC4: Situation in which the wood or wood-based product is in contact with the ground (UC 4a) or fresh water (UC 4b) and thus is permanently exposed to wetting (e.g., fence posts, decking in contact with soil).

UC5: Situation in which the wood or wood-based product is permanently exposed to sea water (e.g., marine piling, dock gates).

# Summary of the competent authority report

The renewal competent authority report (CAR) is available [on the HSE website](#).

## Conclusions of the evaluation

### Exclusion, substitution, and POP criteria

Creosote meets the exclusion criteria laid down in [Article 5\(1\)\(a\)](#), (c) and (e) of GB BPR.

Creosote meets the conditions laid down in [Article 10\(1\)\(a\)](#), (d) and (e) of GB BPR and is therefore considered as a candidate for substitution.

In the absence of confirmation that all major components of creosote rapidly degrade in air so do not have the potential for long range transport, it may be prudent to consider the active as a substance *potentially* containing persistent organic pollutant (POP) constituents. HSE acknowledges that this approach is precautionary in the absence of scientific certainty over the presence of POP constituents.

### Endocrine disrupting properties

No additional endocrine disruption (ED) data has been submitted as part of this renewal.

In terms of human health, creosote has a [mandatory classification and labelling](#), according to [assimilated Regulation \(EC\) No 1272/2008](#) on classification, labelling and packaging of substances and mixtures (referred to as GB CLP), of carcinogenicity 1B (H350). Creosote therefore meets the exclusion criteria specified in Article 5 of the GB BPR, for which a non-threshold approach has been assumed. As a result, any potential endocrine effects that may be identified through submission of new data, would not be expected to affect the regulatory outcome, including the risk assessment.

Any additional risks associated with potential ED properties are likely to be small by comparison. This is because firstly, to the extent that the ED properties are typically associated with reprotoxicity effects, any associated monetised impacts will be much smaller relative to the carcinogenic impacts. Furthermore, as carcinogenicity is the leading health effect used for the risk characterisation of creosote and as no threshold is assumed for this effect, the carcinogenic risks associated with any exposures will always be greater than any ED risks. Finally, minimisation of the carcinogenic risks of creosote in the risk assessment most likely will lead to acceptable ED risks.

From an ecotoxicology perspective, insufficient data are available to conclude on the ED potential of creosote with regards to wild mammals, birds, reptiles, fish or amphibians. However, as above, any potential endocrine effects that may be identified via submission of new data, noting that the data required to conclude on ED activity/adversity constitutes

vertebrate data, would not affect the overall outcome based on the concerns over carcinogenicity for human health.

Therefore, HSE do not consider it appropriate to request further information regarding endocrine disrupting properties.

Overall, no conclusion can be made on the endocrine disrupting properties of creosote, and therefore, no conclusion can be made on whether creosote fulfils criterion (d) of Article 5(1).

### Identity of the active substance

Creosote is a UVCB substance (unknown or variable composition, complex reaction products and biological materials). The specification for creosote is based on the criteria in European Standard EN 13991:2003 as outlined in the following table.

Normative parameters according to EN 13991:2003	Unit	Creosote Grade B (EN 13991)	Creosote Grade C (EN 13991)
Density (20 °C) (DIN 51757)	g/mL	1.02-1.15	1.03-1.17
Water content (DIN 51777)	%	max. 1	max. 1
Crystallization temperature (EN 13991)	°C	max. 23	max. 50
Water- extractable phenols (EN 1014-4)	%	max. 3	max. 3
Matter insoluble in toluene (BS 144-annex G)	%	max. 0.4	max. 0.4
Boiling range (EN 13991): Distillate to 235 °C	%	max. 20	-
Boiling range (EN 13991): Distillate to 300 °C	%	40-60	max. 10
Boiling range (EN 13991): Distillate to 355 °C	%	min. 70	min. 65
Benzo[a]pyrene (EN 1014-3)	ppm	max. 50	max. 50
Flash point Pensky-Martens (EN 22719)	°C	min. 61	min. 61

New batch data to demonstrate the reference sources compliance with this standard was provided. HSE agrees the information submitted confirmed the stability of creosote production in all of the listed sources and compliance with the creosote standard.

## Classification and labelling of the active substance

The current mandatory classification and labelling for creosote according to GB CLP is: carcinogenicity 1B (H350).

The proposed classification and labelling according to GB CLP is detailed below. The additional classification over and above that for carcinogenicity in the mandatory entry for effects on fertility, developmental toxicity, skin and eye irritation, skin sensitisation and aquatic environment is based on the evaluation of the available data performed for the purpose of the first approval under Directive 98/8/EC. No new information has become available since the original approval to justify a change in the proposal.

### Proposed classification

<b>Hazard class and category codes</b>	Carc. 1B, H350 Repr. 1B, H360F Repr. 2, H361d Skin Sens. 1, H317 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=10)
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### Proposed labelling

<b>Pictogram codes</b>	GHS07 GHS08 GHS09
<b>Signal word</b>	Danger

<b>Hazard statement codes</b>	<p>H350: May cause cancer</p> <p>H360: May damage fertility. Suspected of damaging the unborn child</p> <p>H315: Causes skin irritation</p> <p>H317: May cause an allergic skin reaction</p> <p>H319: Causes serious eye irritation.</p> <p>H410: Very toxic to aquatic life with long lasting effects</p>
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### Proposed specific concentration limits, M-Factors

M = 10

### Chemistry risk assessment

The processing and application of creosote shows no particular risks arising from its physico-chemical properties when handled as specified. As the creosote product is the same as the active, the physical chemical parameters for the active also apply to the product. The ambient temperature storage stability for creosote products will be addressed at product authorisation/renewal stage.

Physical hazards data has been updated according to GB CLP in the list of endpoints.

Validated analytical methods are available for the active substance as manufactured. As the creosote product is the same as the active no formulation specific method is required.

For residues analysis, analytical methods are available for selected polycyclic aromatic hydrocarbons (PAHs) in air, water, body fluids and tissues, and food/feed of plant origin. No acceptable methods of analysis are available for products of animal origin or soil. Monitoring methods which provide full details of the analytical method with suitable acceptable validation data in relevant matrices would be needed if creosote is renewed and the relevant uses are part of any onward approval. See section [Requirements for further information](#).

### Human health risk assessment

Exposure from all the individual industrial and professional scenarios significantly exceeds the current derived minimal effect level (DMEL) and still exceeds the DMEL when appropriate risk management measures (RMMs) have been included. Whilst it can be assumed more than one task resulting in exposure could be completed in a working day this would be advised against because of the risk of exposure from the individual exposure assessments.

The risk for general public secondary exposure is demonstrated to be unacceptable for all scenarios.

The assessment of animal (livestock) exposure concludes that dietary intakes could be significant. In order to fully assess risks to livestock, an animal feeding study would be required and concurrently, data on a validated method of analysis must be generated. The data submission to meet this requirement should provide full details of the analytical method with suitable acceptable validation data (including recovery rates and the limit of quantification and detection for the active substance and residues), in relevant livestock matrices.

Regarding the proposed use of creosote on wooden posts used as supports for fruit trees (or other supports for food crops such as hops or grapevines) harmful effects on human health cannot be excluded.

### **Environmental risk assessment**

Unacceptable risks have been identified in scenarios representing UC 4a (wood in contact with soil), UC4b (wood in contact with freshwater) and UC5. Some uses in UC3 where timbers are not in contact with ground/soil can be considered as acceptable (such as potential application to non-residential cladding, fencing, railways sleepers and noise barriers) based on standard quantitative methods of environmental risk assessment.

No scenario directly representative of environmental barriers or industrial landscape retaining timbers is described in the PT8 Emission Scenario Document (ESD). But since these uses are likely to involve contact with soil and be classed as UC4a, unacceptable risks can be assumed based on the results of the other UC4a scenarios.

Application to railways sleepers is not expected to give rise to contamination of the soil compartment (as the ground under tracks is considered to be a technosphere) or surface water bodies (due to design of track on or near bridges).

Calculations have not been carried out to assess environmental risks from application and storage of timbers industrially pre-treated with creosote. Where the industrial application of wood preservatives is regulated by local authorities, it can be assumed that storage places are sealed to prevent any direct release to the environment (local waterways, sewage treatment plant (STP) and ground).

In addition, calculations have not been carried out to assess environmental risks from application by brush treatment of wood components used in UC3 and UC4 that have been modified (e.g. cut) after standard vacuum pressure treatment. According to the OECD ESD (2013), during brush application in situ any product losses due to spills and drips will likely end-up in the soil compartment, if soil is not protected with an appropriate impermeable covering.

Finally, it should be noted that creosote is a UVCB substance containing persistent, bioaccumulative and toxic (PBT) and very persistent, very bioaccumulative (vPvB)

constituents. As such, the standard quantitative approach to environmental risk assessment may not provide sufficient confidence that the environmental compartments are adequately protected and the presence of PBT and vPvB constituents leads to additional uncertainty in the estimation of risks to the environment. Therefore, based on the currently available risk assessment methodologies it cannot be demonstrated that there are no unacceptable effects to the environment.

### **Effects against target organisms**

HSE concludes efficacy has been sufficiently demonstrated for the renewal of approval of creosote. The studies available demonstrate the innate activity of the active substance when used against fungi and wood boring beetles.

### **Socioeconomic assessment (disproportionate impacts evaluation report)**

The socioeconomic material submitted by the applicant in support of the disproportionate impacts assessment contains many uncertainties and is often lacking a systematic analytical approach. The analysis and evidence presented contains numerous gaps and is often difficult to fully scrutinise and confirm, particularly due to a lack of detail and transparency, as well as some contradictory evidence submitted in the HSE consultation. This has meant that it is difficult to draw definitive conclusions regarding disproportionate impacts for society from not renewing creosote in the use classes under consideration.

Overall, HSE concludes that the applicant has not provided sufficient evidence to support the clear demonstration of disproportionate negative impacts across all uses.

However, given the demonstrated technical and economic feasibility constraints of current alternatives, there is reasonable evidence to suggest that not approving the renewal of creosote would have potentially significant disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote in the following uses:

- transmission poles
- railway sleepers

Although the evidence on technical and economic feasibility of suitable alternatives is more equivocal, especially given the safety critical nature of uses, there is also reasonable evidence to suggest that not approving the renewal of creosote would potentially have disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote in the following use:

- fencing (safety critical uses, namely those requiring compliance with BS8417 service factor D)

Given the apparent greater, albeit somewhat contested, availability of suitable alternatives, not approving the renewal of creosote is considered to be unlikely to result in

disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote in the following uses:

- fencing (non-safety critical uses)
- tree stakes

It should be noted that there is evidence of intention to transition to suitable alternatives but are to some extent currently limited in the ability to do so given supply capacity issues and lack of confidence in proven service life of those alternatives. These issues are particularly constraining for transitioning in those uses with a safety critical performance requirement (transmission poles, sleepers, safety critical fencing).

Various users are engaged in a programme of ongoing testing on service life at the present time. The length of time required for testing is linked to the service life requirements needed in the different uses. In this respect the requirements appear to be more difficult to meet for transmission poles, where specifications of 50-60 years are stipulated. The requirements in the other uses are typically of the order of up to 30 years, though longer service lives are often desired. If a renewal of the approval for creosote is granted this would be for a period of time that would ideally allow for the completion of testing to ascertain with confidence the service life performance of the alternatives, particularly for use in those uses with safety critical performance requirements, as well as to enable an increase in the supply of suitable alternatives to meet demand.

Whilst there is evidence that suitable alternatives are more widely available for fencing and tree stake uses and that some progress has been made in shifting to these alternatives, a more limited renewal extension might be warranted even though the case has not been demonstrated, in order to allow for a smoother transition to alternatives, thereby limiting any potential supply disruptions and associated costs.

A conclusion on whether there are disproportionate negative impacts for society for the following use classes has not been attempted given the lack of submitted evidence:

- marine applications
- surface treatment
- environmental barriers
- industrial landscape retaining timbers
- cladding for non-residential buildings

Although for the surface treatment of wood further consideration has been given. The preservative applied must be compatible with the original treatment, then for those use classes for which creosote is approved, it will be necessary to re-treat the modified wood also with creosote at the point of installation. So long as there are no technically and

economically feasible alternatives in the use class for which surface treatment of wood is required, then clearly the same justification could also apply for the use of creosote as a surface treatment in that use class. HSE thus in principle supports the conclusion that there will not be suitable alternatives for surface treatment of creosoted wood following any modification that takes place to the wood used in any use class for which creosote is approved.

# Conclusion

## Opinion on the renewal of creosote in product type 8

Sufficient data have been submitted to conclude on the evaluation.

Creosote meets the exclusion criteria laid down in Article 5(1)(a), (c) and (e) of GB BPR.

Creosote meets the conditions laid down in Article 10(1)(a), (d) and (e) of GB BPR and is therefore considered to be a candidate for substitution.

As the exclusion criteria are met, creosote should normally not be renewed unless one of the conditions for derogation set in Article 5(2) of GB BPR is met. The socio economic assessment provides evidence that, for some of the uses, not renewing creosote would have a disproportionate negative impact on society when compared with the risk to human health, animal health or the environment.

The overall conclusions from the human health, environment and socio economic assessments are provided in the following table. As not all uses meet the derogation to the exclusion criteria as described in Article 5(2), the conclusions and opinions have been broken down into the specific uses. Expert judgement has been used to come to these conclusions based on a balance between the risk assessment conclusions, some of which show unacceptable risk, available alternatives, and the societal need for creosote treated wood.

The opinion on renewal for the use on fencing (UC3 and UC4) has been split into 2 separate types of use with different opinions. The 2 opinions relate to whether the fence is considered safety critical (namely those requiring compliance with BS8417 service factor D). A non-exhaustive list of safety critical fences would include examples such as agricultural fencing for separation of dangerous livestock from the public, highway and industrial fencing for exclusion of the public/animals from danger, and equine fencing where containment and safety of horses is needed alongside the need to prevent 'cribbing'.

In light of growing evidence that alternatives may be available, a move towards phasing out the use of creosote in GB in the longer term must be considered. There are various Government Departments and Agencies with stakeholders that use creosote for critical applications. Ahead of the next renewal, HSE intends to work with these departments and agencies to better understand the barriers to substitution and how, and over what timeframe, government may be able to support the move towards the use of alternatives in all applications.

To allow time to fully explore the barriers to substitution, with the aim of establishing a realistic timetable to move to the use of alternatives, the approval should be renewed for a time period of 7 years.

**Summary table of uses and conclusions**

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
<p><b>Pressure impregnation: Transmission poles (UC4)</b></p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>The most critical risk resulted from secondary dermal exposure. In these scenarios adult dermal exposure was over 20,000 % of the DMEL and oral exposure for toddlers was over 350,000 % of the DMEL.</p>	<p>Unacceptable risk demonstrated to soil based on standard emission scenario.</p> <p>Overall, whilst there will be areas that are likely to be adversely affected by this use, if looked at over the per hectare scale these effects would probably not be detectable at the population level.</p> <p>Unacceptable risk demonstrated to groundwater based on tier 1 porewater screening approach. Overall the risk of significant groundwater contamination arising from use on transmission poles would be expected to be low.</p>	<p>Given the demonstrated technical and economic feasibility constraints of current alternatives, there is reasonable evidence to suggest that not renewing creosote would have potentially significant disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>Can be renewed with additional mitigations to address critical secondary dermal exposure risks and a plan to establish a realistic timetable to move to the use of alternatives.</b></p>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
<p><b>Pressure impregnation: Railway sleepers (UC3)</b></p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>Secondary exposure is anticipated to be less compared to other uses due to the nature of use and placement of treated wood.</p>	<p>Noting the general uncertainty over the applicability of the FOCUS models to simulate the behaviour of complex mixtures such as creosote, higher tier modelling with PEARL 4.4.4 demonstrated acceptable risks to groundwater.</p>	<p>Given the demonstrated technical and economic feasibility constraints of current alternatives, there is reasonable evidence to suggest that not renewing creosote would have potentially significant disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>Can be renewed with a plan to establish a realistic timetable to move to the use of alternatives.</b></p>
<p><b>Pressure impregnation: Fencing (horizontal bars in; agricultural, equestrian, industrial and highways fencing) (UC3)</b></p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>The most critical risk resulted from secondary dermal exposure. In these scenarios adult dermal exposure was over 20,000 % of the DMEL and oral exposure for toddlers was</p>	<p>For UC 3 scenarios (wood above ground / not in contact with soil) acceptable risks to soil and groundwater were demonstrated.</p>	<p>For safety critical uses of fencing there is reasonable evidence to suggest that not renewing creosote would potentially have disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>Can be renewed for safety critical uses only (namely those requiring compliance with BS8417 service factor D), with additional mitigations to address critical secondary dermal exposure risks and a plan to establish a realistic timetable to</b></p>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
	<p>over 350,000 % of the DMEL.</p>		<p>In contrast, for non-safety critical uses of fencing, given the apparent greater availability of suitable alternatives, not renewing creosote is considered to be unlikely to result in disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>move to the use of alternatives.</b></p>
<p><b>Pressure impregnation: Fencing</b> (posts/stakes for agricultural, equestrian, industrial and highways fencing) (UC4)</p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>The most critical risk resulted from secondary dermal exposure. In these scenarios adult dermal exposure was over 20,000 % of the DMEL and oral exposure for toddlers was</p>	<p>Unacceptable risk demonstrated to soil based on standard emission scenario.</p> <p>Unacceptable risk demonstrated to groundwater based on tier 1 porewater screening approach.</p>	<p>For safety critical uses of fencing there is reasonable evidence to suggest that not renewing creosote would potentially have disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>Can be renewed for safety critical uses only (namely those requiring compliance with BS8417 service factor D), with additional mitigations to address critical secondary dermal exposure risks and a plan to establish a realistic timetable to</b></p>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
	<p>over 350,000 % of the DMEL.</p>		<p>In contrast, for non-safety critical uses of fencing, given the apparent greater availability of suitable alternatives, not renewing creosote is considered to be unlikely to result in disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use.</p>	<p><b>move to the use of alternatives.</b></p>
<p><b>Pressure impregnation: Tree stakes</b> (supports for vineyards and orchards as well as horticulture and landscaping applications: e.g. vineyard posts, fruit tree and tree support posts) (UC4)</p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>Both the acute and chronic consumer risk assessments considering both contact and non-contact fruit resulted in values above the relevant DMEL.</p>	<p>Unacceptable risk demonstrated to soil based on standard emission scenario.</p> <p>Unacceptable risk demonstrated to groundwater based on tier 1 porewater screening approach.</p>	<p>Given the apparently greater, albeit contested, availability of alternatives, not renewing creosote is considered to be less likely to result in disproportionate negative impacts for society when compared to the risks to human health or the environment arising from the use of creosote.</p>	<p><b>Cannot be renewed.</b></p>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
<p><b>Pressure impregnation: Marine applications (UC5)</b></p>	<p>Unacceptable risk as assessed primary exposure results in uptakes above the DMEL.</p> <p>Further exposures have not been quantified, but expected to exceed the DMEL given retention of creosote in treated wood is nearly double that of the other uses.</p>	<p>Unacceptable risk demonstrated to marine water based on standard emission scenario.</p> <p>Unacceptable risk demonstrated to marine sediment based on standard emission scenario.</p>	<p>A conclusion on whether there are disproportionate negative impacts for society for this use has not been attempted given the lack of submitted evidence.</p>	<p><b>Cannot be renewed.</b></p> <p><b>Products are not authorised for this use in GB and it is therefore presumed suitable alternatives to creosote are available.</b></p>
<p><b>Surface treatment:</b> Treatment of creosote impregnated wood (UC3 and UC4) only after modifications at the point of installation such as sawing, cutting, shaping and machining.</p>	<p>Unacceptable risk as all assessed exposure results in uptakes above the DMEL.</p> <p>Exposure from brush cleaning is avoidable by disposal of the contaminated brush (in line with current guidance and regulations), rather than cleaning.</p>	<p>Risks considered negligible provided appropriate risk mitigation phrases are included on product labels.</p>	<p>For those use classes for which creosote is approved, it will be necessary to re-treat the modified wood also with creosote.</p>	<p><b>Can be renewed with additional mitigations.</b></p>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
<b>Pressure impregnation: Environmental barriers (UC3)</b>	Unacceptable risk as all assessed exposure results in uptakes above the DMEL.	For the UC 3 noise barrier scenario (wood above ground / not in contact with soil) acceptable risks to sewage treatment plants were demonstrated.	A conclusion on whether there are disproportionate negative impacts for society this use has not been attempted given the lack of submitted evidence.	<b>Cannot be renewed.</b>  <b>Products are not authorised for this use in GB and it is therefore presumed suitable alternatives to creosote are available.</b>
<b>Pressure impregnation: Industrial landscape retaining timbers (UC3 and UC4)</b>	Unacceptable risk as all assessed exposure results in uptakes above the DMEL.	No scenario exists for industrial landscape retaining timbers. However, assuming such timbers would be classed at least partially as UC4 (wood in contact with soil) the conclusions of the risk assessment for the UC4 fence scenario could be read across for this specific use. As such, an unacceptable risk in soil would be assumed.	A conclusion on whether there are disproportionate negative impacts for society for this use has not been attempted given the lack of submitted evidence.	<b>Cannot be renewed.</b>  <b>Products are not authorised for this use in GB and it is therefore presumed suitable alternatives to creosote are available.</b>
<b>Pressure impregnation: Cladding for non-</b>	Unacceptable risk as all assessed exposure results	For the UC 3 house scenario (wood above ground / not in contact	A conclusion on whether there are disproportionate negative impacts for	<b>Cannot be renewed.</b>

Use	Human health conclusions	Environmental conclusions	Socioeconomic conclusions	Overall opinion
<p><b>residential buildings (UC3)</b></p>	<p>in uptakes above the DMEL.</p>	<p>with soil) acceptable risks to soil were demonstrated.</p> <p>Acceptable risks to groundwater were demonstrated based on higher tier modelling.</p>	<p>society for this use has not been attempted given the lack of submitted evidence.</p>	<p><b>Products are not authorised for this use in GB and it is therefore presumed suitable alternatives to creosote are available.</b></p>
<p><b>Hot and cold impregnation, non-pressure method:</b></p> <p>Tree stakes (supports for vineyards and orchards as well as horticulture and landscaping applications: e.g. vineyard posts, fruit tree and tree support posts) (UC4)</p>	<p>The type of impregnation would not affect the risk assessment. Therefore the conclusions from the tree stakes row above apply here too.</p>	<p>The type of impregnation would not affect the risk assessment. Therefore the conclusions from the tree stakes row above apply here too.</p>	<p>A conclusion on whether there are disproportionate negative impacts for society for this is not possible as it is a impregnation treatment method not a use.</p>	<p><b>Cannot be renewed.</b></p> <p><b>As the tree stakes use cannot be renewed and this specific treatment method only applies to wooden tree supports, it similarly cannot be renewed.</b></p>

## Conditions of renewal

1. Specification: Grade B and Grade C creosote as specified in European Standard EN 13991:2003.
2. The authorisation of biocidal products in GB is subject to the following conditions:
  - a. Products must only be authorised for pressure impregnation or surface treatment of timber to be used as; transmission poles, railway sleepers and safety critical fencing (UC3 and UC4).
  - b. Surface treatment must only be authorised for application to creosote-impregnated transmission poles, railway sleepers and safety critical fencing (UC3 and UC4) after necessary modifications at the point of installation. Treatment must be limited to situations where modifying the timber before pressure treatment is not possible.
  - c. Product authorisations must apply the risk mitigation measures and labelling requirements as specified in section [Risk mitigation measures](#).
  - d. As creosote is considered a candidate for substitution, a comparative assessment must be performed as part of the product authorisation/renewal.
3. The placing on the market of treated articles in GB is subject to the following conditions:
  - a. Creosote-treated timber must only be placed on the GB market for use as; transmission poles, railway sleepers and safety critical fencing (UC3 and UC4).
  - b. Creosote-treated timber placed on the GB market must be labelled with a statement that it is only for use as transmission poles, railway sleepers or safety critical fencing, as applicable.
  - c. Creosote-treated timber placed on the GB market must be labelled with the information listed in the second subparagraph of Article 58(3) of GB BPR.
  - d. Creosote-treated timber placed on the GB market must be additionally labelled as specified in section [Risk mitigation measures](#).
  - e. Creosote-treated timber placed on the GB market must be labelled with a statement that the marketing of second-hand creosote treated articles to the general public is not allowed for articles treated after 31 December 2002 (as specified in entry number 31 in Annex XVII of assimilated Regulation (EC) No 1907/2006 (UK REACH)).
  - f. Creosote-treated timber must not be placed on the GB market for use as; fencing (non-safety critical uses), tree stakes, marine applications,

environmental barriers, industrial landscape retaining timbers, cladding for non-residential buildings.

## Risk mitigation measures

The use of creosote-based biocidal products and treated articles must be subject to appropriate risk mitigation measures to ensure that exposure of humans, animals and the environment is minimised as far as possible.

The following risk mitigation measures have been identified for the uses that can be renewed. These risk mitigation measures should be considered when authorising or renewing products, together with possible other risk mitigation measures.

1. Timber must be fully modified before pressure treatment wherever possible.
2. With the exception of railway sleepers, treatment must only be applied to timber which will not be used above or adjacent to surface waters.
3. Industrial application processes must be carried out within a contained area; situated on impermeable hard standing, with bunding to prevent run-off and a recovery system in place (e.g. sump). Any losses of the product must be collected for reuse or disposal as hazardous waste in accordance with local requirements.
4. Surface treatment must not be carried out in areas accessible to the general public.
5. During in situ brush application treatments, the soil adjacent to the treated surface must be protected with an impermeable cover and any spillage should be collected to avoid emissions to soil and disposed of as hazardous waste in accordance with local requirements.
6. Suitable operating processes and risk controls must be established for treatment applications to minimise exposure to workers as far as practically possible. Suitable personal protective equipment (PPE) must be worn where exposure cannot be reduced to an acceptable level by other means. Workers must be appropriately trained in operating processes and the correct use of PPE.
7. All protective measures in place for treatment applications must be strictly followed.
8. Mechanical or automated processes must be used to avoid contact with creosote and treated timber wherever possible (including down-stream work, for example during work with poles in service).
9. Non-essential employees must be kept out of treatment areas, especially when opening treatment vessels.
10. Wear suitable protective gloves and impermeable coveralls when handling creosote, touching contaminated surfaces, during application and when handling treated timber.

11. A thinner pair of (cotton) gloves must be worn under chemical resistant gloves.
12. Chemical resistant (impermeable) coveralls, or equivalent, must be worn over regular work clothes (long-sleeved shirts and long trousers).
13. Creosote-resistant boots must be worn when entering treatment vessels (e.g. for cleaning or maintenance).
14. Tight sealings (sleeve capes) must be used e.g. at the border of gloves and sleeves and at the border of trousers and boots.
15. All PPE must be changed frequently, and immediately after contamination. When disposing of contaminated PPE this should be in accordance with local requirements for the disposal of hazardous waste.
16. New gloves must be worn for each shift/task and changed immediately if significant contamination occurs.
17. Do not launder creosote contaminated clothing or coveralls at home. Professional laundering should occur, or disposal of contaminated clothing as hazardous waste in accordance with local requirements.
18. Where there is risk of skin contact, wash skin with suitable cleaning solutions as soon as possible after each work task.
19. Where there is risk of inhalation exposure, respiratory protection, such as a full face mask with particle filter P3 in combination with gas filter A (brown), must be worn.
20. Working areas, such as treatment areas, must be monitored or inspected regularly to ensure a suitable cleaning frequency. Other areas such as changing and washing rooms, break rooms and control rooms must be cleaned weekly.
21. Relevant equipment and tools (with the exception of brushes) must be cleaned if contaminated.
22. Do not clean brushes after surface treatment – dispose of as hazardous waste in accordance with local requirements.
23. Freshly treated timber must be stored after treatment under shelter or on impermeable hard standing, or both, to prevent direct losses to soil, sewer or water. Any losses of the product must be collected for reuse or disposal as hazardous waste in accordance with local requirements.
24. In case of temporary storage of treated timber at sites other than industrial impregnation facilities, timber must be stored on an impermeable hard standing or under shelter (e.g. roof or covered with a tarpaulin) and, if stored in residential or recreational areas, any access by general public must be restricted (e.g. using a fence or a cover).

25. Surface treatment may only be carried out on transmission poles, railway sleepers and safety critical fencing where it is necessary to make modifications after pressure treatment with creosote. Treatment must be limited to the parts of the timber exposed by the modifications.
26. Treated timber must be fully dried before installation.
27. Where there is risk of skin contact with treated timber, suitable protective gloves and chemical resistant (impermeable) coveralls, or equivalent, must be worn over regular work clothes (long-sleeved shirts and long trousers). Do not launder creosote contaminated clothing or coveralls at home. Professional laundering should occur, or disposal of contaminated clothing as hazardous waste in accordance with local requirements.
28. Sky lifts (aerial access platforms) must be used for transmission pole maintenance wherever possible, to minimise contact with treated timber.
29. With the exception of railway sleepers, treated timber must not be installed above or adjacent to surface waters.
30. The installation of creosote-treated transmission poles must be accompanied by a suitable location-specific risk assessment to identify and avoid potential exposure to the general public as far as practically possible.
31. Where the installation of creosote-treated transmission poles in areas accessible to the general public cannot be avoided, additional suitable mitigations must be applied to minimise exposures as far as practically possible.
32. The installation of creosote-treated safety critical fencing must be accompanied by a suitable location-specific risk assessment to identify and avoid potential exposure to the general public as far as practically possible.
33. Where the installation of creosote-treated safety critical fencing in areas accessible to the general public cannot be avoided, additional suitable mitigations must be applied to minimise exposures as far as practically possible.

Biocidal products must be labelled with risk mitigation measures 1-26.

Treated timber must be labelled with risk mitigation measures 24-33.

## **Requirements for further information**

Sufficient data have been submitted to conclude on the evaluation. The following requirements have been identified where additional data are required.

### **Information requirements annex points 2.9, 2.10 and 2.11 (of GB BPR Annex II, Title 1)**

The specification of creosote should be re-considered at the next renewal.

### **Information requirements annex points 5.2.1 (of GB BPR Annex II, Title 1)**

Validation data in accordance with [Guidance on the BPR: Volume I Parts A+B+C](#) for the method of analysis proposed as a monitoring method for the determination of residues in soil must be submitted. Validation data must be provided for the soil matrix. The method should be validated for a suitable number of creosote components (and/or metabolites) linked to a proposed residue definition.

These data are to be made available no later than 2 years after the renewal date.

### **Information requirements annex points 5.2.3 (of GB BPR Annex II, Title 1)**

Validation data in accordance with [Guidance on the BPR: Volume I Parts A+B+C](#) for the method of analysis proposed as a monitoring method for the determination of residues in sediment must be submitted. Validation data must be provided for the sediment matrix. The method should be validated for a suitable number of creosote components (and/or metabolites) linked to a proposed residue definition.

These data are to be made available no later than 2 years after the renewal date.

### **Information requirements annex points 5.3 and 8.16 (of GB BPR Annex II, Title 1)**

The assessment of animal (livestock) exposure concludes that dietary intakes would be significant. In order to fully assess risks to livestock, an animal feeding study would be required (please consult HSE before setting up a study) and concurrently, data on a validated method of analysis must be generated. The data submission to meet this requirement should provide full details of the analytical method with suitable acceptable validation data (including recovery rates and the limit of quantification and detection for the active substance and residues), in relevant livestock matrices.

These data are to be made available for the next renewal assessment of creosote if the safety critical agricultural fencing uses that could result in exposure to livestock are required for onward approval.

## **Post UK government departments commenting**

UK government departments were consulted on the final draft of this opinion in September 2025.

Feedback from government departments and Scottish and Welsh Governments was supportive of the approach taken and conclusions reached.







## Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [the HSE website](#).

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