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COMMISSION IMPLEMENTING DECISION (EU) 2026/2150

of 25 September 2026

allowing Czechia to authorise biocidal products containing ethylene oxide for the protection of cultural heritage

(notified under document C(2026) 6691)

(Only the Czech text is authentic)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products ([1]), and in particular Article 55(3) thereof,

After consulting the Standing Committee for Biocidal Products,

Whereas:

(1) Ethylene oxide in product-type 2 (disinfectants and algaecides not intended for direct application to humans or animals), as defined in Annex V to Regulation (EU) No 528/2012, was included in the work programme for the systematic examination of all existing active substances contained in biocidal products referred to in that Regulation, as set out in Annex II to Commission Delegated Regulation (EU) No 1062/2014 ([2]). An application for approval of ethylene oxide in product-type 2 was submitted on 1 December 2009.

(2) Commission Implementing Decision (EU) 2025/1074 ([3]) found that the representative product included in the application for approval was not within the scope of Regulation (EU) No 528/2012 and that, as a consequence, it was appropriate to not approve ethylene oxide as an active substance for use in biocidal products of product-type 2.

(3) In accordance with Article 55(3) of Regulation (EU) No 528/2012, on 5 February 2026 Czechia submitted to the Commission an application for a derogation from Article 19(1), point (a), of that Regulation, in which it asked to be allowed to authorise biocidal products containing ethylene oxide for the protection of cultural heritage.

(4) According to the information provided by Czechia, the use of ethylene oxide is essential for the protection of cultural heritage artefacts, in particular objects based on polysaccharides (primarily cellulose) and proteins (primarily collagen), such as archive material, library collections, museum exhibits, photographic and cinematographic heritage objects, since it appears to be the only efficient technique to control the variety of harmful organisms that can threaten such objects. According to Czechia, the disinfection with ethylene oxide in fumigation chambers is the most effective disinfection procedure for the protection of cultural heritage objects, not only due to the possibility of large-scale treatment of collections, but especially due to its high penetration ability, broad spectrum efficacy (against bacteria, viruses, fungi and spores, including resistant species that other methods are unable to destroy), the low temperature required for the treatment of heat-sensitive materials, like most organic materials, as well as the compatibility with the treated materials, causing minimal material damage.

([1]) OJ L 167, 27.6.2012, p. 1, ELI: http://data.europa.eu/eli/reg/2012/528/oj.

([2]) Commission Delegated Regulation (EU) No 1062/2014 of 4 August 2014 on the work programme for the systematic examination of all existing active substances contained in biocidal products referred to in Regulation (EU) No 528/2012 of the European Parliament and of the Council (OJ L 294, 10.10.2014, p. 1, ELI: http://data.europa.eu/eli/reg_del/2014/1062/oj).

([3]) Commission Implementing Decision (EU) 2025/1074 of 2 June 2025 not approving ethylene oxide as an existing active substance for use in biocidal products of product-type 2 in accordance with Regulation (EU) No 528/2012 of the European Parliament and of the Council (OJ L, 2025/1074, 3.6.2025, ELI: http://data.europa.eu/eli/dec_impl/2025/1074/oj.

(5) According to Czechia, there are no appropriate alternatives for the treatment of cultural heritage objects. Many chemical substitutes exhibit only a fungistatic or bacteriostatic effect, temporarily inhibiting the growth of microorganisms, rather than a biocidal effect that ensures their complete elimination. Such methods show inadequate penetration into voluminous materials, or have negative impacts on the stability and colour of pigments. According to Czechia, the method of anoxia is effective against insects, however, it is ineffective against mould and bacteria. Gamma radiation is a very costly and difficult to replicate technique which requires specific equipment. According to Czechia, although gamma radiation is to be the only theoretical large-scale alternative, it has been shown to cause significant degradation of cellulose, considerably reducing the stability and durability of documents and low temperature techniques (freezing) can stop the growth of mould but are not effective against spores.

(6) As indicated by Czechia in the application, disinfection with ethylene oxide is carried out only by trained personnel in specialised, purpose-built facilities, following a strict and controlled process. After disinfection, a multi-stage ventilation/aeration phase is carried out, to remove gas residues from the objects. High levels of safety for operators are guaranteed by the continuous monitoring of residual concentrations of desorbed gas at all stages of the process using gas chromatography. To prevent the emission of gas into the atmosphere, each facility is equipped with a waste gas disposal unit, known as an abator, which uses catalytic combustion technology to decompose ethylene oxide into water vapor and carbon dioxide.

(7) The information and justification contained in the application submitted by Czechia shows that the use of ethylene oxide is essential for the protection of cultural heritage artefacts in Czechia and there are no appropriate alternatives. The alternatives are either not sufficiently effective against the target organisms or can cause damage to the materials treated

(8) Based on the information and justification provided by Czechia, it is appropriate to conclude that ethylene oxide is essential for the protection of cultural heritage in Czechia and that no appropriate alternatives are currently available. Czechia should therefore be allowed to authorise biocidal products containing ethylene oxide for the protection of cultural heritage,

HAS ADOPTED THIS DECISION:

Article 1

Czechia may authorise biocidal products containing ethylene oxide for the protection of cultural heritage until 31 July 2031.

Article 2

This Decision is addressed to the Czech Republic.

Done at Brussels, 25 September 2026.

For the Commission
Olivér VÁRHELYI
Member of the Commission