

**AGREEMENT OF THE MEMBER STATE COMMITTEE
ON THE IDENTIFICATION OF
PHENANTHRENE
AS A SUBSTANCE OF VERY HIGH CONCERN**

**According to Articles 57 and 59 of
Regulation (EC) 1907/2006¹**

Adopted on 12 December 2018

This agreement concerns

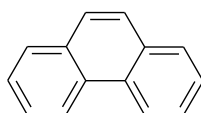
Substance name: Phenanthrene

EC number: 201-581-5

CAS number: 85-01-8

Molecular formula: C₁₄H₁₀

Structural formula:



¹Regulation (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

France presented a proposal in accordance with Article 59(3) and Annex XV of the REACH Regulation (29 August 2018, submission number SPS-014398-18) on identification of *Phenanthrene* as a substance of very high concern due to its very persistent and very bioaccumulative (vPvB) properties.

The Annex XV dossier was circulated to Member States on 4 September 2018 and the Annex XV report was made available to interested parties on the ECHA website on the same day according to Articles 59(3) and 59(4).

Comments were received from both Member States and interested parties on the proposal.

The dossier was referred to the Member State Committee on 19 November 2018 and discussed in the meeting on 10-14 December 2018 of the Member State Committee.

Agreement of the Member State Committee in accordance with Article 59(8):

***Phenanthrene* is identified as a substance meeting the criteria of Article 57 (e) of Regulation (EC) 1907/2006 (REACH) as a substance, which is very persistent and very bioaccumulative (vPvB) in accordance with the criteria and provisions set out in Annex XIII of Regulation (EC) 1907/2006 (REACH).**

UNDERLYING ARGUMENTATION FOR IDENTIFICATION OF SUBSTANCES OF VERY HIGH CONCERN

Persistence and bioaccumulation

The assessment of the vPvB properties in the present dossier and the conclusion that phenanthrene fulfils the criteria in Article 57 (e) were based mainly on the information in the MSC Support Document on CTPHT (ECHA, 2009)² and supplemented with information from newer studies. All available information (such as the results of standard tests, modelling and (Q)SAR results) were considered together in a weight-of-evidence approach.

Persistence

The available experimental information show that phenanthrene degrades very slowly in sediment with half-life greater than 180 d.

In soil simulation test performed in laboratory condition, phenanthrene shows a fast degradation. However, the available field studies shows that phenanthrene could degrade slower depending on e.g. the local conditions, matrix, methodological conditions. The current information does not allow for a final conclusion on persistency of phenanthrene in soil.

Thus, the P and the vP criteria of REACH Annex XIII are fulfilled by phenanthrene for sediments.

Bioaccumulation

A substance fulfils the B criterion when the bioconcentration factor in aquatic species is greater than 2 000, and the vB criterion when the bioconcentration factor in aquatic species is greater than 5 000. The bioaccumulation of phenanthrene was measured in three studies with fish (BCFs ranging from 2 229 to 6 118 L/kg), two studies with crustacean (BCFs ranging from 5 513 to 28 145 L/kg), two studies with copepod (BCFs ranging from 5 252 to 71 077 L/kg) and one study with an oligochaete species (BCF = 5 222 L/kg). Thus, BCFs greater than 2 000 and 5 000 were obtained.

Thus, the B and the vB criteria of REACH Annex XIII are fulfilled by phenanthrene.

In conclusion, *phenanthrene* meets the criteria for a vPvB substance according to Article 57 (e) of REACH Regulation by comparing all relevant and available information according to the criteria set out in the Annex XIII of REACH in a weight-of-evidence determination.

Reference:

Support Document (Member State Committee, 12 December 2018)

² ECHA, 2009: MSC Support Document for SVHC identification of Coal Tar Pitch, High Temperature (<http://echa.europa.eu/documents/10162/73d246d4-8c2a-4150-b656-c15948bf0e77>)