

Pentabromodiphenyl ether and tetrabromodiphenyl ether – DECISION FOR CONSULTATION

[For incorporation in] Industrial Chemicals Environmental Management Register

Schedule 7 – Relevant industrial chemicals that are likely to cause serious or irreversible harm to the environment with no essential uses

Relevant industrial chemical
Chemical class name: Pentabromodiphenyl ether and tetrabromodiphenyl ether (pentaBDE and tetraBDE) CAS numbers: 40088-47-9 (tetrabromodiphenyl ether – unspecified congeners), 32534-81-9 (pentabromodiphenyl ether – unspecified congeners). All 46 pentabrominated congeners and all 42 tetrabrominated congeners are included in the definition.
Risk management measures including prohibitions and restrictions
(a) This entry comes into effect on 1 July 2024.
(b) The import, manufacture and use of the class of chemicals (whether on its own or in mixtures) are prohibited except:
(i) in circumstances where the class of chemicals is present as unintentional trace contamination at the following levels (to be reviewed by the department by 1 July 2027): (a) sum of all tetraBDE congeners: equal to or below 10 mg/kg; and (b) sum of all pentaBDE congeners: equal to or below 10 mg/kg; or
(ii) for research or laboratory purposes; or
(iii) if a hazardous waste import permit authorises the import of the class of chemicals.
(c) The import, manufacture and use of an article containing the class of chemicals are prohibited except:
(i) in circumstances where polybrominated diphenyl ethers (PBDEs) are present in the article as an unintentional trace contaminant at a level equal to or below 500 mg/kg as the sum of all tetra-, penta-, hexa-, hepta-, octa-, nona- and decaBDE congeners (to be reviewed by the department by 1 July 2027); or
(ii) for research or laboratory purposes; or
(iii) if a hazardous waste import permit authorises the import of the article; or
(iv) in circumstances in which the article is already in use on or before 1 July 2024.
(d) The export of the class of chemicals (whether on its own or in mixtures), or an article containing the class of chemicals, is prohibited except:
(i) for the class of chemicals – in circumstances where the class of chemicals is present as unintentional trace contamination at the following levels (to be reviewed by the department by 1 July 2027): (a) sum of all tetraBDE congeners: equal to or below 10 mg/kg; and (b) sum of all pentaBDE congeners: equal to or below 10 mg/kg; or
(ii) for the article – in circumstances where PBDEs are present in the article as unintentional trace contamination at a level equal to or below 500 mg/kg as the sum of all tetra-, penta-, hexa-, hepta-, octa-, nona- and decaBDE congeners (to be reviewed by the department by 1 July 2027); or
(iii) for research or laboratory purposes; or
(iv) if a hazardous waste export permit authorises the export of the class of chemicals or the article.
(e) Producers and holders of waste must undertake all reasonably practicable measures to avoid contamination of waste not containing tetraBDE and pentaBDE with tetraBDE and pentaBDE and must not dilute tetraBDE and pentaBDE waste with waste not containing tetraBDE and pentaBDE to lower the concentrations below relevant waste handling and disposal thresholds.
(f) Waste consisting of, containing or contaminated with PBDEs at a concentration that is equal to, or greater than, 500 mg/kg as the sum of all tetra-, penta-, hexa-, hepta-, octa-, nona- and decaBDE congeners (to be reviewed by the department by 1 July 2027) must be either:
(i) treated in such a way as to ensure that the class of chemicals is destroyed or irreversibly transformed so that the remaining waste and environmental releases do not contain chemicals that exhibit Schedule 6 or Schedule 7 risk characteristics, or (ii) managed or disposed of in an environmentally sound manner as authorised under a law of the Commonwealth or a law of a State, where treatment in accordance with subparagraph (i) is not the environmentally preferable option.
(g) Waste consisting of, containing or contaminated with PBDEs at a concentration of less than 500 mg/kg as the sum of all tetra-, penta-, hexa-, hepta-, octa-, nona- and decaBDE congeners (to be reviewed by the department by 1 July 2027) must be managed or disposed of in an environmentally sound manner as authorised under a law of the Commonwealth or a law of a State.
(h) Disposal must not lead to recovery, recycling, reclamation or re-use of the class of chemicals on its own, subject to paragraph (i).
(i) In carrying out disposal, the class of chemicals may be isolated from the waste, provided that it is subsequently disposed of in accordance with paragraphs (f) and (g).
(j) If an activity in relation to the class of chemicals, or an article containing the class of chemicals, is not permitted under paragraph (b), (c) or (d), a holder of a stockpile of the class of chemicals must:

(i) notify the relevant agency responsible for environmental protection of the nature and size of the stockpile; and (ii) manage that stockpile as waste in accordance with paragraphs (f) and (g); and (iii) comply with all relevant laws that apply in the relevant jurisdiction.
(k) The IChEMS Minimum Standards must be complied with.

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Terms defined in the Register instrument
The following terms are to be defined in the Register: article has the same meaning as in the <i>Industrial Chemicals Act 2019</i>. disposal has the same meaning as in the <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>. Note: Other grammatical forms of “disposal” (such as “disposed of”) have a corresponding meaning (see section 18A of the <i>Acts Interpretation Act 1901</i>). environmental release means any introduction of pollutants into the environment as a result of any human activity, whether deliberate or accidental, routine or nonroutine. hazardous waste export permit means an export permit within the meaning of the <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>. hazardous waste import permit means an import permit within the meaning of the <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>. IChEMS Minimum Standards means the minimum standards agreed to by Commonwealth, State and Territory environmental regulators as published by the [Environment] Department and as existing from time to time. industrial use has the same meaning as in the <i>Industrial Chemicals Act 2019</i>. manufacture has the same meaning as in the <i>Industrial Chemicals Act 2019</i>. relevant agency includes: (a) a department, agency or authority of the Commonwealth; and (b) a State government body. Schedule 6 risk characteristics has the same meaning as in the Industrial Chemicals Environmental Management (Register) Principles 2022. Schedule 7 risk characteristics has the same meaning as in the Industrial Chemicals Environmental Management (Register) Principles 2022. stockpile of a relevant industrial chemical means an accumulation of substances, mixtures or articles that contains, or consists of, the class of chemicals. unintentional trace contamination means circumstances where a chemical is present unintentionally and unavoidably below a set level at which the class of chemicals cannot be meaningfully used. use has the same meaning as in the <i>Industrial Chemicals Act 2019</i>. waste has the same meaning as in the <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>.

Terms defined in the <i>Industrial Chemicals Environmental Management (Register) Act 2021</i>
CAS number for an industrial chemical has the same meaning as in the Industrial Chemicals Act end use for an industrial chemical has the same meaning as in the Industrial Chemicals Act. Environment Department means the Department administered by the Minister administering this Act. relevant industrial chemical means: (a) a particular industrial chemical; or (b) a particular class of industrial chemicals. State includes the Northern Territory and the Australian Capital Territory.

Terms defined in the <i>Industrial Chemicals Act 2019</i>
article means an object that: (a) is produced for use for a particular purpose, being a purpose that requires that the object have a particular shape, surface or design; and (b) is formed to that shape, surface or design during production; and (c) undergoes no change of chemical composition when used for that purpose except as an intrinsic aspect of that use; but does not include an object of a kind prescribed by the rules for the purposes of this definition. end use, for an industrial chemical, means a purpose to which the industrial chemical can be applied manufacture an industrial chemical means do any of the following:

(a) produce the industrial chemical in the course of a chemical reaction; (b) extract the industrial chemical from a natural environment, with or without chemical change; (c) extract the industrial chemical from a UVCB substance; (d) produce or extract the industrial chemical in circumstances prescribed by the rules for the purposes of this paragraph; but does not include producing or extracting the industrial chemical as described in paragraphs (a), (b) or (c) in circumstances prescribed by the rules for the purposes of this definition. use, for an industrial chemical, includes any of the following activities involving the industrial chemical: (a) processing; (b) formulating; (c) storing; (d) transporting; (e) filling into containers; (f) transferring from a container to another container; (g) handling; (h) mixing; (i) sampling and testing; (j) producing an article; (k) releasing into the environment (with or without prior treatment); (l) activities relating to an end use for the industrial chemical; (m) any other activity prescribed by the rules for the purposes of this paragraph; but does not include an activity prescribed by the rules for the purposes of this definition.
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Terms defined in the <i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>
Disposal means an operation specified in Annex IV to the Basel Convention. environmentally sound management, in relation to hazardous waste, has the meaning given by section 4E: a reference in this Act to the environmentally sound management of hazardous waste is a reference to taking all practicable steps to ensure that the waste is managed in a manner that will protect human health, and the environment, against the adverse effects that may result from the waste. hazardous waste export permit means a permit under section 17 (<i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>) permitting the export of hazardous waste. hazardous waste import permit means a permit under section 17 (<i>Hazardous Waste (Regulation of Exports and Imports) Act 1989</i>) permitting the import of hazardous waste. Waste means a substance or object that: (a) is proposed to be disposed of; or (b) is disposed of; or (c) is required by a law of the Commonwealth, a State or a Territory to be disposed of.