

Report from Portugal on the monitoring of the implementation of Regulation (EU) 2019/1021 on persistent organic pollutants (POPs Regulation)

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Introduction and background

Persistent organic pollutants (POPs) are organic substances that persist in the environment, accumulate in living organisms and pose a risk to our health and the environment. They can be transported by air, water or migratory species across international borders, reaching regions where they have never been produced or used. International agreements for the risk management of POPs have been established as no region can manage the risks posed by these substances alone.

POPs are regulated worldwide by the UNECE Protocol on POPs ("the Protocol"), adopted in 1998 in Aarhus as part of the Convention on Long Range Transboundary Air Pollution (CLRTAP) and by the Stockholm Convention on POPs, adopted in 2001 and entered into force in 2004 ("the Convention").

The Protocol and the Convention are implemented in the European Union by the Regulation (EU) 2019/1021 on persistent organic pollutants (the POPs Regulation) which repealed the original Regulation (EC) No 850/2004 on POPs. The POPs Regulation aims to protect human health and the environment with specific control measures that:

- prohibit or severely restrict the production, placing on the market and use of POPs;
- minimise the environmental release of POPs that are formed as industrial by-products;
- make sure that stockpiles of restricted POPs are safely managed; and
- ensure the environmentally sound disposal of waste consisting of, or contaminated by POPs.

POPs are listed in three Annexes to the Regulation (Annex I – banned, Annex II – restricted, Annex III – unintentionally released POPs).

POP subject to waste management provisions set out in Article 7 are listed in Annex IV.

[List of substances subject to the POPs Regulation](#)

For more information for the Stockholm Convention and the UNECE Protocol on POPs, see the following links:

[Stockholm Convention on POPs](#)

[The 1998 Aarhus Protocol on Persistent Organic Pollutants \(POPs\)](#)

Scope and period of time covered by the national reports

Article 13 of the POPs Regulation covers the reporting requirements for Member States and the European Chemicals Agency. The Member States are required to draw up and publish a report containing information specified in its Article 13(1) and give the Commission and ECHA access to the information contained in it. The information contained in this report has been compiled by ECHA on the basis of the information provided by the Member State to ECHA in accordance of Article 8(g) of the POPs Regulation. The report has been published by ECHA in its webpage with the agreement of the Member State Competent Authority on POPs.

The information contained in the national reports pertains the period from 2019 onwards. However, some Member States might have included information from previous years in their national reports for completeness. The national reports are updated annually, as far as new information becomes available to the Member States, or at least every three years.

Information from previous years is reported in accordance with the Article 12 of the Regulation (EC) No 850/2004 and is available in the following Synthesis Reports:

[Summary of the third synthesis report for the period 2010-2012](#)

[Part I](#)

[Part II](#)

Section 1. Control of manufacturing, placing on the market and use of POPs

In accordance with Article 3 of the POPs Regulation, the manufacturing, placing on the market and use of substances listed in Annex I to the POPs Regulation is prohibited, while substances listed in Annex II are subject to restriction. Currently no substances are listed in Annex II.

Specific exemptions to the prohibition on manufacturing, placing on the market and use for certain substances are specified in the relevant entries of Annex I. In addition, as specified in Article 4(1), the manufacturing, placing on the market and use of substances listed in Annex I and II and use is permitted: (a) for use for laboratory-scale research or as a reference standard; (b) when the substance is present as an unintentional trace contaminant, as specified in the relevant entries of Annex I or II, in substances, mixtures or articles.

In accordance with Article 4(2), for a substance added to Annex I or II after 15 July 2019, Article 3 shall not apply for a six-month period if that substance is present in articles produced before or on the date that this Regulation becomes applicable to that substance. Article 3 shall not apply in the case of a substance being present in articles already in use before or on the date that this Regulation or Regulation (EC) No 850/2004 on persistent organic pollutants became applicable to that substance, whichever date came first.

Table 1. List of substances included in Annex I to the POPs Regulation.

Substance/group of substances (Link to substance infocard page)	Uses	Specific exemptions for the manufacturing, placing on the market and use
Aldrin	Pesticide	No
Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs)	Industrial chemical	No
Bis(pentabromophenyl) ether (decabromodiphenyl ether; decaBDE)	Industrial chemical	Yes. See Annex I to the POPs Regulation
Chlordane	Pesticide	No
Chlordecone	Pesticide	No
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)	Pesticide	No
Dicofol	Pesticide	No
Dieldrin	Pesticide	No
Endosulfan and its isomers	Pesticide	No
Endrin	Pesticide	No
Heptabromodiphenyl ether	Industrial chemical	Yes. See Annex I to the POPs Regulation
Heptachlor	Pesticide	No
Hexabromo-1,1'-biphenyl	Industrial chemical	No
Hexabromocyclododecane (HBCDD)	Industrial chemical	No
Hexabromodiphenyl ether	Industrial chemical	Yes. See Annex I to the POPs Regulation
Hexachlorobenzene	Industrial chemical and pesticide	No

Substance/group of substances (Link to substance infocard page)	Uses	Specific exemptions for the manufacturing, placing on the market and/or use
Hexachlorobuta-1,3-diene	Industrial chemical and pesticide	No
Hexachlorocyclohexanes, including lindane	Pesticide	No
Mirex	Pesticide	No
Pentabromodiphenyl ether	Industrial chemical	Yes. See Annex I to the POPs Regulation
Pentachlorobenzene	Industrial chemical and pesticide	No
Pentachlorophenol and its salts and esters	Pesticide	No
Perfluorooctane sulfonic acid and its derivatives (PFOS) C₈F₁₇SO₂X, (X = OH, Metal salt (O-M+), halide, amide, and other derivatives including polymers)	Industrial chemical and pesticide	Yes. See Annex I to the POPs Regulation
Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	Industrial chemical	Yes. See annex I to the POPs Regulation
Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	Industrial chemical	No
Polychlorinated biphenyls (PCB)	Industrial chemical	No
Polychlorinated naphthalenes	Industrial chemical	No
Tetrabromodiphenyl ether	Industrial chemical	Yes. See Annex I to the POPs Regulation
Toxaphene	Industrial chemical	No

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Section 1.1. Manufacturing and placing on the market of substances listed in Annex I and II of POPs Regulation

The table below contains information provided by Portugal concerning the production, import and/or placing on the market of substances listed in Annex I or II to the POPs Regulation in Portugal.

Table 2. Data on the production, import and/or placing on the market in Portugal of substances listed in Annex I or II to the POPs Regulation.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Aldrin	206-215-8	309-00-2		2019	0	0.00130	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 4 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2020	0	0.000330	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 1 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2021	0	0	N/A	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Aldrin		206-215-8	309-00-2	2022	0	0	N/A	Data from PT statistical institute
				2019	0	Confidential	0	Data from PT Tax Authority
				2020	0	Confidential	0	Data from PT Tax Authority
Alkanes C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs)		287-476-5	85535-84-8	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Organic chemicals or preparations consisting predominantly of organic chemicals, in liquid form at 20 °C, not elsewhere specified or included" corresponding to CN Code 38249992 = 11 845 753 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Organic chemicals or preparations consisting predominantly of organic chemicals, in liquid form at 20 °C, not elsewhere specified or included" corresponding to CN Code 38249992 = 8702 153 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Bis (pentabromophenyl) ether; (decabromodiphenyl ether; decaBDE)		214-604-9	1163-19-5	2019	0	9.7790	0	Individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 9779 kg. Given that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.
				2020	0	14.6550	0	individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 14655 kg. Given that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Bis (pentabromophenyl) ether; (decabromodiphenyl ether; decaBDE)		214-604-9	1163-19-5	2021	0	N/A	N/A	Import or placing on the market not reported
				2022	0	N/A	N/A	Import or placing on the market not reported
Chlordane		200-349-0	57-74-9	2019	0	0.00130	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 4 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2020	0	0.000330	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 1 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2021	0	N/A	N/A	Import or placing on the market not reported
				2022	0	N/A	N/A	Import or placing on the market not reported
Chlordecone		205-601-3	143-50-0	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Chlordecone		205-601-3	143-50-0	2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)		200-024-3	50-29-3	2019	0	0.00150	0	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO) and DDT (ISO) = 3 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2020	0	0.0010	0	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO), and DDT (ISO) = 2 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2021	0	0.050	N/A	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO), and DDT (ISO) = 100 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)		200-024-3	50-29-3	2022	0	0	N/A	Data from PT statistical institute
				2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) " corresponding to CN Code 29062900 = 457 kg
Dicofol		204-082-0	115-32-2	2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) " corresponding to CN Code 29062900 = 768 kg
				2019	0	0.0010	0	Data from PT statistical institute
Dieldrin		200-484-5	60-57-1	2020	0	0.0010	0	Data from PT statistical institute
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0.10	N/A	Data from PT statistical institute
				2019	0	0.0010	0	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Endosulfan		204-079-4	115-29-7	2019	0	6.2740	0	Data from PT statistical institute
				2021	0	8.2830	N/A	Data from PT statistical institute
				2022	0	4.1040	N/A	According to PT statistical institute total import of " endosulfan "ISO" corresponding to CN Code 29203000 = 4 104 kg.
				2020	0	2.70	0	Data from PT statistical institute
	α -Endosulfan	625-034-9	959-98-8	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of " Esters of other inorganic non-metal acids and their salts; their halogenated, sulfonated, nitrated or nitrosated derivatives (except esters of hydrogen halides, phosphoric esters, sulfuric esters and carbon dioxide esters, thiophosphoric esters "phosphorothioates", phosphite esters and their salts and their halogenated, sulfonated, nitrated or nitrosated derivatives and endosulfan "ISO")" corresponding to CN Code 29209070 = 72 486 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information	
					Manufactured	Imported	Placed on the market		
Endosulfan	α-Endosulfan	625-034-9	959-98-8	2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Esters of other inorganic non-metal acids and their salts; their halogenated, sulfonated, nitrated or nitrosated derivatives (except esters of hydrogen halides, phosphoric esters, sulfuric esters and carbon dioxide esters, thiophosphoric esters "phosphorothioates", phosphite esters and their salts and their halogenated, sulfonated, nitrated or nitrosated derivatives and endosulfan "ISO")" corresponding to CN Code 29209070 = 72 902 kg.	
				2021	0	N/A	N/A		Data from PT statistical institute
				2022	0	N/A	N/A		Individual data not available but according to PT statistical institute total import of "endosulfan "ISO" corresponding to CN Code 29203000 = 4 104 kg.
Endrin		200-775-7	72-20-8	2019	0	0.0010	0	Data from PT statistical institute	
				2020	0	0.0010	0	Data from PT statistical institute	
				2021	0	0	N/A	Data from PT statistical institute	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Endrin		200-775-7	72-20-8	2022	0	3.0	N/A	Data from PT statistical institute
Heptabromodiphenyl ether	Diphenyl ether, heptabromo derivative	273-031-2	68928-80-3	2019	0	0	0	Individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 9779 kg. Given that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information	
					Manuf-actured	Imported	Placed on the market		
Heptabromodiphenyl ether	Diphenyl ether, heptabromo derivative	273-031-2	68928-80-3	2020	0	0	0	Individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 14655 kg. iven that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.	
				2021	0	N/A	N/A		Import or placing on the market not reported
				2022	0	N/A	N/A		Import or placing on the market not reported
Heptachlor	Heptachlor	200-962-3	76-44-8	2019	0	0.00130	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 4 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information	
					Manufactured	Imported	Placed on the market		
Heptachlor	Heptachlor	200-962-3	76-44-8	2020	0	0.000330	0	Individual data not available but according to PT statistical institute total import of Aldrin (ISO), Chlordane (ISO) and heptachlor (ISO) = 1 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.	
				2021	0	N/A	N/A		Import or placing on the market not reported
				2022	0	N/A	N/A		Import or placing on the market not reported
Hexabromobiphenyl	Hexabromo-1,1'-biphenyl	252-994-2	36355-01-8	2019	0	1.8790	0	Data from PT statistical institute	
				2020	0	2.2530	0	Data from PT statistical institute	
				2021	0	N/A	N/A	Import or placing on the market not reported	
				2022	0	N/A	N/A	Import or placing on the market not reported	
Hexabromocyclododecane	1,2,5,6,9,10-hexabromocyclododecane	221-695-9	3194-55-6	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported	
				2020	0	0	0	Data from PT statistical institute	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Hexabromocyclododecane	1,2,5,6,9,10-hexabromocyclodecane	221-695-9	3194-55-6	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes) = 1 kg"
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes)" = 4 kg"

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manuf-actured	Imported		
Hexabromocyclododecane		247-148-4	25637-99-4	2021	0	0.0010	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes) = 1 kg"
				2022	0	0.0040	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes)" = 4 kg"

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Hexabromocyclododecane	alpha-hexabromocyclododecane	603-801-9	134237-50-6	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes) = 1 kg"
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes)" = 4 kg"

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Hexabromocyclododecane	beta-hexabromocyclododecane	603-802-4	134237-51-7	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes) = 1 kg"
				2022	0	N/A	N/A	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Hexabromocyclododecane	gamma-hexabromocyclododecane	603-804-5	134237-52-8	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes) = 1 kg"
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of cyclanic, cyclenic or cycloterpene hydrocarbons (except 1,2,3,4,5,6-hexachlorocyclohexane (HCH "ISO"), including lindane "ISO, DCI", aldrin (ISO), chlorodane (ISO), heptachlor (ISO), mirex (ISO), 1,2-dibromo-4-"1,2-dibromoethyl" cyclohexane and tetrabromocyclooctanes)" = 4 kg"

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Hexabromodiphenyl ether	Diphenyl ether, hexabromo derivative	253-058-6	36483-60-0	2019	0	0	0	Individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 9779 kg. Given that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information	
					Manuf-actured	Imported	Placed on the market		
Hexabromodiphenyl ether	Diphenyl ether, hexabromo derivative	253-058-6	36483-60-0	2020	0	0	0	Individual data not available but according to PT statistical institute: Halogen derivatives with bromine from aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, destined to the manufacture of acrylonitrile-butadiene-styrene) = 14655 kg. iven that the import/placing on the market of PBDEs (other than decaBDE) is prohibited (with few exemptions under RoHS), probably the imports are more likely to relate to decaBDE.	
				2022	0	N/A	N/A		Import or placing on the market not reported
				2021	0	N/A	N/A		Import or placing on the market not reported
Hexachlorobenzene		204-273-9	118-74-1	2019	0	0.00150	0	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO) and DDT (ISO) = 3 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Hexachlorobenzene		204-273-9	118-74-1	2020	0	0.0010	0	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO), and DDT (ISO) = 2 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2021	0	0.050	N/A	Individual data not available but according to PT statistical institute total import of Hexachlorobenzene (ISO), and DDT (ISO) = 100 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2022	0	0	N/A	Data from PT statistical institute
Hexachlorobutadiene		201-765-5	87-68-3	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	N/A	N/A	Import or placing on the market not reported
				2022	0	N/A	N/A	Import or placing on the market not reported
Hexachlorocyclohexanes, including lindane	γ-HCH or γ-BHC	200-401-2	58-89-9	2019	0	0.0030	0	Data from PT statistical institute
				2020	0	0.0030	0	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Hexachlorocyclohexanes, including lindane	γ-HCH or γ-BHC	200-401-2	58-89-9	2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
	(1α,2α,3β,4α,5β,6β)-1,2,3,4,5,6-hexachlorocyclohexane	206-270-8	319-84-6	2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
	(1α,2β,3α,4β,5α,6β)-1,2,3,4,5,6-hexachlorocyclohexane	206-271-3	319-85-7	2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
	BHC or HCH	210-168-9	608-73-1	2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
	Mirex	219-196-6	2385-85-5	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Pentabromodiphenyl ether	Diphenyl ether, pentabromo derivative	251-084-2	32534-81-9	2019	N/A	0	N/A	Data from PT statistical institute
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	N/A	N/A	Import or placing on the market not reported
				2022	0	N/A	N/A	Import or placing on the market not reported
Pentachlorobenzene		210-172-0	608-93-5	2019	N/A	0	N/A	Data from PT statistical institute
				2020	N/A	0	N/A	Data from PT statistical institute
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0.0010	N/A	Data from PT statistical institute
Pentachlorophenol and its salts and esters	Pentachlorophenol	201-778-6	87-86-5	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Pentachlorophenol and its salts and esters	Sodium pentachlorophenolate	205-025-2	131-52-2	2021	0	0.20350	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) = 407 kg". The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2022	0	0.2060	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) = 412 kg".The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
	Pentachlorophenyl laurate	223-220-0	3772-94-9	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Lauric acid, its salts and esters" corresponding to CN Code 29159030 = 81 277 kg. The individual data for each entry was estimated by dividing the tonnage value equally among the substances.

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
	Pentachlorophenyl laurate	223-220-0	3772-94-9	2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Lauric acid, its salts and esters" corresponding to CN Code 29159030 = 49 286 kg
Pentachlorophenol and its salts and esters	Potassium pentachlorophenolate	231-911-3	7778-73-6	2021	0	0.20350	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) = 407 kg". The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
				2022	0	0.2060	N/A	Individual data not available but according to PT statistical institute total import of "Aromatic cyclic alcohols and their halogenated, sulfonated, nitrated or nitrosated derivatives (except benzyl alcohol) = 412 kg". The individual data for each entry was estimated by dividing the tonnage value equally among the substances.
Perfluorooctane sulfonic acid and its derivatives (PFOS)	Heptadecafluorooctane -1-sulphonic acid	217-179-8	1763-23-1	2019	0	0.0010	0	Data from PT statistical institute
				2020	0	0	0	Data from PT statistical institute

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Perfluorooctane sulfonic acid and its derivatives (PFOS)	Heptadecafluorooctane-1-sulphonic acid	217-179-8	1763-23-1	2021	0	22.3610	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
	Potassium heptadecafluorooctane-1-sulphonate	220-527-1	2795-39-3	2019	0	23.4590	0	Data from PT statistical institute
				2020	0	0	0	Data from PT statistical institute
				2021	0	0	N/A	Data from PT statistical institute
				2022	0	0	N/A	Data from PT statistical institute
Lithium heptadecafluorooctane sulphonate	249-644-6	29457-72-5	2019	0	0.30	0	individual data not available but according to PT statistical institute total import of Perfluorooctane sulfonic acid salts, except potassium heptadecafluorooctano-1-sulphonate and ammonium heptadecafluorooctano-1-sulphonate) = 300 kg.	

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information	
					Manuf-actured	Imported	Placed on the market		
Perfluorooctane sulfonic acid and its derivatives (PFOS)	Lithium heptadecafluorooctane sulphonate	249-644-6	29457-72-5	2020	0	2.3410	0	Individual data not available but according to PT statistical institute total import of Perfluorooctane sulfonic acid salts, except potassium heptadecafluorooctano-1-sulphonate and ammonium heptadecafluorooctano-1-sulphonate) = 2341 kg	
	Heptadecafluoro-N-methyloctanesulphona mide	250-665-8	31506-32-8	2021	0	11.350	N/A	Data from PT statistical institute	
				2022	0	0.0560	N/A	Data from PT statistical institute	
	Tetraethylammonium heptadecafluorooctane sulphonate	260-375-3	56773-42-3	2021	0	0.2860	N/A	Data from PT statistical institute	
				2022	0	0.2650	N/A	Data from PT statistical institute	
	Heptadecafluorooctane sulphonic acid, compound with 2,2'-iminodiethanol (1:1)	274-460-8	70225-14-8	2021	0	0.180	N/A	Data from PT statistical institute	
				2022	0	0.7610	N/A	Data from PT statistical institute	
	Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds	Pentadecafluorooctyl fluoride	206-396-3	335-66-0	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
	Pentadecafluorooctyl fluoride	206-396-3	335-66-0	2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds	Pentadecafluorooctanoic acid	206-397-9	335-67-1	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulfonated, nitrated or nitrosated derivatives (except formic, acetic, mono-, di- or trichloroacetic, propionic, butanoic, pentanoic, palmitic, stearic acid, their salts and their esters, lauric acid, their salts and their esters, as well as , acetic anhydride) = 1 478 047 kg"

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds	Pentadecafluorooctanoic acid	206-397-9	335-67-1	2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulfonated, nitrated or nitrosated derivatives (except formic, acetic, mono-, di- or trichloroacetic, propionic, butanoic, pentanoic, palmitic, stearic acid, their salts and their esters, lauric acid, their salts and their esters, as well as , acetic anhydride) = 1 342 835 kg"
Polychlorinated Biphenyls (PCB)	1,1'-Biphenyl, chloro derivs.	215-648-1	1336-36-3	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manuf-actured	Imported	Placed on the market	
Polychlorinated Biphenyls (PCB)	1,1'-Biphenyl, chloro derivs.	215-648-1	1336-36-3	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of aromatic hydrocarbons (except chlorobenzene, o-dichlorobenzene, p-dichlorobenzene, hexachlorobenzene (ISO) and DDT (ISO) "clofenotane (INN), 1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane", pentachlorobenzene "ISO", hexabromobiphenyls and 2,3,4,5,6-pentabromoethylbenzene)" corresponding to CN Code 29039980 = 481 940 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Halogenated derivatives of aromatic hydrocarbons (except chlorobenzene, o-dichlorobenzene, p-dichlorobenzene, hexachlorobenzene (ISO) and DDT (ISO) "clofenotane (INN), 1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane", pentachlorobenzene "ISO", hexabromobiphenyls and 2,3,4,5,6-pentabromoethylbenzene)" corresponding to CN Code 29039980 = 306 271 kg
Polychlorinated naphthalenes	Naphthalene, chloro derivs.	274-864-4	70776-03-3	2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Polychlorinated naphthalenes	Naphthalene, chloro derivs.	274-864-4	70776-03-3	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Organic chemicals or preparations consisting predominantly of organic chemicals, in liquid form at 20 °C, not elsewhere specified or included" corresponding to CN Code 38249992 = 11 845 753 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Organic chemicals or preparations consisting predominantly of organic chemicals, in liquid form at 20 °C, not elsewhere specified or included" corresponding to CN Code 38249992 = 8 702 153 kg
Tetrabromodiphenyl ether	Diphenyl ether, tetrabromo derivative	254-787-2	40088-47-9	2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Tetrabromodiphenyl ether	Diphenyl ether, tetrabromo derivative	254-787-2	40088-47-9	2021	0	29.60	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") - CN code: 29093038 = 29 600 kg
				2022	0	38.8950	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") corresponding to CN code 29093038 = 38895 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Tetrabromodiphenyl ether	1,3-dibromo-2-(3,4-dibromophenoxy) benzene	620-888-9	189084-62-6	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") - CN code: 29093038 = 29 600 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") corresponding to CN code 29093038 = 38895 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Tetrabromodiphenyl ether	1,3,5-tribromo-2-(4-bromophenoxy) benzene	621-541-4	189084-63-7	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") - CN code: 29093038 = 29 600 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") corresponding to CN code 29093038 = 38895 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Tetrabromodiphenyl ether	1,2-dibromo-4-(2,4-dibromophenoxy) benzene	621-543-5	189084-61-5	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") - CN code: 29093038 = 29 600 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") corresponding to CN code 29093038 = 38895 kg

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)			Additional information
					Manufactured	Imported	Placed on the market	
Tetrabromodiphenyl ether	1,2-dibromo-4-(3,4-dibromophenoxy) benzene	621-837-3	93703-48-1	2021	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") - CN code: 29093038 = 29 600 kg
				2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of Bromine-only halogenated derivatives of aromatic ethers (except pentabromodiphenyl ether, 1,2,4,5-tetrabromo-3,6-bis "pentabromophenoxy"benzene and 1,2-bis"2,4,6-tribromophenoxy"ethane, intended for to the manufacture of acrylonitrile-butadiene-styrene "ABS") corresponding to CN code 29093038 = 38895 kg
				2019	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
				2020	N/A	N/A	N/A	Manufacture/ import or placing on the market not reported
								Individual data not available but according to PT statistical

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manufactured	Imported		
Toxaphene		232-283-3	8001-35-2	2021	0	N/A	N/A	institute total import of " Goods of heading 3808, put up in packages with a net weight content > 300 g, containing one or more of the following substances: perfluorooctane sulfonic acid and its salts; alachlor (ISO); aldicarb (ISO); aldrine (ISO); azinphos-methyl (ISO); binapacril (ISO); camphechlor (ISO) (toxaphene); capitafol (ISO); chlordane (ISO); chlordimeform (ISO); chlorobenzylate (ISO); mercury compounds; tributyltin compounds; 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane); 4,6-dinitro-o-cresol (DNOC (ISO)) or its salts; dinoseb (ISO), its salts or esters; ethylene dibromide (ISO) (1,2-dibromoethane); ethylene dichloride (ISO) (1,2-dichloroethane); dieldrin (ISO, DCI); endosulfan (ISO); penta- and octabromodiphenyl ethers; fluoroacetamide (ISO); perfluorooctanesulfonyl fluoride; heptachlor (ISO); hexachlorobenzene (ISO); 1,2,3,4,5,6-hexachlorocyclohexane (HCH (ISO)), including lindane (ISO, INN); methamidophos (ISO); monocrotophos (ISO); oxirane (ethylene oxide); parathion (ISO); methyl parathion (ISO) (methyl parathion); pentachlorophenol (ISO), its salts or esters;

Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Quantities (tonnes)		Placed on the market	Additional information
					Manuf-actured	Imported		
Toxaphene		232-283-3	8001-35-2	2022	0	N/A	N/A	Individual data not available but according to PT statistical institute total import of "Goods of heading 3808, put up in packages with a net weight content > 300 g, containing one or more of the following substances: perfluorooctane sulfonic acid and its salts; alachlor (ISO); aldicarb (ISO); aldrine (ISO); azinphos-methyl (ISO); binapacril (ISO); camphechlor (ISO) (toxaphene); capitafol (ISO); chlordane (ISO); chlordimeform (ISO); chlorobenzylate (ISO); mercury compounds; tributyltin compounds; 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane); 4,6-dinitro-o-cresol (DNOC (ISO)) or its salts; dinoseb (ISO), its salts or esters; ethylene dibromide (ISO) (1,2-dibromoethane); ethylene dichloride (ISO) (1,2-dichloroethane); dieldrin (ISO, DCI); endosulfan (ISO); penta- and octabromodiphenyl ethers; fluoroacetamide (ISO); perfluorooctanesulfonyl

					Quantities (tonnes)			
Substance name or group of substances	Substance name (when part of a group)	EC number	CAS number	Year	Manufactured	Imported	Placed on the market	Additional information
								fluoride; heptachlor (ISO); hexachlorobenzene (ISO); 1,2,3,4,5,6-hexachlorocyclohexane (HCH (ISO)), including lindane (ISO, INN); methamidophos (ISO); monocrotophos (ISO); oxirane (ethylene oxide); parathion (ISO); methyl parathion (ISO) (methyl parathion); pentachlorophenol (ISO), its salts or esters; perfluorooctane sulfonamides; phosphamidon (ISO); 2,4,5-T (ISO) (2,4,5-trichlorophenoxyacetic acid), its salts or esters, tributyltin compounds; trichlorfon (ISO)"corresponding to CN Code 38085900 = 224 428 kg

Section 1.2 Quantities manufactured and placed on the market per specific use

No further information on the uses of the substances manufactured and/or placed on the market in Portugal. The provision of this information in the national report is considered as optional.

Section 2. Stockpiles notified in accordance with Article 5(2)

In accordance with Article 5(2) of Regulation (EU) No 2019/1021, the holder of a stockpile greater than 50 kg, consisting of or containing any substance listed in Annex I or II, and the use of which is permitted shall provide the competent authority of the Member State in which the stockpile is established with information concerning the nature and size of that stockpile. Such information shall be provided within 12 months of the date that this Regulation or Regulation (EC) No 850/2004 became applicable to that substance, whichever date came first for the holder, and of relevant amendments to Annex I or II and annually thereafter until the deadline specified in Annex I or II for the restricted use.

The POPs Regulation defines 'Stockpile' as substances, mixtures or articles accumulated by the holder that consist of or contain any substance listed in Annex I or II.

The competent authority(ies) from Portugal have not received any notifications of stockpiles in accordance with Article 5(2) of Regulation (EC) No 850/2004.

Section 3. Releases to the environment of unintentionally produced POPs

In line with the Protocol and the Convention, releases of POPs which are unintentional by-products of industrial and other anthropogenic thermal processes (e.g. residential combustion) should be identified and reduced as soon as possible, with the ultimate aim of eliminating the emissions, where feasible.

As set out in Article 6 of the POPs Regulation, the Member States draw up and maintain inventories for the substances listed in Annex III (see below) released into air, water and land, in accordance with their obligations under the Convention and the Protocol. Member States report on their action plans for reducing emissions of unintentionally formed POPs in their national implementation plans (see section 8).

ANNEX III - List of substances subject to release reduction provisions

Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF)
Polychlorinated biphenyls (PCB)
Hexachlorobenzene (HCB) (CAS No 118-74-1)
Polycyclic aromatic hydrocarbons (PAHs)
Pentachlorobenzene (CAS No 608-93-5)
Hexachlorobutadiene (CAS No 87-68-3)
Polychlorinated naphthalenes (CAS No 70776-03-3 and others)

The reporting obligations for releases of unintentionally produced POPs is, in addition to the POPs Regulation, governed by other international, EU and national policy frameworks. Consequently, Member States and the industry sector report data on releases to various institutions, and the data is published in different databases and websites.

In the sections below, it is described which releases are reported where, and by whom and links are provided to the relevant data and reports.

The information on releases provided by the Member States to ECHA, and included in their national reports, does not include inventories which are reported in accordance with the Protocol and/or the European Pollutant Release and Transfer Register (E-PRTR) in publicly available databases (see below for more detail).

Estimates on releases to air reported by Portugal under the Protocol.

The European Union and its Member States report estimates of PCDD/PCDF, PCB, HCB and PAHs released to air to the European Environmental Agency (EEA) and the European Monitoring and Evaluation Programme - Centre on Emission Inventories and Projection (EMEP-CEIP) in accordance with the obligations under the Protocol.

Emission time trends in Europe of HCB, PCB, PCDD/PCDF and PAHs to air can be found as interactive graphs and tables in the EEA webpage below:

<https://www.eea.europa.eu/data-and-maps/indicators/eea32-persistent-organic-pollutant-pop-emissions-1/assessment-10>

“Persistent organic pollutants emissions in Europe” is an EEA indicator. The EEA publishes information about emission reduction of POPs to air in the EU, as well as in individual Member States, which can be accessed here:

<http://www.eea.europa.eu/ims/persistent-organic-pollutant-emissions-in-europe>

Emission data for Portugal displayed as a time trend for the substances below can also be found from the respective links to the EMEP-CEIP Data viewer.

[PCCD/PCDF](#) [PAHs](#) [PCBs](#) [HCB](#)

Additional reports, as well as information on the review process of emission inventories under LRTAP Convention can be found in the CEIP webpage (<https://www.ceip.at/>).

The annual emission data reported by the Member States and the EU under the Protocol (Inventory files NFR), as well as the informative inventory reports (IIRs) can be downloaded from the EMEP-CEIP webpage (see annual submissions at the top of the page to view the overview table). The IIRs provide detailed information about the reported data, including explanations of pollutant trends and key sources of emission. In addition to POPs, emission data on other air pollutants covered by the different Protocols to the CLRTAP, such as heavy metals, nitrogen oxides and sulphur oxides, are also reported

<https://www.ceip.at/status-of-reporting-and-review-results>

The database (mdb file) of annual emission data for the EU Member States can also be downloaded from the EEA webpage:

<https://www.eea.europa.eu/data-and-maps/data/national-emissions-reported-to-the-convention-on-long-range-transboundary-air-pollution-lrtap-convention-15>

The EMEP/EEA air pollutant emission inventory guidebook provides guidance on estimating emissions of POPs and other air pollutants from both anthropogenic and natural emission sources and is designed to facilitate reporting of comparable and consistent air pollutant emissions inventory data.

<https://www.eea.europa.eu/publications/emep-eea-guidebook-2019>

Estimates on releases to air reported by Portugal under the Convention

The Member States report data on unintentional releases to air water and land to the Convention. In order to assist the preparation of the inventories on releases, the Convention has developed The Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs. The data on emissions reported to the Convention can be accessed through the Convention Reporting Dashboard and the national report database.

http://ers.pops.int/eRSodataReports2/ReportSC_DashBoard.html

<http://chm.pops.int/Countries/Reporting/NationalReports/tabid/3668/Default.aspx>

Additional information on emissions of POPs reported by industrial facilities under the E-PRTR

The Regulation (EC) No 166/2006 on the establishment of a European Pollutant Release and Transfer Register (the E-PRTR Regulation) has established a publicly accessible electronic database containing key environmental data from industrial facilities in Europe. The European Industrial Emissions Portal provides easily accessible data on emissions reported under the E-PRTR. The portal replaced the E-PRTR website in June 2021.

<https://industry.eea.europa.eu/>

All Annex III POPs are covered by the E-PRTR, for a list of pollutants with their description, characteristics and reporting thresholds visit the Pollutants page of the European Industrial Emissions Portal. The legal reporting requirements are defined in the Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC.

Additional data on on emissions of POPs:

No further data on emission of substances listed in Annex III to the POPs Regulation is available in Portugal.

Section 4. Monitoring data on POPs available in IPCHEM

The CA on POPs from Portugal has not indicated in their report whether environmental monitoring data on substances listed in Part A of Annex III of the POPs regulation has been made available in IPCHEM. Nevertheless, data collections covering POPs in Portugal might be available in the platform. Further information can be found in:

<https://ipchem.jrc.ec.europa.eu>

Section 5. Art. 7(4)(b)(iv) notifications on the derogation for waste treatment

In accordance with Article 7(2) of the POPs Regulation, notwithstanding Council Directive 96/59/EC on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT), waste consisting of, containing or contaminated by any substance listed in Annex IV to the POPs Regulation shall be disposed of or recovered, without undue delay and in accordance with Part 1 of Annex V to the POPs Regulation, in such a way as to ensure that the POP content is destroyed or irreversibly transformed so that the remaining waste and releases do not exhibit the characteristics of POPs.

As specified in Article 7(4), by way of derogation from the second paragraph of Article 7, a Member State or the competent authority designated by that Member State may, in exceptional cases, allow wastes listed in Part 2 of Annex V containing or contaminated by a substance listed in Annex IV up to concentration limits specified in Part 2 of Annex V to be otherwise dealt with in accordance with a method listed in Part 2 of Annex V, provided that the following conditions are fulfilled.

- (i) the holder concerned has demonstrated to the satisfaction of the competent authority of the Member State concerned that decontamination of the waste in relation to substances listed in Annex IV was not feasible, and that destruction or irreversible transformation of the POP content, performed in accordance with best environmental practice or best available techniques, does not represent the environmentally preferable option and the competent authority has subsequently authorised the alternative operation;
- (ii) the holder concerned has provided information on the POP content of the waste to the competent authority;
- (iii) the operation is in accordance with relevant Union legislation and with the conditions laid down in relevant additional measures referred to in paragraph 5;
- (iv) the Member State concerned has informed the other Member States, the Agency and the Commission of its authorisation and the justification for it.

No authorisation for the derogation on the treatment of waste in accordance for the Article 7(4)(b)(i) have been granted by Portugal.

Section 6. Enforcement - controls, infringements and enforcement measures

In order to ensure transparency, impartiality and consistency at the level of enforcement activities, Member States should lay down rules on penalties applicable to infringements of the POPs Regulation and ensure that they are implemented. Those penalties should be effective, proportionate and dissuasive, since non-compliance can result in damage to human health and to the environment.

The Member States are responsible for the enforcement of the POPs Regulation. In this section, the number of official controls carried out by Portugal in which the POPs regulation was covered, the number of cases of non compliance and enforcement measures are presented. The information on numbers of controls was reported by the Member States in their reports submitted under Art 13(1) of the POPs Regulation. The template for reporting the information on controls was agreed with the Forum for Exchange of Information on Enforcement.

Controls are understood as inspections or investigations or monitoring, or other enforcement measures carried out by enforcement authorities. Therefore, the number of controls takes into account the total number of enforcement related activities carried out by Portugal. Controls can relate to products (substances, articles, mixtures) in case of controlling some requirements (for instance restrictions on the manufacturing, placing on the market and use) and to duty holders in case of controlling other requirements (e.g. stockpiles).

Table 3. Number of official controls carried out by Portugal in which the POPs regulation was covered and the number cases of non-compliance.

Year	Total number of controls in which the POPs Regulation was covered and/or enforced	Number of official controls which addressed the following requirements:			Number of cases of non-compliance found for each of the following requirements (out of the total number of controls which addressed each requirement)	
		Manufacturing, placing on the market and use (Art. 3)	Stockpiles (Art. 5)	Waste management (Art. 7)	Stockpiles (Art. 5)	Waste management (Art. 7)
2,019	388	N/A	N/A	N/A	N/A	N/A
2,020	354	N/A	N/A	N/A	N/A	N/A
2,021	292	N/A	N/A	N/A	N/A	N/A
2,022	320	N/A	N/A	N/A	N/A	N/A

Note: The summed number of controls addressing the specific duties listed on the table does not have to equal the total number of controls for that year as there may also be controls of other duties under the POPs Regulation and overlap of provisions controlled within one interaction (inspection, desktop assessment etc.).

Data from the controls from the year preceding the publication of the report might be updated as new information becomes available to Portugal.

Table 3. Number of official controls in Portugal which resulted in no measures or enforcement actions.

Year	No measures	Verbal advice	Written advice	Public announcement	Admin. measures /orders	Withdrawal/recall of products from the market, confiscation or seizure, ban of sale/use, destruction of non-compliant products or waste	Fines	Suspension or revocation of business license	Imprisonment	Other legal enforcement action
2,019	0	0	0	0	0	0	0	0	0	0: 0
2,020	0	0	0	0	0	0	0	0	0	0: 0
2,021	0	0		0	0	0	0	0	0	0: 0
2,022	0	0	0	0	0	0	0	0	0	0: 0

Data from the controls in the year preceding the publication of the report might be updated as new information becomes available to the Member States.

Section 7. Sites contaminated with POPs

The Member States can optionally include in this section information concerning sites contaminated with POPs located in their country.

Section 8. National implementation plans

The national implementation plan (NIP) and its subsequent updates are prepared by the EU and its Member States in accordance with its obligations under the Stockholm Convention. The NIPs are publicly available in the Convention webpage:

<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>

Table 4. Status of the initial NIP from Portugal and its subsequent updates.

	Status	Mechanisms for public participation during the development of the NIP
Initial NIP	Transmitted to the SC	Yes
Update addressing COP 4 amendments	Under development	
Update addressing COP 5 amendments	Under development	
Update addressing COP 6 amendments	Under development	
Update addressing COP 7 amendments	Under development	
Update addressing COP 8 amendments	Under development	
Update addressing COP 9 amendments	Under development	
Update addressing COP 10 amendments	Under development	
Update addressing COP 11 amendments	Under development	
Update addressing COP 12 amendments	Under development	

Section 9. Provision of technical and financial assistance

In accordance with Articles 12 and 13 of the Convention, the Commission and the Member States shall cooperate in providing appropriate and timely technical and financial assistance to developing countries and countries with economies in transition to assist them, upon request and within available resources and taking into account their particular needs, to develop and strengthen their capacity to fully implement their obligations under the Convention. Such support may also be channeled through Regional Centres, as identified under the Convention, non-governmental organisations or the European Chemicals Agency.

The task of regional and subregional centres (SCRCs) established by the Stockholm Convention is to provide technical assistance and to promote the transfer of technology to developing country Parties and Parties with economies in transition relating to the implementation of their obligations under the Convention. Information on their work plans and activity reports is available in the Convention website.

<http://chm.pops.int/Partners/RegionalCentres/Overview/tabid/425/Default.aspx>

Additional financial/technical assistance to third countries is also provided through multilateral channels such as the Global Environmental Facility (GEF), the Stockholm Convention Trust funds, Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme, or the UN Special Programme. The financial contribution of the MS to the different instruments, as well as information about the projects founded is publicly available on the following websites:

- The GEF Projects database. Focal area: Chemicals and Waste. The GEF provides funding to assist developing countries in meeting the objectives of international environmental conventions. The GEF serves as a "financial mechanism" to the Stockholm Convention on Persistent Organic Pollutants (POPs).

https://www.thegef.org/projects-operations/database?f%5B0%5D=focal_areas%3A2206

- The SAICM Quick Start Programme Projects:

<http://www.saicm.org/QuickStartProgramme/Projects/tabid/5470/language/en-US/Default.aspx>

- The UN Special (chemical and waste) programme projects database:

<https://www.unenvironment.org/explore-topics/chemicals-waste/what-we-do/special-programme/special-programme-projects-database>

The Member States can optionally include in this section further information on the provision of financial and technical assistance to third countries.

Section 10. Information exchange measures and awareness programmes

In accordance with Article 11(2) of the POPs Regulation, the Commission, the European Chemicals Agency and the Member States, as appropriate, shall promote and facilitate with regard to POPs:

- (a) awareness programmes, including relating to their health and environmental effects and their alternatives and on the reduction or elimination of their manufacture, use and release, especially for:
 - (i) policy- and decision-makers;
 - (ii) particularly vulnerable groups;
- (b) the provision of public information;
- (c) training, including workers, scientists, educators and technical and managerial personnel.

The Member States can optionally report on their information exchange activities under this section.

Table 5. Information exchange activities carried out by Portugal.

General description of the measure	Type of measure	Webpage (copy the URLs in your browser)	Period
Additional communication mechanisms to the public were developed, namely via website (eg PCB). APA annually prepares and makes available, on its portal, a report on PCB, based on the information contained in the National PCB Inventory	The provision of public information	https://apambiente.pt/prevencao-e-gestao-de-riscos/inventario-nacional-de-pcb	
An online form for reporting data on waste containing POPs is being prepared			
As part of the PRTR application, a public disclosure page has been prepared in order to facilitate access and dissemination of the broadcasts.	The provision of public information	https://apambiente.pt/avaliacao-e-gestao-ambiental/registo-de-emissoes-e-transferencia-de-poluentes-prtr	
Awareness and training, namely at the level of PCBs, included the awareness-raising obligations attributed to the managing entities of certain specific waste streams (eg used oils, end-of-life vehicles, waste electrical and electronic equipment) and respective monitoring	Awareness programme, and Training of workers, scientists, educators and technical and managerial personnel with regard to persistent organic pollutants		

Table 5. Information exchange activities carried out by Portugal.

General description of the measure	Type of measure	Webpage (copy the URLs in your browser)	Period
Raising awareness among producers of waste containing POPs and managing entities of certain specific flows, with regard to the obligations arising from the POPs Regulation, which led to the launch of some projects for the determination of POPs in waste.	Awareness programme		

Appendix A. Stockpile notifications

The competent authority(ies) from Portugal have not received any notifications of stockpiles in accordance with Article 5(2) of Regulation (EC) No 850/2004.

Appendix B. Releases to the environment of unintentionally produced POPs - additional data

No further data on emission of substances listed in Annex III to the POPs Regulation is available in Portugal.

Appendix C. Art. 7(4)(b)(iv) notifications

No authorisation for the derogation on the treatment of waste in accordance for the Article 7(4)(b)(i) have been granted by Portugal.