

Capacity building on compliance with chemicals legislation,
with emphasis on REACH/CLP linked to Industrial Emission
Directive – Technical aspects
ECRAN - 60146

POP and PIC Conventions



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Countries move forward on important issues for sustainable management of chemicals and waste



"From Science to Action: Working for a Safer Tomorrow"
from **4 to 15 May 2015**, almost 1,200 participants from 171
countries converged on Geneva to push forward the chemicals
and waste agenda at this biennial event.

Four new listings = three under the **Stockholm** and one under
the **Rotterdam** Conventions –

- Polychlorinated naphthalenes,
 - Hexachlorobutadiene,
 - Pentachlorophenol and its salts and esters;
- and
- **Methamidophos.**



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New listings 2015

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Polychlorinated naphthalenes, Hexachlorobutadiene, and Pentachlorophenol and its salts and esters, are persistent organic pollutants (POPs) posing serious threats to human health and the environment.

Methamidophos is an extremely toxic organophosphate insecticide, causing serious adverse effects to human health, particularly to neural, immunity and reproductive systems.



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Stockholm Convention

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The Convention covers 23 priority POPs produced both intentionally and unintentionally (e.g. by sources like waste incinerators).

These are: aldrin, chlordane, chlordecone, dichlorodiphenyltrichlorethane (DDT), dieldrin, endrin, heptachlor, hexabromobiphenyl, hexabromocyclododecane, hexabromodiphenyl ether and heptabromodiphenyl ether, hexachlorobenzene (HCB), alpha hexachlorocyclohexane, beta hexachlorocyclohexane, lindane, mirex, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, polychlorinated dibenzo-p-dioxins (PCDD), polychlorinated dibenzofurans (PCDF), polychlorobiphenyls (PCBs), technical endosulfan and its related isomers, tetrabromodiphenyl ether and pentabromodiphenyl ether, and toxaphene.



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ROTTERDAM CONVENTION

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Search

The Convention > Chemicals > Annex III Chemicals

Annex III Chemicals

In this section you will find the list of chemicals contained in Annex III of the Convention and subject to the PIC procedure along with the associated Decision Guidance Documents (DGDs) as well as any additional information.

Chemical	CAS number	Category	Decision Guidance Documents	Information on Annex III chemicals	Import Responses
2,4,5-T and its salts and esters	93-76-5 (*)	Pesticide	English French Spanish	More...	View
Alachlor	15972-60-8	Pesticide	English French Spanish	More...	View
Aldicarb	116-06-3	Pesticide	English French Spanish	More...	View
Aldrin	309-00-2	Pesticide	English French Spanish	More...	View
Azinphos-methyl	86-50-0	Pesticide	English French Spanish	More...	View
Binapacryl	485-31-4	Pesticide	English French Spanish	More...	View
Captan	2425-06-1	Pesticide	English French Spanish	More...	View
Chlordane	57-74-9	Pesticide	English French Spanish	More...	View
Chlordimeform	6164-98-3	Pesticide	English French Spanish	More...	View

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[Chemicals in our Life](#)
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ECHA > Information on Chemicals > Chemicals subject to PIC

[Chemicals subject to PIC](#)
[Export Notifications](#)
[Import Notifications](#)
[Explicit Consents and Waivers](#)
[Designated National Authority](#)

The section on chemicals subject to PIC includes all chemicals listed in the relevant annexes of the PIC Regulation. Chemicals listed in Part 1 of Annex I are subject to the export notification procedure; chemicals listed in Part 2 of Annex I, in addition to being subject to export notification procedure, qualify also for the PIC notification procedure. Chemicals listed in Part 3 of Annex I, are subject to the full PIC procedure under the Rotterdam Convention.

Annex V lists the chemicals and articles the use of which is prohibited in the European Union and which shall not be exported. Chemicals and articles listed in Part 1 of Annex V are subject to export ban and belong to the category of persistent organic pollutants; Part 2 of Annex V lists chemicals and articles subject to export ban other than persistent organic pollutants.

In addition, other chemicals have been identified that are also subject to the PIC Regulation, as they are members of chemical groups which are explicitly listed in Annex I or V. These chemicals, which are not themselves explicitly listed in a PIC Regulation Annex, are shown in *italics*.

It is possible to search for chemicals based on the Annex and part of the Annex they are listed under, EC and CAS number, chemical name and use category. It is also possible to refine the query by using multiple search filters.

» [Annex V Part 2](#)

Source

☐ Annex I
 ☐ Annex I Part 1
 ☐ Annex I Part 2
 ☐ Annex I Part 3

☐ Annex V
 ☐ Annex V Part 1
 ☐ Other

Use Category

☐ Industrial Chemical
 ☐ Severely Hazardous Formulation
 ☐ Pesticide

Use Limitation

Select...

Chemical / Group Name

EU legislation: Persistent organic pollutants (POPs)

If you are an exporter of products, such as electric transformers or textiles containing flame retardants, you have to make sure that your products do not contain Persistent Organic Pollutants (POPs) that are prohibited in the EU.



Substances	Requirements	Why	How to comply
Persistent Organic Pollutants (POPs); organic compounds, resistant to environmental degradation, e.g. chemical substances such as DDT and PCBs.	Products containing or treated with POPs are forbidden and will be rejected from the EU market.	To reduce the risks for public health and of the environment in the EU.	Make your products do not contain any POPs, or at least do not exceed the set maximum residue level.



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EU Legislation



[Regulation \(EC\) 850/2004](#) on persistent organic pollutants aims to give effect to the main provisions of the Stockholm Convention. This legislation is automatically applicable and harmonised in all EU Member States.

Related legislation:

- **REACH** - Registration, Evaluation, Authorisation and Restriction of Chemicals
- EU Legislation on **Pesticides**
- **Fluorinated Greenhouse Gases** (F-gases) the European Union has adopted two legislative acts: the "MAC Directive" on mobile air conditioning systems used in motor vehicles, and the "F-gas Regulation" which covers all other key applications in which F-gases are used.

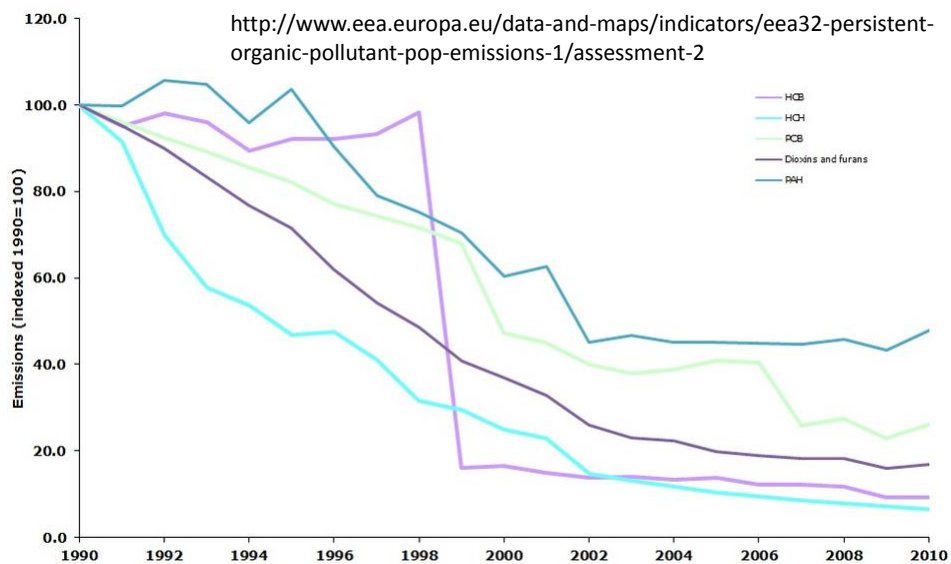


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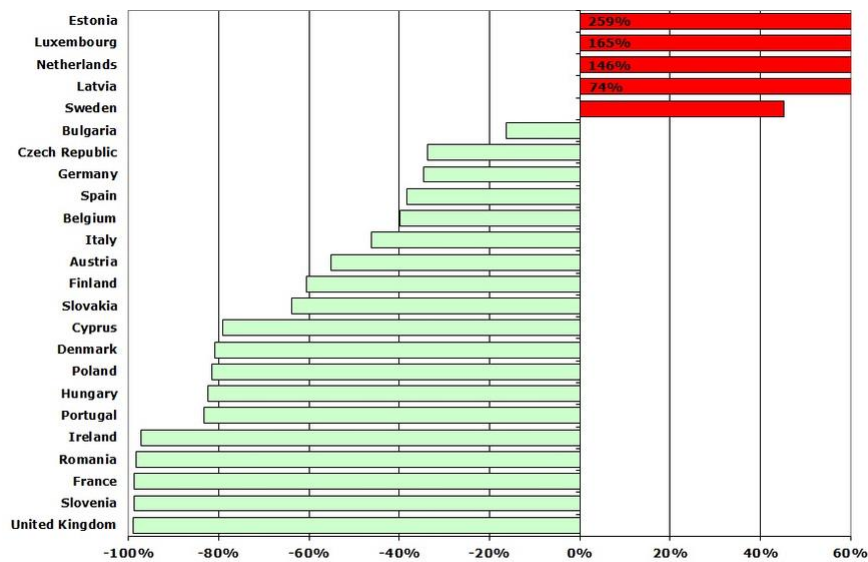


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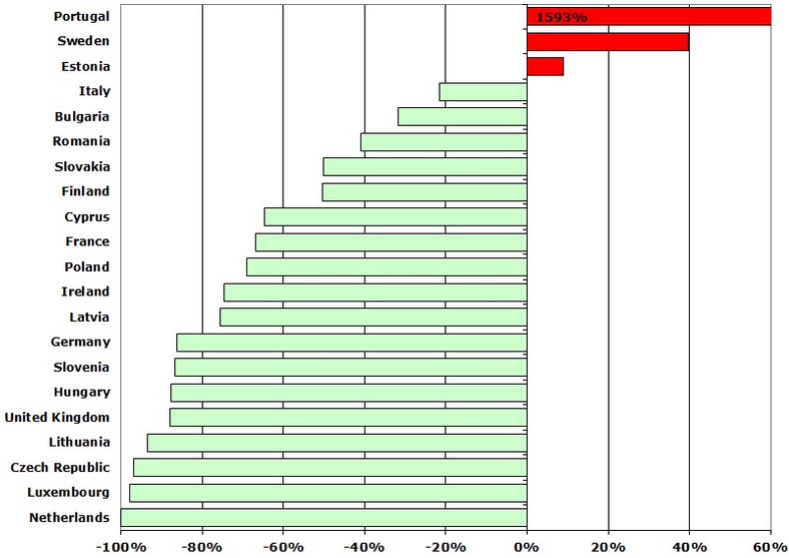
Emission trends of persistent organic pollutants (EEA MS)



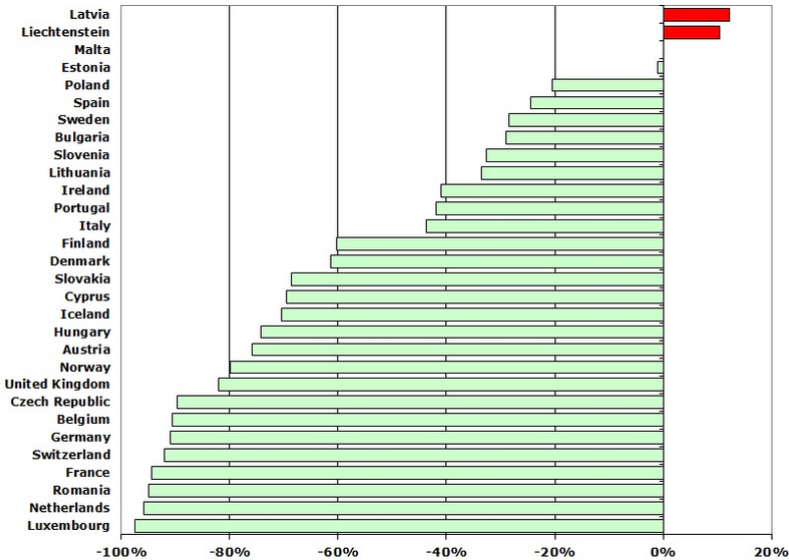
Change (%) in HCB emissions 1990-2010 (EEA MS)



Change (%) in PCB emissions 1990-2010 (EEA MS)



Change (%) in Dioxin & Furan emissions 1990-2010(EEA MS)





Main legal instruments – SC POPs in the EU

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Regulation (EC) No 850/2004 of the European Parliament and Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EC.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) - provisions specifying how substances should be assessed with regard to their POP characteristics. Under REACH, the production and use of substances exhibiting POP characteristics can be prevented and new POP candidates can be identified.

Regulation (EC) No 689/2008 of the European Parliament and Council of 17 June 2008 concerning the export and import of dangerous chemicals (PIC Regulation) prohibits the export of 10 out of the 12 POP substances currently listed in the SC.

Council Directive 96/59/EC of 16 September 1996 on the disposal of PCB/PCT aims to completely dispose of PCBs and equipment containing PCBs as soon as possible and equipment with PCB volumes of more than 5 litres before the end of 2010. It also sets requirements for the environmentally sound disposal of PCBs.

Directive 96/61/EC (the IPPC Directive) lays down control measures to reduce emissions of u-POPs by covering the major industrial stationary sources of these POPs.

Directive 2000/76/EC on the incineration of waste covers all waste incineration facilities that are a very important source of POPs by-products. The Directive sets strict limits for emission rates of dioxins /furans in the air.



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REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

(8) In the future, the proposed REACH Regulation could be an appropriate instrument by which to implement the necessary control measures on production, placing on the market and use of the listed substances and the control measures on existing and new chemicals and pesticides exhibiting persistent organic pollutants' characteristics. However, without prejudice to the future REACH Regulation and since it is important to implement these control measures on the listed substances of the Protocol and the Convention as soon as possible, this Regulation should for now implement those measures.



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Overview: “New” POPs – Stockholm Convention



- Process
- New POPs – Criteria
- Risk Profiles and other info
- Characteristics



First joint meeting of the Chemical Review Committee and the **Persistent Organic Pollutants Review Committee (POPRC)**
20.10.2013, Rome, Italy



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Process for identification and evaluation of new POPs under the Stockholm Convention (Art. 8)

...to find most harmful substances through an agreed procedure and criteria...

Any Party may submit a proposal for listing chemicals

POPs Review Committee (POPRC) to:

- (1) review submissions
- (2) develop risk profiles
- (3) risk management evaluations
- (4) make recommendations to the COP



COP makes decisions, and the Convention is then amended accordingly



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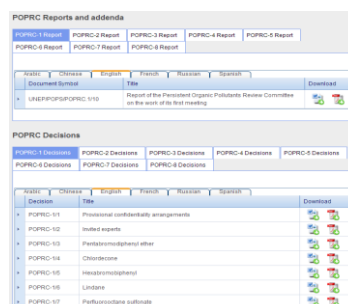


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Persistent Organic Pollutants Review Committee - POPRC

The POPRC is a subsidiary body to the Stockholm Convention established for reviewing chemicals proposed for listing in Annex A, B, and/or C. **Article 8** of the Stockholm Convention entails the reviewing process of new chemicals and **Annex D, E and F** specify the information requires for the review. (see also: Decision [SC-1/7](#) Establishment of the POPRC, [Article 19](#) paragraph 6)

<http://chm.pops.int/TheConvention/POPsReviewCommittee/ReportsandDecisions/tabid/3309/Default.aspx>



Step 1: New proposal for listing

Step 2: Development of risk profile

Step 3: Development of risk management evaluations

Step 4: POPRC recommends to COP to consider listing



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Persistent Organic Pollutants Review Committee - POPRC

The POPRC - 31 government-designated experts from Parties appointed by the COP.
...nominated for a term of 4 years that may be extended once.
To ensure effective rotation of the membership, one half of the members of each region were nominated for an initial term of two years, and the remaining members of each region were nominated for an initial term of four years.



African States: 8

Asian and Pacific States: 8

Central and Eastern European States: 3

Latin American and Caribbean States: 5

Western European and other States: 7



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Step 1. Propose a new chemical

Any party may submit a proposal to the Secretariat for listing a new chemical including information specified in [Annex D](#). The Secretariat forwards the proposal to the POPRC.

Step 2. Apply screening criteria

The POPRC examines the proposal and applies the screening criteria in [Annex D](#).

Step 3. Develop a risk profile

If the POPRC decides that the screening criteria have been fulfilled, the Secretariat invites all Parties and observers to provide technical comments and information specified in [Annex E](#). The POPRC develops a risk profile based on the information.

Step 4. Develop a risk management evaluation

If the POPRC decides on the basis of the risk profile that the proposal shall proceed, the Secretariat invites all Parties and observers to provide technical comments and socio-economic information specified in [Annex F](#). The POPRC develops a risk management evaluation based on the information.

Step 5. List the chemical in Annex A, B, and/or C

The Conference of the Parties decides whether to list the chemical and specifies its related control measures in [Annex A, B, and/or C](#).

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Annex D
(Information requirements and screening criteria)
PROVIDED BY THE SUBMITTING PARTY

- Chemical identity
- Persistence
- Bio-accumulation
- Potential for long-range environmental transport
- Adverse effects

Core data: air, human breast milk
or blood serum...



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Data Submission

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Any Party may submit a proposal for listing a chemical in the SC

- **Hazard assessment** showing POPs characteristics:
- Environmental fate and behaviour;
- Eco-toxicological effects



- Monitoring data suggesting presence of a substance far from **exposure** sources
 - Party has to prepare a dossier containing Annex D information
- Assistance of other Party and / or the Secretariat is possible



Deadline ~4 months before POPRC for practical reasons



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Development of a Risk Profile

If the POPRC decides that the screening criteria have been fulfilled, the POPRC develops a risk profile based on information specified in Annex E provided by Parties and observers.

The Weight of Evidence



Purpose of the risk profile:
To evaluate whether the chemical is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and/or environmental effects, such that global action is warranted.



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UNITED
NATIONS



SC

UNEP/POPS/POPRC.6/13/Add.2

Distr.: General
3 December 2010

Original: English



**Stockholm Convention
on Persistent Organic
Pollutants**

Persistent Organic Pollutants Review Committee
Sixth meeting
Geneva, 11–15 October 2010

**Report of the Persistent Organic Pollutants Review Committee
on the work of its sixth meeting**

Addendum

Risk profile on hexabromocyclododecane

At its sixth meeting, the Persistent Organic Pollutants Review Committee adopted a risk profile on hexabromocyclododecane, on the basis of the draft risk profile contained in document UNEP/POPS/POPRC.6/10. The text of the risk profile, as amended, is set out in the annex to the present addendum. It has not been formally edited.



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Annex D information requirements and screening criteria

- Chemical identity
- **Persistence** (half life in water >2 mt; soil and sediment >6 mt) or other evidence of sufficient persistency
- **Bioaccumulation/bioconcentration** factor in aquatic environment >5000 or log Kow>5; monitoring data
- **Long range transport** as shown by measured levels in areas remote from sources; monitoring data and evidence of transfer between media; as well as modelling information
- **Adverse effects** (evidence of adverse human & env. effect /data indicating the potential for damage to health/environment



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Screening

- POPRC examines the proposal and decides whether screening criteria in Annex D are fulfilled
- For any proposal set aside, a Party may resubmit the proposal to the POPRC for reconsideration
- If the POPRC again sets the proposal aside the Party may challenge the decision and the COP shall consider the matter



Write/Modify

! Data limitations should not prevent the proposal from proceeding



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Review process

Development of Risk Profile

- POPRC invites Parties and observers to submit information specified in **Annex E**
- Ad hoc working group of POPRC prepares **Draft Risk Profile** based on the information
- *Based on the Risk Profile, POPRC evaluates whether the chemical is likely to lead to significant adverse human health or environmental effects, such that global action is warranted*



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Risk Management Evaluation

- POPRC invites Parties and observers to submit information specified in Annex F
- Ad hoc working group of POPRC prepares **Draft Risk Management Evaluation** based on the information
- Based on the **Risk Profile** and **Risk Management Evaluation**, POPRC recommends whether the chemical should be considered by the COP for listing and suggest possible control measures

Comments encouraged!

- ***COP decides on listing the chemical and specifies its related control measures***



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Adoption - Amendment of annexes

Text of the proposed amendment shall be communicated to the Parties at least 6 months before the COP meeting

Adoption: by consensus of the COP

e.g.

Recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction for PFOS, its salts and PFOSF (Decision POPRC-6/2)



Entry into force: one year after adoption

Article 21, 22



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COP 4 (4 to 8 May 2009)

Chemical	Annex	Specific exemption
Chlordecone ●	A	Production: none Use: none
Hexabromobiphenyl ▲	A	Production: none Use: none
Lindane ●	A	Production: none Use: Human health pharmaceutical for control of head lice and scabies as second line treatment
Alpha hexachlorocyclohexane ●/■	A	Production: none Use: none
Beta hexachlorocyclohexane ●/■	A	Production: none Use: none
Tetrabromodiphenyl ether and pentabromodiphenyl ether ▲	A	Production: none Use: Articles in accordance with the provisions of Part IV of Annex A
Hexabromodiphenyl ether and heptabromodiphenyl ether ▲	A	Production: none Use: Articles in accordance with the provisions of Part IV of Annex A
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride ▲	B	Production: for the use below Use: Acceptable purposes and specific exemptions in accordance with Part III of Annex B (see box in page 15 for the list of exemptions)
Pentachlorobenzene ●/▲/■	A and C	Production: none Use: none

● Pesticides / ▲ Industrial chemicals / ■ By-products



Annex A: Parties must take measures to **eliminate** the production and use of the chemicals listed under Annex A. Specific exemptions for use or production are listed in the Annex and apply only to Parties that register for them.

Annex B: Parties must take measures to **restrict** the production and use of the chemicals listed under Annex B in light of any applicable acceptable purposes and/or specific exemptions listed in the Annex.

Annex C: Parties must take measures to reduce the **unintentional releases** of chemicals listed under Annex C with the goal of continuing minimization and, where feasible, ultimate elimination.



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Endosulfan - COP 5 (25 - 29 May 2011)

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Annex A

Endosulfan and its related isomers with a specific exemption

Use: Endosulfan is particularly effective against aphids, fruit worms, beetles, leafhoppers, moth larvae, and white flies on a wide variety of crops.

Endosulfan is sold as a mixture of two different forms. Technical endosulfan is a 2:1 to 7:3 mixture of the α - and β -isomers.

Technical grade endosulfan also contains endosulfan sulfate. It is a cream-to-brown-colored solid that may appear crystalline or in flakes. It has a distinct odor similar to turpentine.

The main target of endosulfan toxicity is the nervous system. Exposure to high amounts of endosulfan induces hyperactivity and convulsions, regardless of the route of exposure. Severe poisoning may result in death. Studies in animals have shown that swallowing endosulfan in contaminated food for long periods of time affects mainly the kidneys.



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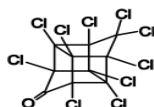
Chlordecone

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Listed under Annex A without specific exemptions.

Chemical identity and properties

Chlordecone is chemically related to Mirex, a pesticide listed in Annex A of the Convention.



CAS No: 143-50-0
Trade name: Kepone® and GC-1189

Use and production

Chlordecone is a synthetic chlorinated organic compound, which was mainly used as an agricultural pesticide. It was first produced in 1951 and introduced commercially in 1958. Currently, no use or production of the chemical is reported.

POPs characteristics of chlordecone

Chlordecone is highly persistent in the environment, has a high potential for bioaccumulation and biomagnification and based on physico-chemical properties and modelling data, chlordecone can be transported for long distances. It is classified as a possible human carcinogen and is very toxic to aquatic organisms.

Replacement of chlordecone

Alternatives to chlordecone exist and can be implemented inexpensively. Many countries have already banned its sale and use. The main objective to phase out chlordecone would be to identify and manage obsolete stockpiles and wastes.



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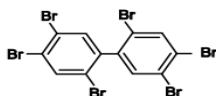
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Hexabromobiphenyl

Listed under Annex A without specific exemptions.

Chemical identity and properties

Hexabromobiphenyl belongs to the group of polybrominated biphenyls, which are brominated hydrocarbons formed by substituting hydrogen with bromine in biphenyl.



CAS No: 36355-01-8
Trade name: FireMaster

Use and production

Hexabromobiphenyl is an industrial chemical that has been used as a flame retardant, mainly in the 1970s. According to available information, hexabromobiphenyl is no longer produced or used in most countries.

POPs characteristics of hexabromobiphenyl

The chemical is highly persistent in the environment, highly bioaccumulative and has a strong possibility for long-range environmental transport. As hexabromobiphenyl is classified as a possible human carcinogen and has other chronic toxic effects, the Committee recommended its listing as a POP.

Replacement of hexabromobiphenyl

Alternatives are available for all uses of hexabromobiphenyl, so prohibiting its use and production is feasible and inexpensive. This chemical is already subject to several national and international regulations, restricting its use and production.

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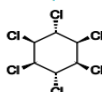
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Lindane

Listed under Annex A with a specific exemption for use as a human health pharmaceutical for control of head lice and scabies as second line treatment.

Chemical identity and properties

Lindane is the common name for the gamma isomer of hexachlorocyclohexane (HCH). Technical HCH is an isomeric mixture that contains mainly five forms, namely alpha-, beta-, gamma-, delta- and epsilon-HCH.



Lindane (gamma-HCH)
CAS No: 58-89-9

Use and production

Lindane has been used as a broad-spectrum insecticide for seed and soil treatment, foliar applications, tree and wood treatment and against ectoparasites in both veterinary and human applications.

The production of lindane has decreased rapidly in the last few years and only few countries are still known to produce lindane.

POPs characteristics of lindane

Lindane is persistent, bioaccumulates easily in the food chain and bioconcentrates rapidly. There is evidence for long-range transport and toxic effects (immunotoxic, reproductive and developmental effects) in laboratory animals and aquatic organisms.

Replacement of lindane

Alternatives for lindane are generally available, except for use as a human health pharmaceutical to control head lice and scabies. Regulations on the production, use and monitoring of lindane already exist in several countries.

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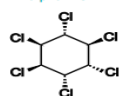
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Alpha hexachlorocyclohexane and beta hexachlorocyclohexane

Listed under Annex A without specific exemptions.

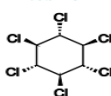
Chemical identity and properties

alpha-HCH



CAS No: 319-84-6

beta-HCH



CAS No: 319-85-7

Use and production

Although the intentional use of alpha- and beta-HCH as an insecticide was phased out years ago, these chemicals are still produced as unintentional by-products of lindane. For each ton of lindane produced, around 6-10 tons of the other isomers including alpha- and beta-HCH are created. Large stockpiles of alpha- and beta-HCH are therefore present in the environment.

POPs characteristics of alpha- and beta-HCH

Alpha- and beta-HCH are highly persistent in water in colder regions and may bioaccumulate and biomagnify in biota and arctic food webs. These chemicals are subject to long-range transport, are classified as potentially carcinogenic to humans and adversely affect wildlife and human health in contaminated regions.

Replacement of alpha- and beta-HCH

Today, alpha- and beta-HCH are only produced unintentionally during the production of lindane. Releases also occur from stockpiles and contaminated sites.



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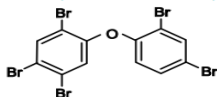
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Tetrabromodiphenyl ether and pentabromodiphenyl ether

Listed under Annex A with a specific exemption for use as articles containing these chemicals for recycling in accordance with the provision in Part IV of Annex A.

Chemical identity and properties

Tetrabromodiphenyl ether and pentabromodiphenyl ether are the main components of commercial pentabromodiphenyl ether.

CAS No: 40088-47-9
32534-81-9

POPs characteristics of tetraBDE and pentaBDE

Commercial mixture of pentaBDE is highly persistent in the environment, bioaccumulative and has a high potential for long-range environmental transport. These chemicals have been detected in humans in all regions. There is evidence of its potential for toxic effects in wildlife, including mammals.

Replacement of tetraBDE and pentaBDE

Alternatives are available and used to replace these substances in many countries, although they might also have adverse effects on human health and the environment. Alternatives might not be available for use in military airplanes. The identification and also handling of equipment and wastes containing brominated diphenyl ethers is considered a challenge.

Polybromodiphenyl ethers

Polybromodiphenyl ether congeners including tetraBDE, pentaBDE, hexaBDE, and heptaBDE inhibit or suppress combustion in organic materials and therefore are used as additive flame retardants.



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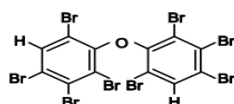
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Hexabromodiphenyl ether and heptabromodiphenyl ether

Listed under Annex A with a specific exemption for use as articles containing these chemicals for recycling in accordance with the provision in Part IV of Annex A.

Chemical identity and properties

Hexabromodiphenyl ether and heptabromodiphenyl ether are the main components of commercial octabromodiphenyl ether.



CAS No: 68631-49-2
207122-15-4
446255-22-7
207122-16-5

POPs characteristics of hexaBDE and heptaBDE

Commercial mixture of octaBDE is highly persistent, has a high potential for bioaccumulation and food-web biomagnification, as well as for long-range transport. The only degradation pathway is through debromination and producing other bromodiphenyl ethers.

Replacement of hexaBDE and heptaBDE

Alternatives generally exist and there is no information about any current production. However, it is reported that many articles in use still contain these chemicals.

Debromination and precursors

Polybromodiphenyl ethers can be subject to debromination, i.e. the replacement of bromine on the aromatic ring with hydrogen.

Higher bromodiphenyl ether congeners may be converted to lower, and possibly more toxic, congeners. The higher congeners might therefore be precursors to the tetraBDE, pentaBDE, hexaBDE, or heptaBDE.



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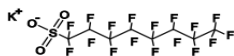
ECRAN

Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F)

Listed under Annex B with acceptable purposes and specific exemptions.

Chemical identity and properties

PFOS is a fully fluorinated anion, which is commonly used as a salt or incorporated into larger polymers. PFOS and its closely related compounds, which may contain PFOS impurities or substances that can result in PFOS, are members of the large family of perfluoroalkyl sulfonate substances.



Use and production

PFOS is both intentionally produced and an unintended degradation product of related anthropogenic chemicals. The current intentional use of PFOS is widespread and includes: electric and electronic parts, fire fighting foam, photo imaging, hydraulic fluids and textiles. PFOS is still produced in several countries.

POPs characteristics of PFOS

PFOS is extremely persistent and has substantial bioaccumulating and biomagnifying properties, although it does not follow the classic pattern of other POPs by partitioning into fatty tissues but instead binds to proteins in the blood and the liver. It has a capacity to undergo long-range transport and also fulfills the toxicity criteria of the Stockholm Convention.

Replacement of PFOS

While alternatives to PFOS are available for some applications, this is not always the case in developing countries where existing alternatives may need to be phased in. For some applications like photo imaging, semi-conductor or aviation hydraulic fluids, technically feasible alternatives to PFOS are not available to date.



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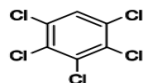
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Pentachlorobenzene (PeCB)

Listed under Annex A without specific exemptions and under Annex C.

Chemical identity and properties

PeCB belongs to a group of chlorobenzenes that are characterized by a benzene ring in which the hydrogen atoms are substituted by one or more chlorines.



CAS No: 608-93-5

Use and production

PeCB was used in PCB products, in dyestuff carriers, as a fungicide, a flame retardant and as a chemical intermediate e.g. previously for the production of quinoxaline. PeCB might still be used as an intermediate. PeCB is also produced unintentionally during combustion, thermal and industrial processes. It also present as impurities in products such as solvents or pesticides.



POPs characteristics of PeCB

PeCB is persistent in the environment, highly bioaccumulative and has a potential for long-range environmental transport. It is moderately toxic to humans and very toxic to aquatic organisms.

Replacement of PeCB

The production of PeCB ceased some decades ago in the main producer countries as efficient and cost-effective alternatives are available. Applying Best Available Techniques and Best Environmental Practices would significantly reduce the unintentional production of PeCB.



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Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Share Responsibility



ROTTERDAM CONVENTION



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Scope of the Convention

Applies to:

- Chemicals *banned or severely restricted* to protect human health or the environment
- *Severely hazardous pesticide formulations* (SHPF)
 - causing problems under conditions of use in developing countries or countries with economies in transition



ROTTERDAM CONVENTION



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Key Provisions

- **PIC procedure** - Provides for a national decision making process on import of hazardous chemicals in Annex III and attempts to ensure compliance with these decisions by exporting Parties
- **Information exchange** - the exchange of information on a broad range of potentially hazardous chemicals



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Overview of Annexes

<u>Annex I</u>	Information requirements for notifications made pursuant to Article 5
<u>Annex II</u>	Criteria for listing banned or severely restricted chemicals in Annex III
<u>Annex III</u>	Chemicals subject to the PIC procedure
<u>Annex IV</u>	Information and criteria for listing severely hazardous pesticide formulations in Annex III
<u>Annex V</u>	Information requirements for export notification
<u>Annex VI</u>	Settlement of Disputes



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 + CLP
 + Biocidal Products Regulation
 - Prior Informed Consent Regulation
 > Understanding PIC

List of chemicals: Annex I

The PIC Regulation applies to a list of entries (for individual chemicals or groups of chemicals), which are included in Annex I, and to mixtures containing such chemicals in a concentration that triggers labelling obligations under the CLP Regulation (EC) No 1272/2008 (irrespective of the presence of any other substance), as well as to articles containing these chemicals in an unreacted form.

This list is updated regularly as a result of regulatory actions under EU legislation, and developments under the Rotterdam Convention. It is divided into three parts that define the different obligations applied to the chemicals.

Part 1

See also

- > [List of Chemicals Annex I](#)
You can filter by the relevant Part of Annex I
- > [Annex III to the Rotterdam Convention](#)
- > [PIC - Import Responses Database](#)
- > [Waiver information sheet](#)



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Part 1

These entries are subject to the export notification procedure. This comprises all of the chemicals that are banned or severely restricted within the EU in at least one of the four use subcategories defined in the PIC Regulation:

- Industrial chemicals for professional use
- Industrial chemicals for consumer use
- Pesticides used as plant protection products
- Other pesticides such as biocidal products

Part 2

Apart from the export notification requirement, the entries in part 2 are subject to the additional requirement of the exporter's DNA receiving a statement from the authorities of the importing country to show that they agree to the import. This is called explicit consent. These chemicals qualify for PIC notification under the Rotterdam Convention because they are banned or severely restricted within the EU in one of the two use categories defined by the Rotterdam Convention: pesticide or industrial chemical.

Part 3

The entries in part 3 are subject to the export notification requirement, and additionally to the explicit consent, except where an import response is published in the PIC circular of the Rotterdam Convention, and certain criteria are met.

These are the chemicals subject to the PIC procedure as described in the Rotterdam Convention, and are listed in Annex III to the Convention itself.



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Key Players

1. Designated National Authorities (DNAs)
2. Conference of the Parties (COP)
3. Chemical Review Committee (CRC)
4. Secretariat



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1. Designated National Authorities

- Generally government departments responsible for policy decisions and regulation of pesticides or industrial chemicals
- Key contact point for the secretariat regarding the implementation of the convention
- Responsible for coordinating actions at the national level to ensure compliance with the Convention e.g. government ministries, exporters, importers, customs authorities



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2. Conference of the Parties (COP)

- Highest authority of the Convention
- Oversees the implementation of the Convention
 - including policy issues, programme of work and budget, inclusion of chemicals in Annex III, establishes subsidiary bodies
- Meets every two years
 - COP 4, October 2008



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3. Chemical Review Committee (CRC)

- Composed of government designated experts in chemicals management
- Reviews notifications of final regulatory actions and proposals from Parties
- Makes recommendations to COP on the addition of chemicals to Annex III



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CHEMICAL REVIEW COMMITTEE

31 members distributed as follows:

- 8 African States
- 8 Asian and Pacific States
- 3 Central and Eastern European States
- 5 Latin American and Caribbean States
- 7 Western European and other States



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4. Secretariat

- Provided jointly by UNEP and FAO
 - Convenes meetings of the COP and CRC
 - Facilitates assistance to Parties in implementation of the Convention
 - Coordinates with regional and international partners
- Unique example of cooperation between UN organizations



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Key Provisions

- **PIC procedure** - Provide for a national decision making process on import of hazardous chemicals in Annex III and to ensure compliance with these decisions by exporting Parties
- **Information exchange** - the exchange of information on a broad range of potentially hazardous chemicals



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Key provision: PIC Procedure

Key elements

- Decision Guidance Documents (DGD)
- Import response
- PIC Circular
- Responsibilities of importing and exporting Parties



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Key provision: PIC Procedure

Decision Guidance Documents (DGD)

- describes the reasons for national actions to ban or severely restrict the chemical that were the basis for the chemical being listed in Annex III
- lists what uses have been prohibited and what if any uses remain in the notifying Parties as well as information on alternatives
- contains basic information about the chemical including a summary of the principal toxicological and eco-toxicological properties
- further sources of information including evaluations from internationally recognized sources e.g. WHO/IPCS



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Key provision: PIC Procedure

Import response (Article 10)

shall consist of either:

Final decision

- to consent to import
- not to consent to import
- to consent subject to specified conditions

Interim response, including

- an interim decision to import or not to import
- a statement that a final decision is under consideration
- a request for further information
- a request for assistance in evaluating the chemical



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Key provision: PIC Procedure

PIC CIRCULAR (Articles 10 and 11)

- Issued every six months, December and June, sent to all DNAs and posted on website
- Provides Parties with listing of all import decisions
- Updated list of Designated National Authorities
- Key document - basis for compliance with the import decisions



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Key provision: PIC Procedure

Importing Party Responsibilities

Article 10

- ensure that importers, relevant authorities and where possible users are informed of import responses received
- ensure that import decisions apply uniformly to imports from all exporting countries and
- to any domestic manufacturing of the chemical for domestic use



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Key provision: PIC Procedure

Exporting Party Responsibilities

Articles 11 & 13

- implement legislative and administrative measures to communicate import decisions within its jurisdiction
- take appropriate measures to ensure that exporters comply with import decisions
- ensure appropriate labeling and information accompanies exports



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Key provision: PIC Procedure

Exporting Party Responsibilities

Advise and assist importing Parties

- to obtain further information to help them make import decisions
- to strengthen their capacities and capabilities to manage chemicals safely



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Key provision: PIC Procedure

SUMMARY

1. COP decides to make a chemical subject to the PIC Procedure
2. Secretariat circulates a DGD to all Parties
3. Parties submit import response for each chemical
4. Secretariat circulates all import responses to all Parties through the PIC Circular
5. Parties follow up on import / export responsibilities



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Key provision: Information Exchange

Mechanism for the exchange of information on a broad range of potentially hazardous chemicals

- any chemical that is banned or severely restricted to protect human health or the environment
- severely hazardous pesticide formulations causing problems under the conditions of use



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Rotterdam Convention



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Key provision: Information Exchange

Key Elements

- PIC Circular
- Export notifications
- Information to accompany export



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Key provision: Information Exchange

PIC Circular (Articles 10 & 11)

- issued every six months, December and June, sent to all DNAs and posted on website
- summaries of notifications of regulatory actions to ban or severely restrict a chemical
 - reasons for the ban or severe restriction
- summaries of proposals for severely hazardous pesticide formulations
 - description of the conditions of use



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Key provision: Information Exchange

Export notification (Article 12)

- Notify importing Party when exporting a chemical that is banned or severely restricted in its territory
 - first shipment annually
 - notification includes information in Annex V
- Importing DNA can request any information from Annex I which will have been summarized in PIC Circular



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Key provision: Information Exchange

Information to accompany export

(Article 13)

- ensure adequate labeling with regard to human health or environmental risks taking into account international standards
- accompanied by a safety data sheet
- chemicals in annex III are assigned Harmonized System codes



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Key provision: Information Exchange

SUMMARY

- **PIC Circular** – summaries of notifications of national regulatory actions, import responses, contact details DNAs
- **Export notification** – an indication of the hazardous chemicals that are entering the country
- **Information to accompany export** – improved labeling and accompanying information in line with GHS, while HS Codes linked to work of the WCO will facilitate tracking of PIC chemicals



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Benefits

3. Informed decision-making

PIC Procedure

- Decision Guidance Documents provide the basis for a decision making process on future imports of chemicals listed in Annex III

Information exchange

- information available through the PIC Circular as well as directly from other Parties can be used to inform/strengthen national decisions on hazardous chemicals



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Benefits

4. Export notification

- reminds importing Parties of a national regulatory actions in the exporting Party
- informs importing Parties that the chemical may be in use in their country
- Provides an opportunity to seek further information from the exporting Party



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Benefits

5. Information accompanying export

- Improved labeling and provision of safety data sheets assist importing countries to understand and manage potential risks – consistent with obligations under GHS
- HS Codes facilitate tracking PIC chemicals



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Benefits

6. Network of DNAs

- Access to DNAs in other countries with similar conditions
- Opportunities to exchange experience and information in the implementation of the Rotterdam Convention



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Benefits

7. Technical Assistance

- Parties cooperate in promoting technical assistance to develop the infrastructure and capacity required to implement the Convention
- Parties with more advanced systems to regulate chemicals provide technical assistance to other Parties



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Questions? Comments?



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