

Persistent Organic Pollutants (POPs)

What are POPs?

POPs, also known as “forever chemicals” are substances with the following properties:

- › **persistent:** difficult to degrade and persist in the environment for long periods;
- › **bioaccumulative:** able of accumulating in living organisms;
- › **toxic:** cause harmful effects on ecosystems and human health (e.g. cancers, birth defects, disruption of the immune and reproductive system in humans);
- › **mobile** over long distances.



POPs origin

Chemical substances that have been identified as POPs include:

- **pesticides** (such as DDT);
- **industrial chemicals** (such as polychlorinated biphenyls (PCB), which were widely used in electrical equipment); or
- **unintentional by-products** formed during industrial processes, degradation or combustion (such as dioxins and furans).



Source: [Stockholm Convention](#)

Regulatory framework

- International level:
 - › [Stockholm Convention](#) (or “**POPs Convention**”);
 - › [Aarhus Protocol](#) (or “**POPs Protocol**”);
 - › These two international agreements have the same objectives: the reduction, control and elimination of emissions of POPs into the environment.
- EU Level: [Regulation \(EU\) 2019/1021](#) (or “**POPs Regulation**”);
- **Remark:** The international and EU regulations are legally binding in Luxembourg.

Related obligations

- Prohibition & restriction of the manufacture, placing on the market and the use of certain POPs;
- Management of stockpiles consisting of or containing POPs;
- Reduction and/or elimination of POPs release;
- Management of waste containing POP's.

Further information available on our [POP Helpdesk website](#).

Source: [Regulation \(EU\) 2019/1021](#)

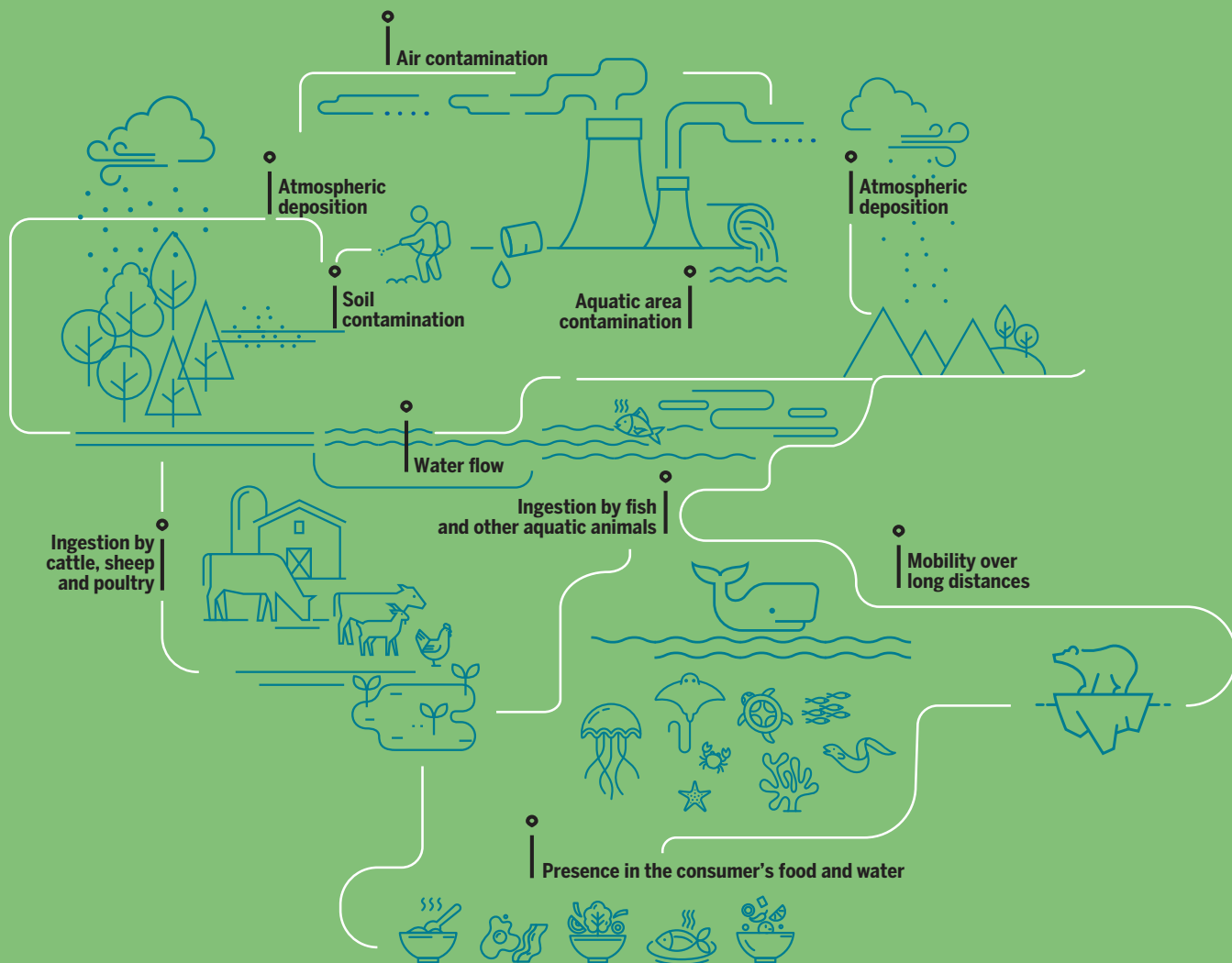


Figure: POPs dispersion in the environment

How POPs are regulated in Luxembourg

- Luxembourg has signed the Stockholm Convention in 2001: [Loi du 8 janvier 2003 portant approbation de la Convention de Stockholm sur les polluants organiques persistants, faite à Stockholm, le 22 mai 2001](#)
- A law transposes certain implementing rules and sanctions of the POP Regulation: [Loi du 11 mars 2020 portant certaines modalités d'application et les sanctions du règlement \(UE\) 2019/1021 du Parlement européen et du Conseil du 20 juin 2019 concernant les polluants organiques persistants](#)

- Regular measurement programmes to verify both the releases of POPs into the environment and to evaluate the effectiveness of the measures and actions taken over time. Examples:
 - › Monitoring of existing stocks and common sources of POPs and the evolution of these stocks;
 - › [Biosurveillance](#) program which covers PCDDs, PCDFs and PCBs.
- Information on measures and action planned and their results can be found in the National implementation Plan (PNMO).
- The PNMO is an obligation for the convention's signatories to provide an overview on their POPs situation and measures to reduce POP releases in line with the convention's obligations.

POPs in Luxembourg

Among others:

- **PFOS/PFOA:** substances were widely used in coatings on water resistant outdoor clothing and in fire extinguishing foams. Although that their usage is restricted nowadays, old stockpiles may still contain these substances.
- **PCB:** Never produced in Luxembourg, but were widely used as flame retardants, coolant liquids, plasticizers, etc. Thus, may still be found in old electric equipment or in window caulk, etc.
- **SCCPs** were recently added to the Convention and may still be found in electric equipment.
- **HCB:** Problems related to HCB are due to unintentional emissions.
- **DDT:** Its detention, placing on the market and use are forbidden in Luxembourg since 1981. Never produced in Luxembourg but is part of the monitoring of boundary waters.

Substances	Measures/Actions
PentaBDE, OctaBDE, HBB, PCB, PCDD/F	The substance should be monitored regularly. For example: PCBs and PCDD/PCDF are monitored in Sewage Sludge.
HBCDD, PFOS	The substance should be monitored regularly. Additional measures/actions to reduce releases to the environment should be foreseen. Example for PFOS: inventory of fire-fighting foams and proper disposal of non-compliant products .
Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, HCB, Mirex, Toxaphene, Chlordecone, endosulfan, lindane, Alpha- & beta-HCH, DDT	The presence of the substance could not be determined. The substance may however be part of a screening project.

Source: [Plan national de mise en œuvre \(PNMO\) de la Convention de Stockholm sur les polluants organiques persistants](#)

What do we offer

- We are the national enquiry point;
- Answering your questions related to POPs;
- Support in English, French and German;
- Our webpage: <https://www.pop-chemicals.lu/>

Useful links

- Stockholm Convention: <http://chm.pops.int/>
- National Portail de l'environnement (Emwelt.lu): https://environnement.public.lu/fr/chemesch-substanzen/Substances_chimiques/POPs.html
- ECHA: <https://echa.europa.eu/understanding-pops>
- European Commission: https://ec.europa.eu/environment/chemicals/international_conventions/index_en.htm

Persistent Organic Pollutants | REACH&CLP Helpdesk Luxembourg

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