

POPRC-8/8: Perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals in open applications

The Persistent Organic Pollutants Review Committee,

Taking note of decision SC-5/5, by which the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants established a work programme for the identification and assessment of alternatives to the use of perfluorooctane sulfonic acid in open applications,

Having reviewed the information provided in the technical paper on the identification and assessment of alternatives to the use of perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals in open applications as set out in document UNEP/POPS/POPRC.8/INF/17/Rev.1,

Adopts the recommendations on alternatives to the use of perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals in open applications, prepared on the basis of the technical paper and contained in the annex to the present decision, for consideration by the Conference of the Parties at its sixth meeting.

Annex to decision POPRC-8/8

Recommendations prepared on the basis of the technical paper on the identification and assessment of alternatives to the use of perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals in open applications

Having reviewed the information provided in the technical paper¹ on the identification and assessment of alternatives to the use of perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals (PFOS)² in open applications, prepared in accordance with decision SC-5/5,

Considering that open applications are likely to result in releases of PFOS into the environment, which poses potential risks to human health and the environment,

The Persistent Organic Pollutants Review Committee recommends that the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants:

(a) Encourage parties to make use of the information on alternatives to PFOS identified through the Committee's work and other relevant work under the Stockholm Convention for developing strategies to phase out PFOS and in the process of updating their national implementation plans in accordance with paragraph 1 (c) of Article 7 of the Convention;

(b) Consider that information on the commercial availability and effectiveness of safer alternatives to PFOS for the following applications has become available, and encourage parties to stop using PFOS for these applications:

- (i) Fire-fighting foams;
- (ii) Insecticides for the control of red imported fire ants and termites;
- (iii) Decorative metal plating;
- (iv) Carpets;
- (v) Leather and apparel;

¹ UNEP/POPS/POPRC.8/INF/17/Rev.1.

² For these recommendations, perfluorooctane sulfonic acid, its salts, perfluorooctane sulfonyl fluoride and their related chemicals are collectively referred to as "PFOS". The "related chemicals" are chemicals that contain the structural element PFOS in their molecular structure as they are and were produced with one of the above mentioned chemicals as an intermediate or starting material.

- (vi) Textiles and upholstery;
- (c) For metal plating (hard metal plating), encourage parties to restrict the use of PFOS in hard metal plating, currently allowed as a specific exemption, to closed-loop systems only, currently allowed as an acceptable purpose;
- (d) Request parties and observers to provide information on whether PFOS or alternatives to it are used for the applications listed below and on quantities of PFOS used when such information is available:
 - (i) Aviation hydraulic fluid;
 - (ii) Chemically driven oil production;
 - (iii) Electric and electronic parts for some colour printers and colour copy machines;
- (e) Consider that substantial gaps in information still exist on chemical and non-chemical alternatives to PFOS and their properties, as identified through the Committee's work, and encourage parties and stakeholders, such as industry and academia, to continue to identify and assess such alternatives;
- (f) Encourage parties to collect information to fill the gaps in information on alternatives to PFOS identified through the Committee's work (summarized in the table below), including but not limited to the following:

For input substances:³

- (i) Chemical identity and properties;
- (ii) Trade names, producers and traders;
- (iii) Technical feasibility;
- (iv) Efficacy;
- (v) Availability;
- (vi) Accessibility;

For both input and degradation substances:⁴

- (i) Bioaccumulation, persistence and long-range environmental transport characteristics;
 - (ii) Health and environmental effects;
- (g) Consider that additional information on the properties of alternatives to PFOS is needed in order to determine their health and environmental impacts, and encourage parties and industry to identify ways to make such information publicly available;
- (h) Invite parties to make the information referred to in subparagraphs (d) to (g) above available for future revision of the guidance on alternatives to PFOS⁵ developed by the Committee and for the evaluation of the continued need for perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride for the various acceptable purposes and specific exemptions, in accordance with paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention;
- (i) Take into account the information on certain alternatives to PFOS identified in the technical paper, such as perfluorohexane sulfonic acid (PFHxS) and certain siloxanes, that indicates that they might be of concern with regard to their health and environmental effects, and consider the need for further evaluation;
- (j) Request the Secretariat to broadly disseminate the information contained in the technical paper among parties and stakeholders, including the global perfluorinated chemicals (PFC) group of the Organization for Economic Cooperation and Development and UNEP;

³ Substances that are used in the applications.

⁴ Substances resulting from the degradation of input substances.

⁵ UNEP/POPS/POPRC.6/13/Add.3/Rev.1.

(k) For insect baits for the control of leaf-cutting ants from *Atta spp.* and *Acromyrmex spp.*, consider the need for peer-reviewed studies, such as pilot projects, in close cooperation with the national authorities in any country that still uses PFOS for this application, to evaluate the feasibility of alternatives to PFOS within an integrated pest management approach;

(l) Consider inviting the Committee to:

- (i) Revise the guidance on alternatives to PFOS⁶ developed by the Committee to incorporate the information contained in the technical paper on alternatives to PFOS in open applications;
- (ii) Further participate in the assessment of information on alternatives to PFOS made available to the Conference of the Parties as referred to in subparagraph (h) above;

(m) Take into account the recommendations of the Committee and the information contained in the technical paper when the Conference of the Parties evaluates the continued need for PFOS, its salts and PFOSF for the various acceptable purposes and specific exemptions, in accordance with paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention.

⁶ UNEP/POPS/POPRC.6/13/Add.3/Rev.1.

Summary of the availability of information compiled as part of the technical paper on the identification and assessment of alternatives to the use of PFOS in open applications

Type of use	Existence of alternatives	Chemical identity and properties	Trade names	Producers	Traders	Hazard characteristics	Technical Feasibility ^a	Health Effects ^a	Environmental effects ^a	Efficacy ^a	Availability ^a	Accessibility ^a
Aviation hydraulic fluids	No information	No information	Available	No information	No information	No information	No information	No information	No information	No information	No information	No information
Fire-fighting foam	Commercially available	Scarce information on input substances owing to CBI	Available	Available	Available	Available only for degradation substances	Available	Available	Available	Available	Available	Available
Insect baits for control of Leaf-cutting ants from <i>Atta spp.</i> and <i>Acromyrmex spp.</i>	Undergoing evaluation	Available	Available	No information	No information	Available	Available	Available	Available	Available	Available	Available
Insecticides for control of red imported fire ants and termites	Commercially available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
Hard metal plating	At trial phase prior to scale up	Scarce information on input substances	Available	Available	Available	Available only for degradation substances	Available	Available	Available	Available	Available	Available
Decorative metal plating	Commercially available	Available	Available	Available	Available	Available mainly for degradation substances and a few input substances	Available	Available	Available	Available	Available	Available

Type of use	Existence of alternatives	Chemical identity and properties	Trade names	Producers	Traders	Hazard characteristics	Technical Feasibility ^a	Health Effects ^a	Environmental effects ^a	Efficacy ^a	Availability ^a	Accessibility ^a
Electric and electronic parts for some colour printers and colour copy machines	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information	No information
Chemically driven oil production	Scarce information	Available	No information	No information	No information	Available only for degradation substances	No information	No information	No information	No information	No information	No information
Carpets, leather, apparel, textiles and upholstery	Commercially available	Available	Available	Available	Available	Available mainly for degradation substances and a few input substances	Available	Available	Available	Available	Available	Available
Paper, packaging, rubber and plastics	Commercially available	Available	Available	Available	Available	Available mainly for degradation substances and a few input substances	Available	No information	No information	No information	No information	No information
Coatings and coating additives	Commercially available	Available	Available	Available	Available	Available mainly for degradation substances and a few input substances	Available	No information	No information	No information	No information	No information

Note:

No information: no information could be compiled from existing publicly available sources or peer-reviewed sources.

CBI: confidential business information agreements.

No information could be compiled on production and use volumes for alternatives to PFOS, owing to CBI.

^a Information as provided by parties and observers through the questionnaire submitted to the Secretariat pursuant to decision POPRC-7/5.