

POPRC-14/3: Evaluation of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

The Persistent Organic Pollutants Review Committee,

Recalling decision SC-6/4, by which the Conference of the Parties adopted a process, set out in the annex to that decision, for the evaluation of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention,

Having completed the second assessment of alternatives to PFOS, its salts and PFOSF in accordance with paragraph 3 of decision SC-6/4¹ and having reviewed the draft report of the Secretariat on the evaluation of information on PFOS, its salts and PFOSF² in accordance with the terms of reference for the assessment,³

1. *Decides* to submit the report on the assessment of alternatives to PFOS, its salts and PFOSF⁴ to the Conference of the Parties for consideration at its ninth meeting;

2. *Requests* the Secretariat to finalize its report on the evaluation of information on PFOS, its salts and PFOSF⁵ on the basis of comments and suggestions provided by the Committee taking into account the discussions at the fourteenth meeting of the Committee and to submit it to the Conference of the Parties for consideration at its ninth meeting;

3. *Recommends* that the Conference of the Parties consider amending Annex B to the Convention taking into account the recommendations set out in the annex to the present decision;

4. *Also recommends* that the Conference of the Parties encourage Parties that are using sulfluramid as insect bait for the control of leaf-cutting ants from *Atta* spp. and *Acromyrmex* spp. to register for an acceptable purpose by notifying the Secretariat in accordance with Annex B to the Convention;

5. *Requests* the Secretariat to revise, by 31 October 2018, the report on the assessment of alternatives to PFOS, its salts and PFOSF set out in the respective annexes to documents UNEP/POPS/POPRC.14/INF/8 and UNEP/POPS/POPRC.14/INF/8/Add.1, taking into account the discussions at the fourteenth meeting;

6. *Invites* Parties and observers to provide, by 30 November 2018, comments on the revised report;

7. *Requests* the Secretariat to further revise the report on the assessment of alternatives to PFOS, its salts and PFOSF, taking into account the comments received in accordance with paragraph 6 above for submission to the ninth meeting of the Conference of the Parties.

¹ UNEP/POPS/POPRC.14/INF/8, UNEP/POPS/POPRC.14/INF/8/Add.1.

² UNEP/POPS/POPRC.14/INF/9.

³ UNEP/POPS/POPRC.13/INF/9.

⁴ UNEP/POPS/POPRC.14/INF/13.

⁵ UNEP/POPS/POPRC.14/INF/9.

Annex to decision POPRC-14/3

Recommendations on the continued need for perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) for various the various acceptable purposes and specific exemptions

A. Acceptable purposes

(a) Photo-imaging:

Based on the assessment of the use of alternatives to perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) for photographic coatings applied to film, paper and printing plates, the Committee recommends that the acceptable purpose for the use of PFOS, its salts and PFOSF for photo-imaging no longer be available under the Convention.

(b) Photo-resist and anti-reflective coatings for semiconductors; etching agent for compound semiconductors and ceramic filters:

Based on the steadily declining use of PFOS, its salts and PFOSF for semiconductors (photo-resist and anti-reflective coatings for semiconductors; etching agent for compound semiconductors and ceramic filters) and the commercial availability of alternatives, the Committee recommends that the acceptable purpose for the use of PFOS, its salts and PFOSF for photo-resist and anti-reflective coatings for semiconductors and as etching agent for compound semiconductors and ceramic filters no longer be available under the Convention.

(c) Aviation hydraulic fluids:

Based on the assessment and the availability of alternatives and the withdrawal of a number of Parties from the register of acceptable purposes, the Committee recommends that the acceptable purpose for the use of PFOS, its salts and PFOSF for aviation hydraulic fluids no longer be available under the Convention.

(d) Metal plating (hard metal plating) only in closed-loop systems:

Based on the availability of alternatives to PFOS, its salts and PFOSF for metal plating (hard metal plating) only in closed-loop systems and their assessment, and the fact that some Parties have indicated that the use of PFOS is either declining or has been completely phased out, while others have indicated a continued need for the use of PFOS, the Committee recommends that the use of PFOS, its salts and PFOSF for metal plating (hard metal plating) only in closed-loop systems be amended from an acceptable purpose to a specific exemption.

(e) Certain medical devices (such as ethylene tetrafluoroethylene copolymer (ETFE) layers and radio-opaque ETFE production, in vitro diagnostic medical devices, and CCD colour filters):

Based on its assessment, the Committee concluded that alternatives to the use of PFOS, its salts and PFOSF for certain medical devices are available and therefore recommends that the use of PFOS, its salts and PFOSF for certain medical devices (such as ethylene tetrafluoroethylene copolymer (ETFE) layers and radio-opaque ETFE production, in vitro diagnostic medical devices, and CCD colour filters) no longer be available under the Convention.

(f) Fire-fighting foam:

The assessment indicated that alternatives to PFOS-based fire-fighting foam are readily available in many countries and have been demonstrated to be technically feasible and economically viable but some have potentially negative environmental and health impacts. On that basis, the Committee recommends that the acceptable purposes for the production and use of PFOS, its salts and PFOSF for fire-fighting foam be amended to a specific exemption for the use of fire-fighting foam for liquid fuel vapour suppression and liquid fuel fires (Class B fires) already in installed systems, including both mobile and fixed systems, and with the same conditions specified in

paragraphs

2 (a)–(e) of the annex to decision POPRC-14/2 on perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds;

The Committee recognized that a transition to the use of short-chain per- and polyfluoroalkyl substances (PFASs) for dispersive applications such as fire-fighting foam is not a suitable option from an environmental and human health point of view and that some time may be needed for a transition to alternatives without PFASs.

(g) Insect bait for control of leaf-cutting ants from *Atta* spp. and *Acromyrmex* spp.:

The assessment of the use of alternatives to PFOS, its salts and PFOSF showed dissenting views on the need to use sulfluramid for combating leaf-cutting ants, the availability of alternatives, and the technical and economic feasibility and operational effectiveness of those alternatives;

The Committee discussed both the lack of clarity in the text of Annex B listing PFOS, its salts and PFOSF (as sulfluramid is not explicitly mentioned in the use entry) and the current widespread use of sulfluramid. Based on those discussions, the Committee suggests including “sulfluramid (CAS No: 4151-50-2)” in the entry for the listed acceptable purpose and specifying that the current acceptable purpose is meant for agricultural use only;

The Committee therefore recommends that the acceptable purpose be maintained and that the text of the use entry in the Annex be clarified as follows: “Insect baits with sulfluramid (CAS No: 4151-50-2) as an active ingredient for control of leaf-cutting ants from *Atta* spp. and *Acromyrmex* spp. for agricultural use only”;

The Committee encourages additional research and development of alternatives and, where alternatives are available, that they be used;

The Committee further encourages Parties to consider monitoring activities for sulfluramid, PFOS and other relevant degradation products in the different environmental compartments (soil, groundwater, surface water) of the application sites.

B. Specific exemptions

(a) Photo masks in the semiconductor and liquid crystal display (LCD) industries:

These industries have largely phased out the use of PFOS, its salts and PFOSF from this use. Therefore, the Committee recommends that the specific exemption for the use of PFOS, its salts and PFOSF for photo masks in the semiconductor and liquid crystal display (LCD) industries no longer be available under the Convention.

(b) Metal plating (hard metal plating); metal plating (decorative metal plating):

For metal plating (hard metal plating); metal plating (decorative plating), it is noted that for a number of Parties the notification has expired or been withdrawn. While there is uncertainty over the potential for conversion of Cr(VI) to Cr(III), based on the availability of viable alternatives, and the use of Cr(III) techniques in the case of decorative plating, the Committee recommends that the specific exemptions for the use of PFOS its salts and PFOSF for metal plating (hard metal plating) and metal plating (decorative metal plating) no longer be available under the Convention.

(c) Electric and electronic parts for some colour printers and colour copy machines:

PFOS, its salts and PFOSF for these uses has been largely phased out. This indicates that alternatives to PFOS are available and widely used. Therefore, the Committee recommends that the specific exemption for the use of PFOS, its salts and PFOSF for electric and electronic parts for some colour printers and colour copy machines no longer be available under the Convention.

(d) Insecticides for control of red imported fire ants and termites:

A range of chemical and non-chemical alternatives have been identified and it is indicated that these are widely available and technically feasible. These alternatives have been widely used. The Committee recommends that the specific exemption for the use of PFOS, its salts and PFOSF

for insecticides for the control of red imported fire ants and termites no longer be available under the Convention.

(e) **Chemically driven oil production:**

The assessment showed that alternatives are widely available. Given the use of alternatives to PFOS, its salts and PFOSF in most oil-producing areas, the Committee recommends that the specific exemption for the use of PFOS, its salts and PFOSF for chemically driven oil production no longer be available under the Convention.