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Stockholm Convention on Persistent Organic Pollutants

**Persistent Organic Pollutants Review Committee Thirteenth meeting** Rome, 17–20 October 2017

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

#### I. Opening of the meeting

1. The thirteenth meeting of the Persistent Organic Pollutants Review Committee was held at the headquarters of the Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, from 17 to 20 October 2017. The Chair of the Committee, Ms. Estefania Moreira (Brazil), was unable to attend the meeting and, in accordance with rule 24 of the rules of procedure of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants, which apply mutatis mutandis, if the Chair is temporarily absent from a meeting or any part thereof, she or he shall designate the Vice-Chair to act as Chair. However, Mr. Zaigham Abbas (Pakistan), who had previously been elected by the Committee as its Vice-Chair and who would have chaired the meeting in the absence of Ms. Moreira, had been replaced by his Government as a member of the Committee. Consequently, the Committee decided to elect Ms. Maria Delvin (Sweden) as the new Vice-Chair. In accordance with the terms of reference of the Committee set out in decision SC-1/7 and the rules of procedure, Ms. Delvin would serve as Chair of the current meeting in the absence of Ms. Moreira. The Committee also agreed that Mr. Agus Haryono (Indonesia) would act as Rapporteur for the meeting.

2. The Chair declared the meeting open at 9.30 a.m. on Tuesday, 17 October 2017. Welcoming the members of the Committee and observers, she invited Mr. Carlos Martín-Novella, Deputy Executive Secretary of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention, to deliver opening remarks.

3. In his remarks, Mr. Martín-Novella expressed appreciation to the Committee members and stakeholders for their scientific and technical contributions to the Committee's work, which was key not only to ensuring informed decision-making by the Conference of the Parties to the Stockholm Convention but also to informing the other multilateral environmental agreements in the field of chemicals and waste management, and which would also provide inputs for the global high-level political commitment on pollution to be negotiated at the third session of the United Nations Environment Assembly, to be held in Nairobi from 4 to 6 December 2017, where the sound management of chemicals and wastes constituted one of the six sub-themes of the session's overarching vision of a "pollution-free planet".

4. The Basel, Rotterdam and Stockholm conventions, he said, were successful examples of the commitment of the global community to the sound management of chemicals and wastes, contributing to the achievement of the Sustainable Development Goals. The progress achieved under those conventions over the years had demonstrated that the science-based approach was working well and

<sup>\*</sup> Reissued for technical reasons on 20 November 2018.

should be strengthened. With regard to the Stockholm Convention, in particular, the Conference of the Parties had, at its eighth meeting, noted the success reflected in the results of the first effectiveness evaluation of the Convention of a listing process that had thus far seen the addition of 16 new chemicals to the list of persistent organic pollutants initially to be eliminated or restricted under the Convention at the time of its entry into force.

5. Mr. Martín-Novella recalled that the effectiveness evaluation committee had, at the eighth meeting of the Conference of the Parties, recommended that Parties and observers provide adequate and timely information to the Secretariat for the use of the Committee to support it in the development of relevant recommendations to the Conference of the Parties. A careful review of the relevant information at the current meeting and in the following intersessional period would provide the Conference of the Parties with a solid basis for decision-making at its ninth meeting.

6. Welcoming the newly appointed experts who were participating in the current meeting as observers, and expressing gratitude to the European Union and the Government of Sweden for the financial support that had made it possible for them to attend, he expressed confidence that the Committee's transparent, inclusive, balanced, precautionary and science-based approach would ensure a fruitful outcome to its deliberations over the coming days.

#### II. Organizational matters

#### A. Adoption of the agenda

7. The Committee adopted the agenda set out below on the basis of the provisional agenda (UNEP/POPS/POPRC.13/1):

- 1. Opening of the meeting.
- 2. Organizational matters:
  - (a) Adoption of the agenda;
  - (b) Organization of work.
- 3. Rotation of the membership.
- 4. Review of the outcomes of the eighth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants relevant to the work of the Committee.
- 5. Technical work:
  - (a) Consideration of draft risk management evaluations:
    - (i) Dicofol;
    - (ii) Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds;
  - (b) Consideration of a proposal for the inclusion of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention;
  - (c) Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention.
- 6. Report on activities for effective participation in the work of the Committee.
- 7. Workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee.
- 8. Venue and date of the fourteenth meeting of the Committee.
- 9. Other matters.
- 10. Adoption of the report.
- 11. Closure of the meeting

8. In adopting its agenda the Committee agreed to discuss under item 9, other matters, suggestions on improving the ways of presenting the information in the risk profile and risk

management evaluation documents to meet the needs of the Conference of the Parties while ensuring conformity with document length and translation requirements.

#### B. Organization of work

9. The Committee agreed to conduct the meeting in accordance with the scenario note prepared by the Chair (UNEP/POPS/POPRC.13/INF/1) and the proposed schedule set out in document UNEP/POPS/POPRC.13/INF/2, subject to adjustment as necessary. The Committee also agreed to conduct its work in plenary session and to establish contact, drafting and friends of the chair groups as necessary, with no more than two such groups working at the same time. In considering the matters on its agenda the Committee had before it the documents listed in the annotations to the agenda (UNEP/POPS/POPRC.13/I/Add.1) and the list of pre-session documents by agenda item (UNEP/POPS/POPRC.13/INF/12).

#### C. Attendance

10. The meeting was attended by the following 27 Committee members: Mr. Jack Holland (Australia), Ms. Ingrid Hauzenberger (Austria), Ms. Tamara Kukharchyk (Belarus), Ms. Michelle Kivi (Canada), Mr. Jianxin Hu (China), Mr. Pavel Čupr (Czechia), Ms. Consuelo Meneses (Ecuador), Mr. Hubert Binga (Gabon), Mr. Agus Haryono (Indonesia), Mr. Seyed Jamaleddin Shahtaheri (Islamic Republic of Iran), Ms. Helen Jacobs (Jamaica), Mr. Mineo Takatsuki (Japan), Ms. Caroline Wamai (Kenya), Ms. Mantoa Sekota (Lesotho), Ms. Katinka van der Jagt (Luxembourg), Mr. Sidi Ould Aloueimine (Mauritania), Mr. Rameshwar Adhikari (Nepal), Mr. Martien Janssen (Netherlands), Ms. Anna Graczyk (Poland), Mr. Marcus Richards (Saint Vincent and the Grenadines), Mr. Ousmane Sow (Senegal), Mr. Jayakody Sumith (Sri Lanka), Ms. Thabile Ndlovu (Swaziland), Ms. Maria Delvin (Sweden), Mr. Andreas Buser (Switzerland), Mr. Youssef Zidi (Tunisia) and Mr. Armando Diaz Cortés (Bolivarian Republic of Venezuela).

11. The following States and regional economic integration organizations were represented as observers: Brazil, Canada, China, Costa Rica, Croatia, Denmark, European Union, Finland, France, Germany, Ghana, India, Indonesia, Islamic Republic of Iran, Japan, Jordan, Kenya, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Romania, Russian Federation, Serbia, Slovakia, South Africa, Suriname, Sweden, Switzerland, Togo, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Yemen.

12. Non-governmental organizations were also represented as observers. The names of those organizations are included in the list of participants (UNEP/POPS/POPRC.13/INF/13).

#### III. Rotation of the membership

13. Introducing the item, the representative of the Secretariat drew attention to the information provided in document UNEP/POPS/POPRC.13/INF/3/Rev.1 on the newly appointed members of the Persistent Organic Pollutants Review Committee and forthcoming rotation of the membership in May 2018. The Conference of the Parties, by its decision SC-8/9, had appointed the 14 experts who had been designated by Parties to serve as members of the Committee with terms of office from 5 May 2016 to 4 May 2020, together with 17 new experts to serve with terms of office from 5 May 2018 to 4 May 2022. After the eighth meeting of the Conference of the Parties, the Government of Pakistan had informed the Secretariat of the replacement of the expert that it had designated to serve as a member of the Committee. She reported that the curriculum vitae of the replacement expert of Pakistan, a summary on the rotation of the membership and the contact information of the current and newly appointed members were set out in the document before the Committee. Finally, given that the term of office of the current Vice-Chair of the Committee, Ms. Delvin, was due to end on 4 May 2018, the Committee would have to elect a new Vice-Chair with a term of office to begin on 5 May 2018, taking into account geographical and gender balance among the officers.

14. Subsequently, following a proposal by the Chair, the Committee elected Ms. Svitlana Sukhorebra (Ukraine) to serve as Vice-Chair of the Committee, with a term of office beginning on 5 May 2018. Ms. Sukhorebra would also serve as Rapporteur.

#### IV. Review of the outcomes of the eighth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants relevant to the work of the Committee

15. Introducing the item, the representative of the Secretariat summarized the information provided in document UNEP/POPS/POPRC.13/INF/4, on the outcomes of the eighth meeting of the

Conference of the Parties to the Stockholm Convention relevant to the Committee's work, drawing attention in particular to decisions SC-8/10, SC-8/11 and SC-8/12, on the listing of, respectively, decabromodiphenyl ether (commercial mixture, c-decaBDE) in Annex A to the Convention with specific exemptions, short-chain chlorinated paraffins in Annex A with specific exemptions, and hexachlorobutadiene in Annex C; decisions SC-8/13 and SC-8/14, on the review of information related to specific exemptions for, respectively, decabromodiphenyl ether and short-chain chlorinated paraffins; decision SC-8/5 on perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF); and decision SC-8/4 on the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention.

16. In addition, the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions had adopted substantially identical decisions entitled "From science to action" (decisions BC-13/22, RC-8/15 and SC-8/25), the aim of which was to enhance the science-policy interface for decision-making and the implementation of the three conventions. A side event on the topic would take place at the current meeting.

17. The Committee took note of the information provided.

#### V. Technical work

#### A. Consideration of draft risk management evaluations

#### 1. Dicofol

18. In considering the sub-item, the Committee had before it a note by the Secretariat on the draft risk management evaluation on dicofol (UNEP/POPS/POPRC.13/2) and a compilation of comments and responses relating to the draft risk management evaluation on dicofol (UNEP/POPS/POPRC.13/INF/5).

19. Introducing the sub-item, the representative of the Secretariat recalled that the Committee, by its decision POPRC-12/1, had adopted the risk profile on dicofol; invited Parties and observers to submit information specified in Annex F to the Convention; and established an intersessional working group to prepare a draft risk management evaluation that would include an analysis of possible control measures for dicofol.

20. Mr. Richards, chair of the intersessional working group, gave a presentation on the draft risk management evaluation.

21. In the ensuing discussion, general appreciation was expressed for the quality of the draft risk management evaluation, with several members highlighting a number of points that they considered warranted further consideration in a contact group.

22. One member said, with regard to the control measures, that the draft risk management evaluation for dicofol should make clear that maximum residue limits of the chemical in food were compliance levels for allowable pesticides currently in use and, hence, were not set in the same context as environmental quality standards and this distinction was not clear. Maximum residue limits should not be considered as a control level for a persistent organic pollutant or banned chemical and that should be reflected in the document.

23. Another member said that the evaluation appeared to overstate the complexity of the dicofol supply chain in comparison to other chemicals, such as pentadecafluorooctanoic acid, as only a few producers were still producing dicofol and, as a pesticide, its distribution and use were better regulated by most countries through existing pesticide regulatory mechanisms. On the other hand, he added, the Committee's tasks went well beyond simply recommending prohibition.

24. One member, referring to the information on dicofol production processes set out in paragraphs 49 and 50 of the draft risk management evaluation, and supported by another member, drew attention to the findings of additional research that showed the dicofol production processes using a closed system also to have led to the release of polychlorinated dibenzo-*p*-dioxins and dibenzofurans (PCDD/PCDF).

25. One member, pointing out that traces of dicofol used in wine production in a number of countries until the late 1900s had been found in the soil in those countries, and expressing concern that the chemical could still be purchased via the Internet, expressed support for its listing in Annex A to the Convention without specific exemptions. Another member said that traces of dicofol had been detected in other pesticides and that attention should be paid to control measures for the import, uses in other sectors and transboundary movement of products containing dicofol.

26. The Committee established a contact group, chaired by Mr. Richards, to further discuss and revise the draft risk management evaluation for dicofol and to prepare a draft decision based on an initial text to be prepared by the Secretariat, taking into account the discussions in plenary.

27. Subsequently, the Committee adopted decision POPRC-13/1, by which it adopted the risk management evaluation and decided to recommend to the Conference of the Parties that it consider listing dicofol in Annex A to the Convention. The decision is set out in annex I to the present report and the risk management evaluation is set out in document UNEP/POPS/POPRC.13/7/Add.1.

### 2. Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

28. In considering the sub-item, the Committee had before it a draft risk management evaluation for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds (UNEP/POPS/POPRC.13/3), as well as the related supporting information (UNEP/POPS/POPRC.13/INF/6), non-exhaustive lists of substances covered and not covered by the draft risk management evaluation (UNEP/POPS/POPRC.13/INF/6/Add.1) and comments and responses relating to the draft risk management evaluation (UNEP/POPS/POPRC.13/INF/7).

29. Ms. van der Jagt, drafter of the intersessional working group on PFOA, its salts and PFOA-related compounds, gave a presentation on the draft risk management evaluation.

30. In the ensuing discussion, many members expressed general support for the draft risk management evaluation, with a number also noting opportunities to clarify or improve particular elements of it. Several underscored the overall complexity of the topic and the difficulties inherent in preparing such an evaluation.

31. Many members spoke about the high number of exemptions proposed in the document, including one who noted that some were not time-limited. A number said that alternatives appeared to be available for some of the applications that were proposed as exemptions, such as fire-fighting foams and textiles. One member suggested focusing on the presence of alternatives for many activities and their absence for specific activities. Several members highlighted the need to examine the feasibility and availability of alternatives, including one who said that differences between developed and developing countries in terms of the availability and use of alternatives should be taken into consideration. One member, noting the tendency to replace halogenated chemicals with other halogenated alternatives, urged the Committee to consider non-halogenated alternatives.

32. Several members noted that the information provided on unintentional production was limited, pointing out that only one source - incineration - was given and that more information would be needed to support a recommendation to list in Annex C to the Convention. One member noted that the incineration processes, if best available techniques were applied in accordance with Article 5 of the Convention, would not be a source of unintentional releases, while another noted that incinerators in developing countries often did not apply best available techniques.

33. A number of members flagged the presence of products containing PFOA in waste streams as a concern, particularly given the difficulty of identifying such products. One also highlighted the issue of transportation of intermediates to jurisdictions with few or no regulations. One member, noting that the documents indicated that sulfluramid could be considered a PFOA-related compound, said that it should be discussed further and proposed to add some information to the risk management evaluation document.

34. Ms. van der Jagt subsequently acknowledged the comments of members as well as those made by a number of representatives of observers, expressing the hope that their points could be discussed further in a contact group. Responding to a concern raised by an observer, she confirmed that a number of measures were in place to avoid any conflicts of interest. She highlighted that the Committee members were responsible for the work done in their capacity as members. She also welcomed a comment regarding the advisability of avoiding Annex B listings without time limits based on experience gained with PFOS, its salts and PFOSF.

35. The Committee agreed to establish a contact group, co-chaired by Mr. Binga and Mr. Adhikari, to revise the draft risk management evaluation and to prepare a draft decision on the listing of PFOA, its salts and PFOA-related compounds in the annexes to the Convention, taking into account the discussions in plenary.

36. Subsequently, one member, noting the lack of data on a number of points and the fact that some applications had yet to be discussed, said that it was more important to him to take the time to address those issues than to reach a final decision on a recommendation at the current meeting.

As such, he suggested that such a final decision be deferred until the fourteenth meeting of the Committee.

37. One member, supported by another, expressed particular appreciation for the high quality and truly independent nature of the work undertaken in preparing the documents, without which it would not have been possible to produce such a complex dossier in so short a period of time.

38. Following further work by the contact group facilitated by Ms. Delvin, the Committee adopted decision POPRC-13/2, by which it adopted the risk management evaluation, decided to recommend to the Conference of the Parties that it consider listing PFOA, its salts and PFOA-related compounds in Annex A or B to the Convention with specific exemptions, and invited Parties and observers to provide additional information, including on socioeconomic aspects, that would assist the Committee in the possible defining of specific exemptions for the production and use of the chemicals in a number of specified applications; in the further evaluation of the chemical's unintentional formation and release; and in the further evaluation of the chemical identity of the PFOA-related compounds. In the decision, the Committee decided, among other things, to establish an intersessional working group to assess the additional information provided with a view to strengthening the recommendation on the listing of the chemical for consideration by the Committee at its fourteenth meeting. The working group would be chaired by Mr. Adhikari with Ms. van der Jagt serving as the drafter.

39. The decision is set out in annex I to the present report and the risk management evaluation is set out in document UNEP/POPS/POPRC.13/7/Add.2.

# B. Consideration of a proposal for the inclusion of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention

40. Introducing the sub-item, the Committee had before it notes by the Secretariat setting out a proposal by Norway to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention (UNEP/POPS/POPRC.13/4) and the Secretariat's verification of whether the proposal contained the information specified in Annex D to the Convention (UNEP/POPS/POPRC.13/INF/8).

41. Ms. Trine Celius, a representative of Norway, introduced the proposal.

42. In the ensuing discussion, many expressed support for the proposal to list PFHxS, its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention, with one member saying that sufficient information had been provided to raise concern about the adverse impacts of the chemical on human health, including as a result of liver toxicity and endocrine disruption. Supported by several other members, that member also endorsed the conclusion that PFHxS appeared to meet the Annex D screening criteria pertaining to bioaccumulation in the light of the toxicokinetic data and the significant length of reported half-lives in a number of species, suggesting that a more flexible approach to bioaccumulation should be applied. Another member questioned the conclusion reached on toxicity.

43. One member requested clarification of the read-across approach used in preparing the proposal and another suggested adding a paragraph setting out the justification of using the approach and explaining why PFOS and other perfluoroalkyl substances had been considered suitable surrogates for PFHxS.

44. One member, supported by several others, said that more detailed information was needed on the PFHxS-related compounds, with one of the other members suggesting that a list be provided to assist in information-gathering and to support the work on the scope of the chemical identity. Another, supported by a third, drew attention to a discrepancy in the number of related chemicals cited in the document and in the presentation, adding that additional information on the matter would avoid any misunderstandings when it came to preparing a draft risk profile.

45. The representative of Norway, responding to the latter point, said that her presentation had used information that had emerged after the proposal had been submitted to the Committee and that, if the original source material had since been updated, it would be useful to incorporate the changes. As to the lack of information concerning uses of the chemical, she said that they had not constituted a primary focus of the drafters preparing the nomination proposal and that more information on the matter would be provided if and when a draft risk profile was prepared, such as the findings of a project currently under way in Norway that had found high levels of the chemical in processes such as furniture surface treatment, wastewater treatment and hard metal plating. On the read-across approach, she said that the approach had been used relatively sparingly in preparing the proposal and that the Annex D screening criteria would have been considered as having been met without it.

46. The Committee established a contact group, chaired by Mr. Holland, to further discuss and revise the proposal to list PFHxS, its salts and PFHxS-related compounds in Annexes A, B and/or C to the Convention and to prepare a draft decision based on an initial text to be prepared by the Secretariat, taking into account the discussions in plenary.

47. Subsequently, the Committee adopted decision POPRC-13/3, by which it decided that the proposal to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds fulfilled the Annex D screening criteria and that an intersessional working group be established to review the proposal further and prepare a draft risk profile pertaining to the chemical. Mr. Holland would chair the working group and Ms. Delvin would serve as the drafter until the end of their respective terms of office on 4 May 2018, with Mr. Peter Dawson (New Zealand) assuming the chair and Ms. Rikke Donchil Holmberg (Denmark) the role of drafter from 5 May 2018. The decision is set out in annex I to the present report.

#### C. Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

48. In considering the sub-item, the Committee had before it a note by the Secretariat on the process 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 Convention (UNEP/POPS/POPRC.13/5). The evaluation was to determine the continued need for PFOS, its salts and PFOSF for the acceptable purposes and specific exemptions listed in Annex B. The process for the evaluation was set out in the annex to decision SC-6/4, as amended by decision SC-7/5. According to that process, two reports were to be submitted to the Conference of the Parties at its ninth meeting in 2019: one by the Committee on the assessment of alternatives to PFOS, its salts and PFOSF at the current meeting, and to complete the report on the assessment and provide comments on the Secretariat's draft report on the evaluation of PFOS, its salts and PFOSF at its fourteenth meeting, in 2018. Draft terms of reference for the assessment of alternatives were set out in document UNEP/POPS/POPRC.13/INF/9.

49. After introducing the documents, the representative of the Secretariat made a presentation on the various steps of the evaluation process, for purposes of clarity. Following her presentation, one member welcomed the participation in the process, on a more formal basis, of experts on best available techniques and best environmental practices. She also recalled that during the previous assessment of the alternatives to PFOS, its salts and PFOSF, the Committee's work had been limited by business confidentiality considerations, and said that success stories from industry would be useful.

50. The Committee then adopted decision POPRC-13/4, by which it decided to establish an intersessional working group, chaired by Mr. Janssen, to undertake the activities specified in the process set out in the annex to decision SC-6/4 in accordance with the terms of reference set out in the annex to document UNEP/POPS/POPRC.13/INF/9. The decision is set out in annex I to the present report.

## VI. Report on activities for effective participation in the work of the Committee

51. The representative of the Secretariat introduced a report on activities for effective participation in the work of the Committee (UNEP/POPS/POPRC.13/INF/10/Rev.1), outlining the capacity-building and training activities carried out and planned since the previous meeting of the Committee. In particular, she informed the members that the Secretariat was planning a regional workshop aimed at enhancing the effective participation of Parties and observers in the work of the Committee and the Chemical Review Committee of the Rotterdam Convention, with the financial support of the European Union and the Governments of Germany and Norway.

52. Subsequently, the Chair, reacting to a comment by the representative of an observer calling for the greater participation of Committee members in the meetings of the Conference of the Parties to the Stockholm Convention in order to provide clarifications on the work of the Committee, recalled that at the eighth meeting of the Conference of the Parties questions had indeed been addressed to Committee members.

53. The Committee took note of the information presented.

## VII. Workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee

54. In its consideration of the item, the Committee had before it a note by the Secretariat on a draft workplan for the intersessional period between the thirteenth and fourteenth meetings of the Committee (UNEP/POPS/POPRC.13/6). The representative of the Secretariat introduced the item, outlining the information in the note, following which the Committee adopted the workplan without amendment.

55. In accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of the annex to decision SC-1/7, the Committee established three intersessional working groups to carry forward the work necessary to implement its decisions.

56. The composition of the intersessional working groups is set out in annex II to the present report, while the workplan is set out in annex III.

#### VIII. Venue and date of the fourteenth meeting of the Committee

57. The Committee decided that its fourteenth meeting would be held at the headquarters of the Food and Agriculture Organization of the United Nations in Rome from 17 to 21 September 2018, back to back with the fourteenth meeting of the Chemical Review Committee of the Rotterdam Convention. It was further understood that the Chair, in consultation with the Vice-Chair and the Secretariat, might adjust the meeting arrangements to accord with the work requirements.

#### IX. Other matters

58. In adopting its agenda, the Committee agreed to discuss suggestions to improve the ways of presenting the information in the risk profile and risk management evaluation documents to meet the needs of the Conference of the Parties while ensuring conformity with document length and translation requirements. Subsequently, in the interest of time, the Committee agreed that the discussion on the matter be deferred to its fourteenth meeting.

59. No other matters were discussed.

#### X. Adoption of the report

60. The Committee adopted the present report on the basis of the draft report (UNEP/POPS/POPRC.13/L.1), as orally amended, on the understanding that Mr. Haryono, serving as the Rapporteur and working in consultation with the Secretariat, would be entrusted with its finalization.

#### XI. Closure of the meeting

61. Following the customary exchange of courtesies, the meeting was declared closed at 10 p.m. on Friday, 20 October 2017.

#### Annex I

#### Decisions adopted by the Persistent Organic Pollutants Review Committee at its thirteenth meeting

POPRC-13/1:	Dicofol
POPRC-13/2:	Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds
POPRC-13/3:	Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds
POPRC-13/4:	Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

#### POPRC-13/1: Dicofol

The Persistent Organic Pollutants Review Committee,

*Having concluded* in its decision POPRC-10/3 that dicofol fulfils the criteria set out in Annex D to the Stockholm Convention,

*Having evaluated* the risk profile for dicofol adopted by the Committee at its twelfth meeting<sup>1</sup> in accordance with paragraph 6 of Article 8 of the Convention,

*Having decided* in its decision POPRC-12/1 that dicofol is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and environmental effects such that global action is warranted,

*Having completed* the risk management evaluation for dicofol in accordance with paragraph 7 (a) of Article 8 of the Stockholm Convention,

1. *Adopts* the risk management evaluation for dicofol;<sup>2</sup>

2. *Decides*, in accordance with paragraph 9 of Article 8 of the Convention, to recommend to the Conference of the Parties that it consider listing dicofol in Annex A to the Convention without specific exemptions.

# POPRC-13/2: Pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

The Persistent Organic Pollutants Review Committee,

*Having concluded* in its decision POPRC-11/4 that pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid) meets the criteria set out in Annex D to the Stockholm Convention,

*Having evaluated* the risk profile for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds adopted by the Committee at its twelfth meeting in accordance with paragraph 6 of Article 8 of the Convention,

*Having decided* in its decision POPRC-12/2 that pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds are likely, as a result of their long-range environmental transport, to lead to significant adverse human health and environmental effects such that global action is warranted,

*Having completed* the risk management evaluation for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in accordance with paragraph 7 (a) of Article 8 of the Stockholm Convention,

1. *Adopts* the risk management evaluation<sup>3</sup> for pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds;<sup>4</sup>

2. *Decides*, in accordance with paragraph 9 of Article 8 of the Convention, to recommend to the Conference of the Parties that it consider listing pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in Annex A or B to the Convention with specific exemptions for the following:

(a) For five years from the date of entry into force of the amendment in accordance with Article 4:

- (i) Manufacture of semiconductors or related electronic devices:
  - a. Equipment or fabrication plant-related infrastructure containing fluoropolymers and/or fluoroelastomers with PFOA residues;

<sup>&</sup>lt;sup>1</sup> UNEP/POPS/POPRC.12/11/Add.1.

<sup>&</sup>lt;sup>2</sup> UNEP/POPS/POPRC.13/7/Add.1.

<sup>&</sup>lt;sup>3</sup> UNEP/POPS/POPRC.13/7/Add.2.

<sup>&</sup>lt;sup>4</sup> UNEP/POPS/POPRC.13/7/Add.2, para 21.

- b. Legacy equipment or legacy fabrication plant-related infrastructure: maintenance;
- c. Photo-lithography or etch processes;
- (ii) Photographic coatings applied to films;
- (iii) Textiles for oil and water repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety;

(b) For ten years from the date of entry into force of the amendment for manufacture of semiconductors or related electronic devices: refurbishment parts containing fluoropolymers and/or fluoroelastomers with PFOA residues for legacy equipment or legacy refurbishment parts;

(c) For use of perfluorooctyl iodide, production of perfluorooctyl bromide for the purpose of producing pharmaceutical products with a review of continued need for exemptions. The specific exemption should expire in any case at the latest in 2036;

3. *Invites* Parties and observers, including the relevant industries, to provide, by 12 January 2018, information that would assist the possible defining by the Committee of specific exemptions for production and use of PFOA, its salts and PFOA-related compounds in particular in the following applications:

(a) Membranes intended for use in medical textiles, filtration in water treatment, production processes and effluent treatment: information on the scope of the applications, used amounts, availability of alternatives and socio-economic aspects;

(b) Transported isolated intermediates in order to enable reprocessing in another site than the production site: information on the quantities used, extent of transport and risks, and use;

(c) Medical devices: information on specific applications/uses and timelines foreseen as needed for potential related exemptions;

(d) Implantable medical devices: information on the quantities used, extent of transport and risks, and use;

(e) Photo imaging sector: information on paper and printing, and information relevant for developing countries;

(f) Automotive industry: information on spare parts;

(g) Fire-fighting foams: information on chemical composition of mixtures and the volumes of pre-installed amount of fire-fighting foam mixtures.

For the applications above, information regarding socio-economic aspects as well as other relevant information is also welcomed;

4. *Further* invites Parties and observers to provide, by 12 January 2018, information that would assist the further evaluation by the Committee of pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds in relation to its unintentional formation and release, in particular from primary aluminium production and from incomplete combustion;

5. *Further invites* Parties and observers to provide, by 12 January 2018, information that would assist the further evaluation by the Committee of the chemical identity of PFOA-related compounds chemical list;

6. *Requests* the Secretariat to prepare a document on note (ii) of part I of Annex A to the Convention and scope of the reference to stockpiles within Article 6 of the Convention and make it available to the Committee for consideration at its fourteenth meeting;

7. *Notes* that there is evidence that sulfluramid degrades to PFOA and that sulfluramid is included in the risk profile on PFOS, its salts and PFOSF (UNEP/POPS/POPRC.2/17/Add.5), while the relevant CAS number is not included in Annex B;

8. *Decides* to address how to proceed with sulfluramid because the substance may meet the definition of a PFOA-related substance and sulfluramid does not fall under the definition of perfluorooctane sulfonic acid (CAS No: 1763-23-1), its salts and perfluorooctane sulfonyl fluoride (CAS No: 307-35-7) as set out in decision SC-4/17, within the process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention for which the Committee agreed on the terms of reference in decision POPRC-13/4; 9. *Requests* the Secretariat to compile the information provided in accordance with paragraphs 3, 4 and 5 above and make it available to the Committee;

10. *Decides* to establish an intersessional working group to assess the information provided in accordance with paragraphs 3, 4 and 5 above with the intention of strengthening the recommendation on the listing of the chemicals for consideration at its fourteenth meeting.

## POPRC-13/3: Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds

The Persistent Organic Pollutants Review Committee,

*Having examined* the proposal by Norway to list perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds in Annexes A, B and/or C to the Stockholm Convention on Persistent Organic Pollutants and having applied the screening criteria specified in Annex D to the Convention,

1. *Decides*, in accordance with paragraph 4 (a) of Article 8 of the Convention, that it is satisfied that the screening criteria have been fulfilled for perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS) as described in the evaluation contained in the annex to the present decision;

2. *Also decides*, in accordance with paragraph 6 of Article 8 of the Convention and paragraph 29 of decision SC-1/7, to establish an intersessional working group to review the proposal further and to prepare a draft risk profile in accordance with Annex E to the Convention;

3. *Further decides* that issues related to the inclusion of PFHxS salts and PFHxS-related compounds that potentially degrade to PFHxS should be dealt with in developing the draft risk profile;

4. *Invites*, in accordance with paragraph 4 (a) of Article 8 of the Convention, Parties and observers to submit to the Secretariat the information specified in Annex E, by 8 December 2017, for the following substances:

(a) Perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS);

(b) Any substance that contains the chemical moiety  $C_6F_{13}SO_2$  as one of its structural elements and that potentially degrades to PFHxS;

5. *Requests* the Secretariat, for the purpose of facilitating information collection, to make available to Parties and observers a non-exhaustive list of CAS numbers for PFHxS, its salts and PFHxS-related compounds when the Secretariat invites them to submit information specified in Annex E.

#### Annex to decision POPRC-13/3

# Evaluation of perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds against the criteria of Annex D

#### A. Background

1. The primary source of information for the preparation of the present evaluation was the proposal submitted by Norway (UNEP/POPS/POPRC.13/4).

#### **B.** Evaluation

2. The proposal was evaluated in the light of the requirements of Annex D regarding the identification of the chemical (paragraph 1 (a)) and the screening criteria (paragraph 1 (b)–(e)):

#### (a) Chemical identity:

(i) Adequate information was provided in the proposal, which relates to PFHxS (CAS No: 355-46-4), its salts and PFHxS-related compounds;

(ii) The chemical structures were provided;

The chemical identity of PFHxS, its salts and PFHxS-related compounds is adequately established. The proposal includes PFHxS-related compounds that may degrade to PFHxS, including any substances that contain the chemical moiety  $[C_6F_{13}SO_2]$ .

#### (b) Persistence:

- (i) No environmental half-lives for PFHxS are available;
- (ii) The PFHxS is a member of the per- and polyfluoroalkyl substance (PFAS) group. Due to their strong carbon-fluorine bonds, PFASs are very persistent and resistant to chemical, thermal and biological degradation (Ref. 1). In a field study on photolysis of PFHxS conducted at high altitude in Mt. Mauna and Mt. Tateyama, no significant photolysis was observed for PFHxS following, respectively, 106 and 20.5 days of exposure (Ref. 2).

PFHxS are found in soil, water and a variety of biota in the vicinity of fire-fighting training areas following the historical use of PFHxS-containing foams, showing that it is persistent and does not undergo any abiotic or biotic degradation under normal environmental conditions (Refs. 3, 4). PFHxS persistence is also shown by its frequent detection in biota and the environment, including in the Arctic (Ref. 5). Furthermore, PFHxS was recently identified as very persistent and very bioaccumulative (vPvB) in the European Union (Refs. 6, 7).

There is sufficient evidence that PFHxS meets the criterion on persistence.

#### (c) Bioaccumulation:

- PFHxS have both hydrophobic and hydrophilic properties and are expected to form multiple layers in an octanol-water mixture, which makes it experimentally difficult to measure the log Kow (Ref. 8). Therefore log Kow may not be relevant for assessing bioaccumulation. PFHxS is also fully ionized in the environment (Ref. 9). Due to high water solubility, the bioconcentration factor (BCF) and bioaccumulation factor (BAF) for PFHxS are below 5000 (Ref. 10). PFHxS binds to proteins in the liver and blood and is expected to be quickly excreted through gill permeation in fish (Ref. 11);
- (ii) and (iii) There is evidence that PFHxS biomagnifies in various food chains, as biomagnification factors (BMFs) from several locations, including in the Arctic, are higher than 1 (Refs. 12, 13, 14, 15). In addition, diet studies in pig report BMFs higher than 1 (Ref. 16);

The half-life of PFHxS in human serum is approximately 8 years and thus the highest half-life ever reported for any PFAS (Ref. 17). For comparison, half-lives of PFOS and PFOA are 5.4 and 3.8 years, respectively. The half-life in pig is reported to be 713 days (Ref. 16) and in monkey is 141 days in male and 87 days in female (Ref. 18);

PFHxS have been found in many species, including in polar cod, glaucous gulls, ringed seals and polar bears in the Arctic (Ref. 5). Recent studies report that PFHxS is the third most abundant PFAS in polar bears at Svalbard (Refs. 19, 20) and that levels of PFHxS are increasing (Ref. 20);

PFHxS have been found in human populations in a number of birth cohorts, where PFHxS was detected at >98% in all five cohorts, and concentrations were highest in Danish women followed by Greenlandic women (Ref. 21). Furthermore, PFHxS, along with PFOS and PFOA, is the most frequently detected PFAS in blood-based samples from the general population (Ref. 22) and present in the umbilical cord blood and breast milk (Refs. 23, 24).

There is sufficient evidence that PFHxS meets the criterion on bioaccumulation.

#### (d) Potential for long-range environmental transport:

 PFHxS is detected at different locations in the Arctic in a variety of environmental matrices and biota, including in air, snow, seawater, freshwater lakes and sediments, fish, seabirds, marine and terrestrial mammals (Refs. 5, 25). In the Antarctic, PFHxS has been detected in lichen, in fur seal liver and in penguin faeces (Ref. 5). High levels have been detected in Arctic top predators, in particular in polar bears from Svalbard (Refs. 20, 26);

- (ii) Environmental monitoring shows that PFHxS is globally distributed over long geographical distances to remote areas via ocean currents and possibly also via air, where it is detected in the environment and biota at levels that indicate long-range transport from sources in other global regions. As the ocean acts as a long-term reservoir of PFAS, the input of PFHxS to the Arctic will likely continue over the long term, particularly as the volume of Atlantic water masses transported northwards has increased during the last two decades (Refs. 5, 20). There is also evidence that PFHxS levels in Svalbard polar bears have increased between 4.9 and 5.1 per cent per year for the period 2009–2014 and that the increased levels are probably due to long-range environmental transport (Ref. 20);
- (iii) Llorca et al. (2012) (Ref. 27) predicts that PFHxS, like most other perfluoroalkyl acids, is a "swimmer", i.e., a chemical that is anticipated to undergo long-range environmental transport in water, by using the modelling result from Lohmann et al. (2007) (Ref. 28).

There is sufficient evidence that PFHxS meets the criterion for long-range environmental transport.

#### (e) Adverse effects:

 Epidemiological studies have shown the association between serum levels of PFASs and PFHxS and serum levels of cholesterol, lipoproteins, triglycerides and free fatty acids (Refs. 29, 30);

Endocrine-disrupting effects on the thyroid hormone pathway have been shown for PFHxS both from *in vitro* studies (Refs. 31, 32) and epidemiological studies (Refs. 33, 34, 35, 36, 37, 38);

Epidemiological studies indicate the potential for immunotoxic effects caused by PFHxS exposure in children. An inverse association was observed between maternal PFHxS serum levels and the level of anti-rubella antibodies and number of episodes of gastroenteritis at age 3 (Ref. 39). Grandjean et al. (2012) (Ref. 40) observed odds ratios of 1.78 (1.08; 2.93) (95 per cent CIs) for inadequate antibody concentrations at age 7 for tetanus vaccine. Furthermore, increased incidence of asthma has been indicated in children exposed to PFHxS (Refs. 41, 42). In an *in vitro* study, a range of related PFASs (PFBS, PFOS, perfluorooctane sulfonamide (PFOSA), PFOA, perfluorodecanoic acid (PFDA) and 8:2 fluorotelomer alcohol (FTOH)) showed immunosuppressive potential (Ref. 43), suggesting this might occur for PFHxS through the same mechanisms as observed for PFBS and PFOS;

(ii) Experimental studies in rodents show adverse effects to the liver (Ref. 44), as well as effects on nuclear receptors that regulate metabolism, effects on serum levels of cholesterol, lipoproteins, triglycerides and free fatty acids in rodent studies (Ref. 44, 45, 46). Effects on the liver included a dose-dependent increase in hepatocellular hypertrophy and liver weight (56 per cent increase in male rats following 42 days of exposure at 10 mg/kg/d (Ref. 44)). In addition, liver steatosis was observed in both wild type and peroxisome proliferator-activated receptor (PPAR)-alpha null mice after 7 days of oral exposure to 10 mg/kg/d PFHxS, whereas exposure to 50 mg/kg/d of the PPAR-alpha agonist WY-14643 did not induce this effect in the PPAR-alpha null mice indicating that the mechanism of steatosis for PFHxS is at least partly independent of PPAR-alpha (Ref. 45);

Thyroid organ toxicity (hypertrophy/hyperplasia) was observed in male rats exposed to PFHxS at 10 mg/kg per day for 42 days (Ref. 44). PFHxS has been shown to influence thyroid hormone pathways and genes related to neuronal development in birds at 8.9 to 38,000 ng/g (Refs. 47, 48, 49). Negative correlations between serum PFHxS and thyroid hormones T3 has been observed in Arctic birds (Ref. 50) and recent studies on polar bear from Svalbard

suggested a possible alteration of the thyroid hormone homeostasis by PFASs (including PFHxS) in polar bears (Ref. 51);

Neurotoxic and neurodevelopmental effects have been observed in controlled laboratory experiments in mice and rats (Refs. 52, 53, 54). Furthermore, field studies on polar bears from East Greenland indicating associations between levels of PFASs, including PFHxS, in the brain and alterations of neurochemical markers and brain steroid hormones (Refs. 55, 56);

Other effects observed include delayed development in northern leopard frog (*Rana pipiens*) tadpoles exposed to 10 ug/L PFHxS for 40 days. This is the first study to show sublethal effects of PFHxS on amphibians at environmentally relevant levels (Ref. 57). Endocrine-disrupting effects were observed as altered brain estrogen- and androgen receptor levels in frog tadpoles after exposure to both PFOS and PFBS at 0.1 ug/L (Ref. 58). One could expect similar effects from exposure to PFHxS.

There is sufficient evidence that PFHxS meets the criterion on adverse effects.

#### C. Conclusion

3. The Committee concludes that PFHxS meets the screening criteria specified in Annex D.

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# **POPRC-13/4:** Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention

#### The Persistent Organic Pollutants Review Committee

1. *Decides* to establish an intersessional working group to undertake, in accordance with the revised schedule set out in the annex to decision SC-7/5, the activities specified in the process set out in the annex to decision SC-6/4 for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Convention;

2. *Agrees* to work in accordance with the terms of reference for the assessment of alternatives to perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride set out in the annex to document UNEP/POPS/POPRC.13/INF/9.

#### Annex II

#### **Composition of intersessional working groups (2017–2018)**

# Working group on pentadecafluorooctanoic acid (CAS No: 335-67-1, PFOA, perfluorooctanoic acid), its salts and PFOA-related compounds

#### **Committee members**

Mr. Jack Holland (Australia)

- Ms. Ingrid Hauzenberger (Austria)
- Ms. Tamara Kukharchyk (Belarus)
- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada)
- Mr. Pavel Čupr (Czechia)
- Mr. Agus Haryono (Indonesia)
- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Helen Jacobs (Jamaica)
- Ms. Katinka Elvira van der Jagt (Luxembourg) (Drafter)
- Mr. Rameshwar Adhikari (Nepal) (Chair)
- Mr. Martien Janssen (Netherlands)
- Ms. Thabile Ndlovu (Swaziland)
- Ms. Maria Delvin (Sweden)
- Mr. Andreas Buser (Switzerland)

#### Observers

- Mr. Júlio Sérgio de Britto (Brazil)
- Mr. Jean-François Ferry (Canada)
- Ms. Rikke Holmberg (Denmark)
- Mr. Sylvain Bintein (European Union)
- Mr. Alexander Potrykus (European Union)
- Mr. Timo Seppälä (Finland)
- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Sam Adu-Kumi (Ghana)
- Ms. Yenny Meliana (Indonesia)
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)
- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)

- Mr. Kiyohiro Kubota (Japan)
- Mr. Ryosuke Nabeoka (Japan)
- Mr. Peter Dawson (New Zealand)
- Mr. Cees Luttikhuizen (Netherlands)
- Ms. Trine Celius (Norway)
- Ms. Christel Moræus Olsen (Norway)
- Ms. Mihaela Claudia Paun (Romania)
- Ms. Ekaterina Gudkova (Russian Federation)
- Mr. Pavel Shirokov (Russian Federation)
- Mr. Ivan Djurickovic (Serbia)
- Ms. Victorine Augustine Pinas (Suriname)
- Mr. Daniel Borg (Sweden)
- Ms. Svitlana Sukhorebra (Ukraine)
- Mr. Ian Doyle (United Kingdom of Great Britain and Northern Ireland)
- Ms. Liz Lawton (United Kingdom of Great Britain and Northern Ireland)
- Ms. Karissa Taylor Kovner (United States of America)
- Ms. Laura Nazef (United States of America)
- Ms. Pamela Miller (Alaska Community Action on Toxics)
- Mr. Andrea Volpato (Council of Chemists of the Province of Treviso)
- Mr. Carlo Giovanni Moretto (Council of Chemists of the Province of Treviso)
- Mr. Mark Trewhitt (CropLife International)
- Mr. Philippe Chatton (CropLife International)
- Mr. Richard F. Holt (FluoroCouncil)
- Mr. Ronald Bock (FluoroCouncil)
- Ms. Carole Mislin (FluoroCouncil)
- Mr. Heinz Christmann (FluoroCouncil)
- Mr. Takayuki Nakamura (FluoroCouncil)
- Mr. Keiichi Ohnishi (FluoroCouncil)
- Mr. Kevin Cockshott (FluoroCouncil)
- Mr. K. Russel LaMotte (Global Silicones Council)
- Mr. Anders Bolmstedt (Health Care Without Harm)
- Mr. Eddy Michiels (Imaging and Printing Association Europe)
- Ms. Nicole Mlade (International Council of Chemical Association (ICCA))
- Mr. Matthew Jamieson (International Federation of Pharmaceutical Manufacturers and Associations)
- Mr. Jamshed Ghandhi (International Federation of Pharmaceutical Manufacturers and Associations)
- Mr. Zhanyun Wang (International Panel on Chemical Pollution)
- Mr. Justin Boucher (International Panel on Chemical Pollution)
- Ms. Mariann Lloyd-Smith (International POPs Elimination Network (IPEN))
- Mr. Joseph DiGangi (International POPs Elimination Network (IPEN))
- Ms. Sara Brosché (International POPs Elimination Network (IPEN))
- Ms. Eva Kruemmel (Inuit Circumpolar Council)

- Mr. Luiz Eugenio Pedro de Freitas (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Ms. Juliana Berti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Edson Dias da Silva (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Luiz Carlos Forti (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Mr. Ricardo Edson Merino (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))

Mr. Sanjay Baliga (SEMI)

## Working group on perfluorohexane sulfonic acid (CAS No: 355-46-4, PFHxS), its salts and PFHxS-related compounds

#### **Committee members**

- Ms. Ingrid Hauzenberger (Austria)
- Mr. Jack Holland (Australia) (Chair until 4 May 2018)
- Ms. Tamara Kukharchyk (Belarus)
- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada)
- Mr. Pavel Čupr (Czechia)
- Mr. Agus Haryono (Indonesia)
- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Helen Jacobs (Jamaica)
- Ms. Katinka Elvira van der Jagt (Luxemburg)
- Mr. Rameshwar Adhikari (Nepal)
- Mr. Martien Janssen (Netherlands)
- Ms. Thabile Ndlovu (Swaziland)
- Ms. Maria Delvin (Sweden) (Drafter until 4 May 2018)
- Mr. Andreas Buser (Switzerland)

#### Observers

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- Ms. Rikke Holmberg (Denmark) (Drafter from 5 May 2018)
- Mr. Sylvain Bintein (European Union)
- Mr. Alexander Potrykus (European Union)
- Mr. Timo Seppälä (Finland)
- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Sam Adu-Kumi (Ghana)
- Mr. Manoj Gangeya (India)
- Mr. Amir Nasser Ahmadi (Iran (Islamic Republic of))
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)

- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)
- Mr. Kiyohiro Kubota (Japan)
- Mr. Ryosuke Nabeoka (Japan)
- Mr. Peter Dawson (New Zealand) (Chair from 5 May 2018)
- Ms. Trine Celius (Norway)
- Ms. Christel Moræus Olsen (Norway)
- Ms. Vilma Morales Quillama (Peru)
- Ms. Mihaela Claudia Paun (Romania)
- Ms. Ekaterina Gudkova (Russian Federation)
- Mr. Pavel Shirokov (Russian Federation)
- Mr. Ivan Djurickovic (Serbia)
- Ms. Victorine Augustine Pinas (Suriname)
- Mr. Daniel Borg (Sweden)
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- Ms. Laura Nazef (United States of America)
- Mr. Anas Ali Saeed Alnadhari (Yemen)
- Ms. Pamela Miller (Alaska Community Action on Toxics)
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- Ms. Sara Brosché (International POPs Elimination Network (IPEN))
- Ms. Eva Kruemmel (Inuit Circumpolar Council)
- Mr. Sanjay Baliga (SEMI)

## Working group on perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride

#### **Committee members**

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- Ms. Estefania Moreira (Brazil)
- Ms. Michelle Kivi (Canada) Mr. Pavel Čupr (Czechia)
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- Mr. Seyed Jamaleddin Shahtaheri (Iran (Islamic Republic of))
- Mr. Mineo Takatsuki (Japan)
- Ms. Katinka Elvira van der Jagt (Luxemburg)
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- Ms. Sandrine Andres (France)
- Ms. Caren Rauert (Germany)
- Mr. Manoj Gangeya (India)
- Ms. Ms. Ajeng Arum Sari (Indonesia)
- Mr. Akihiko Ikegawa (Japan)
- Ms. Kayoko Inoue (Japan)
- Mr. Nobutada Kimura (Japan)
- Mr. Kenichiro Fukunaga (Japan)
- Mr. Noriyasu Nagai (Japan)
- Ms. Kanako Seki (Japan)
- Ms. Hiroko Arataki (Japan)
- Mr. Kiyohiro Kubota (Japan)
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- Mr. Peter Dawson (New Zealand)
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- Mr. Ricardo Edson Merino (Leaf-Cutting Ant Baits Industries Association (ABRAISCA))
- Ms. Meriel Watts (Pesticide Action Network Asia and the Pacific)
- Ms. Emily Marquez (Pesticide Action Network North America)
- Mr. Sanjay Baliga (SEMI)

#### Annex III

Scheduled date	Interval between activities (weeks)	Activity (for each chemical under review)
20 October 2017	_	The Committee establishes an intersessional working group
27 October 2017	1	The Secretariat requests Parties and observers to provide the information specified in Annex E for a draft risk profile
8 December 2017	6	Parties and observers submit the information specified in Annex E for a draft risk profile to the Secretariat
19 January 2018	6	The working group chair and the drafter complete the first draft
2 February 2018	2	The members of the working group submit comments on the first draft to the chair and the drafter
16 February 2018	2	The working group chair and the drafter finish their review of the comments from the working group and complete the second draft and a compilation of responses to those comments
23 February 2018	1	The Secretariat distributes the second draft to Parties and observers for comments
6 April 2018	6	Parties and observers submit their comments to the Secretariat
27 April 2018	3	The working group chair and the drafter review the comments from Parties and observers and complete the third draft and a compilation of responses to those comments
30 April 2018	<1	The Secretariat sends the third draft to the working group
14 May 2018	2	The members of the working group submit their final comments on the third draft to the chair and the drafter
28 May 2018	2	The working group chair and the drafter review the final comments and complete the fourth (final) draft and a compilation of responses to those comments
4 June 2018	1	The Secretariat sends the final draft to the Division of Conference Services, United Nations Office at Nairobi, for editing and translation
30 July 2018	8	The Division of Conference Services completes the editing and translation of the final draft
6 August 2018	1	The Secretariat distributes the final draft in the six official languages of the United Nations
17–21 September 2018	6	Fourteenth meeting of the Committee

# Workplan for the preparation of a draft risk profile during the intersessional period between the thirteenth and fourteenth meetings of the Committee

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