

## **CRC-9/4: Fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L)**

*The Chemical Review Committee,*

*Recalling* Article 6 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,

1. *Concludes* that the proposal for listing fenthion 640 ULV (CAS No. 55-38-9) as a severely hazardous pesticide formulation in Annex III<sup>1</sup> submitted by Chad meets the criteria set out in part 3 of Annex IV to the Convention;
2. *Adopts* the rationale for the Committee's conclusion set out in the annex to the present decision;
3. *Recommends*, in accordance with paragraph 5 of Article 6 of the Convention, that the Conference of the Parties should list fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L) (CAS No. 55-38-9) in Annex III to the Convention as a severely hazardous pesticide formulation;
4. *Decides*, in accordance with paragraph 1 of Article 7 of the Convention, to prepare a draft decision guidance document for fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L);
5. *Decides*, in accordance with the process for drafting decision guidance documents set out in decision RC-2/2, that the composition of the intersessional drafting group to prepare the draft decision guidance document for fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L) and the workplan of that group shall be as set out in annexes II and III to the report of the Committee's ninth meeting, respectively.

### **Annex to decision CRC-9/4**

#### **Rationale for the conclusion by the Chemical Review Committee that the proposal submitted by Chad for listing fenthion 640 ULV in Annex III to the Rotterdam Convention as a severely hazardous pesticide formulation meets the criteria of part 3 of Annex IV to the Convention**

**(a) Scope of the proposal**

1. The proposal submitted by Chad referred to the formulation Fenthion 640 ULV (concentration of 640 g/L fenthion). This is an ultra low volume (ULV) formulation.
2. The proposal and supporting documentation were made available to the Chemical Review Committee for its consideration in documents UNEP/FAO/RC/CRC.9/4 and Add. 1 and 2.
3. Fenthion 640 ULV was used as an avicide against granivorous birds (*Quelea quelea*) in the context of bird control to reduce damage to grain crops. The product was used with a motorized backpack sprayer at a dose of 1.8 to 3 L/ha in 2009, 2011 and 2012.
4. The formulation is registered; the permitted uses are for avian control. Use is only permitted to be carried out by the Directorate of Plant Protection and Conditioning (DPVC).
5. After a first intervention in 2009 by governmental order, which was carried out by seven teams, the Ministry of Agriculture and Irrigation through the Directorate of Plant Protection and Conditioning (DPVC) organized in 2011 and 2012 a mission composed of four teams, three of which were charged with survey and control and the fourth with supplies and monitoring.
6. One incident is reported in detail. In the course of the avian control mission a 60 year old technician who had a long history of hypertension (the technician had hypertension but did not signal it to the DPVC when he departed on the control campaign) was intoxicated in a nest situated 200 km from N'Djamena (Bokoro) on 17 June 2011. The technician took part in both the filling of the sprayer and

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<sup>1</sup> UNEP/FAO/RC/CRC.9/4, UNEP/FAO/RC/CRC.9/4/Add.1, UNEP/FAO/RC/CRC.9/4/Add.2.

application of the pesticide. He was wearing protective clothing during the whole operation, including a hat, glasses, mask, a cotton overall, gloves and boots covered by trousers. The effects were observed one hour after application. The intoxicated person showed the following symptoms: vomiting, abundant salivation and titubation. He was immediately brought to Bokoro hospital, then moved to the emergency department of N'Djamena hospital, where he received further care. On the advice of the doctor, he was discharged the same day for home care. Unfortunately, despite the care at home, he relapsed on the fourth day and passed away.

7. In document UNEP/FAO/RC/CRC.9/4/Add.1 a second case of lethal intoxication of an operator following handling/land treatment with Fenthion 640 ULV is mentioned as occurring in 2009. In addition, one operator had gone into a coma for one week under the same circumstances. However, these cases were not included in the pesticide incident report form that was included in the proposal.

8. The documentation required according to part 1 of Annex IV to the Convention was submitted by Chad in its proposal and published in PIC Circular XXXVI, of December 2012.

9. The information collected by the Secretariat according to part 2 of Annex IV to the Convention was submitted by Parties and observers and was made available to the Committee in document UNEP/FAO/RC/CRC.9/4/Add.2.

**(b) Annex IV, part 3, paragraph (a) criterion**

*In reviewing the proposals forwarded by the Secretariat pursuant to paragraph 5 of Article 6, the Chemical Review Committee shall take into account:*

*(a) The reliability of the evidence indicating that use of the formulation, in accordance with common or recognized practices within the proposing Party, resulted in the reported incidents;*

10. In Chad, Fenthion 640 ULV is reported to have been used in the field near grain crops and it was applied by means of motorized backpack sprayers against bird roosts at rates of 1.8 to 3 L/ha. The product label gives, among other information, an indication of high toxicity by inhalation and prolonged ingestion.

11. The use of Fenthion 640 ULV was by governmental order of the Ministry of Agriculture and Irrigation through the Directorate of Plant Protection and Conditioning (DPVC), which had organized bird control teams in 2009, 2011 and 2012.

12. An incident was reported of lethal intoxication of a 60 year old technician who had been involved in mixing and loading and had sprayed the product onto bird nests during the night by the use of a backpack sprayer. He was wearing protective clothing during the whole operation: a protective kit comprising a hat, glasses, mask, a cotton overall, gloves and boots covered by trousers.

13. Although there was uncertainty regarding the causal link between the death of the operator and the use of Fenthion 640 ULV taking into account his precondition of hypertension, the operator's symptoms can be clearly linked to intoxication resulting from that use. Further it is noted that the adverse effects from organophosphates poisoning generally can be acute, intermediate or delayed.

14. The Committee concluded that the evidence indicating that the use of Fenthion 640 ULV in accordance with common and recognized practices within Chad resulted in the reported incident was reliable.

15. The Committee concluded that this criterion was met.

**(c) Annex IV, part 3, paragraph (b) criterion**

*(b) The relevance of such incidents to other States with similar climate, conditions and patterns of use of the formulation;*

16. Documentation was available to the Committee (UNEP/FAO/RC/CRC.9/4/Add.2) indicating that the above listed conditions for Chad are similar to the conditions prevailing in other African States. It is reported from Gambia that in the 1980s the product was used for bird control (UNEP/FAO/RC/CRC.9/4/Add.2). The product is used for control of granivorous birds in Niger and has been used for that purpose for more than 20 years in Mauritania (UNEP/FAO/RC/CRC.9/4/Add.2). In a master's thesis from Mauritania, cases of poisoning caused by avicide treatments of fenthion are reported (UNEP/FAO/RC/CRC.9/4/Add.2).

17. Various formulations of fenthion are in use as an insecticide in several countries (e.g., Australia, Madagascar, Morocco and New Zealand).

18. A case of poisoning with a different fenthion formulation is reported from Norway in the context of a suicide attempt (UNEP/FAO/RC/CRC.9/4/Add.2). Poisoning incidents from the use of fenthion in mosquito control are reported by the Food and Agriculture Organization of the United Nations (UNEP/FAO/RC/CRC.9/4/Add.2).

19. Taking into account the information available, the Committee concluded that the criterion was met.

**(d) Annex IV, part 3, paragraph (c) criterion**

*(c) The existence of handling or applicator restrictions involving technology or techniques that may not be reasonably or widely applied in States lacking the necessary infrastructure;*

20. In Chad, the application of Fenthion 640 ULV is restricted to technicians specialized in bird control (Plant Protection Service teams equipped with motorized backpack sprayers or aerial application by specialized companies).

21. Information on general handling or applicator restrictions for the use of products containing fenthion have been provided by several parties, namely, the European Union, Australia and Norway. The information provided by parties shows that personal protective equipment is required in order to protect operators from adverse effects when applying plant protection products containing fenthion.

22. Taking into account the information available, the Committee concluded that the criterion was met.

**(e) Annex IV, part 3, paragraph (d) criterion**

*(d) The significance of reported effects in relation to the quantity of the formulation used;*

23. In Chad, Fenthion 640 ULV is reported to have been used in the field near grain crops. It was applied to bird roosts in 2009, 2011 and 2012 by means of motorized backpack sprayers. The following quantities were used: in 2009 112 litres was used to treat 45 dormitories (59 ha) for ten days for one hour per day by six land teams at a dose of 1.8 L/ha; in 2011 105.5 litres was used to treat 16 dormitories (54.7 ha) for 30 days for one hour per day by six land teams at a dose of 1.9 L/ha; in 2012 275 litres was used to treat 25 dormitories (53 ha) for 30 days for one hour per day by 3 land teams at a dose of 3 L/ha.

24. In 2011, the mission lasted 45 days for the teams in charge of survey and control and 15 days for the team in charge of supply and monitoring, from 6 June to 21 July 2011.

25. The information from Chad demonstrates that fenthion 640 ULV was used at a commonly used dose and on a small area only. However, the observed effects were quite important since serious health problems were reported.

26. Taking into account the information available, the Committee concluded that this criterion was met.

**(f) Annex IV, part 3, paragraph (e) criterion**

*(e) That intentional misuse is not in itself an adequate reason to list a formulation in Annex III.*

27. Intentional misuse was not reported as a reason for the proposal.

28. Taking into account the information available, the Committee concluded that this criterion was met.

**(g) Conclusion**

29. The Committee concluded at its ninth session that the proposal from Chad to list Fenthion 640 ULV (640 g/L fenthion) in Annex III to the Convention as a severely hazardous pesticide formulation met the documentation requirements of Annex IV part 1 and the criteria set out in part 3 of Annex IV to the Convention, considering the information collected by the Secretariat according to part 2 of Annex IV.

30. The Committee therefore recommends that fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L) (CAS No. 55-38-9) be included in Annex III to the Rotterdam Convention as a severely hazardous pesticide formulation.

## Annex II

### Composition of intersessional drafting groups (2013–2014)<sup>2</sup>

#### Drafting group on methamidophos

Chair: Mr. Gilberto Fillmann (Brazil)

Co-Chair: Mr. Jürgen Helbig (Spain)

Members: Ms. Anja Bartels (Austria)  
Ms. Anahit Aleksandryan (Armenia)\*  
Ms. Jacqueline Arroyo (Ecuador)\*  
Ms. Miriam Seng (Germany)  
Mr. Peter Opiyo (Kenya)\*  
Mr. Arturo Gavilán (Mexico)  
Ms. Leonarda van Leeuwen (Netherlands)  
Ms. Susan Collier (New Zealand)\*  
Mr. Muhammad Bashir Khan (Pakistan)\*  
Ms. Vilma Morales Quillama (Peru)\*  
Mr. Mohamad Saleh I.T.Makki (Saudi Arabia)  
Mr. Azhari Omer Abdelbagi (Sudan)\*  
Mr. Abdullah M. Shamlan (Yemen)\*  
Mr. Boniface Mbewe (Zambia)

#### Drafting group on fenthion (ultra low volume (ULV) formulations at or above 640 g active ingredient/L)

Chair: Ms. Anja Bartels (Austria)

Co-Chair: Ms. Parvoleta Luleva (Bulgaria)

Members: Mr. Victor N’Goka (Congo)  
Mr. Droh Lanciné Goné (Côte d’Ivoire)\*  
Ms. Jacqueline Arroyo (Ecuador)\*  
Ms. Miriam Seng (Germany)  
Mr. Ram Niwas Jindal (India)  
Mr. Mehdi Ghaemian (Islamic Republic of Iran)\*  
Mr. Michael Ramsay (Jamaica)\*  
Mr. Peter Opiyo (Kenya)\*  
Ms. Amal Al-Rashdan (Kuwait)  
Mr. Gaussono Kanouté (Mali)  
Mr. Sidi Ould Aloueimine (Mauritania)\*  
Mr. Arturo Gavilán (Mexico)  
Ms. Leonarda van Leeuwen (Netherlands)  
Ms. Magdalena Frydrych (Poland)  
Mr. Jung-Kwan Seo (Republic of Korea)  
Mr. Jürgen Helbig (Spain)  
Mr. Azhari Abdelbagi (Sudan)\*  
Ms. Sarah Maillefer (Switzerland)

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<sup>2</sup> Committee members whose names are marked with an asterisk will end their terms on 30 April 2014.

## Annex III

### Workplan for the preparation of draft decision guidance documents

Tasks to be carried out	Responsible persons	Deadlines
Draft an internal proposal based on the information available to the Committee	Chair Co-Chair	15 December 2013
Send draft internal proposal to drafting group members for comments via e-mail	Chair Co-Chair	15 December 2013
Replies	Drafting group members	20 January 2014
Update internal proposal based on comments from drafting group members	Chair Co-Chair	20 February 2014
Send updated internal proposal to Committee members and observers for comments via e-mail	Chair Co-Chair	20 February 2014
Replies	Committee members and observers	31 March 2014
Draft a decision guidance document based on the comments from Committee members and observers	Chair Co-Chair	28 April 2014
Send draft decision guidance document to drafting group members for comments via e-mail	Chair Co-Chair	28 April 2014
Replies	Drafting group members	9 May 2014
Finalize draft decision guidance document based on the comments of the drafting group	Chair Co-Chair	30 May 2014
Send draft decision guidance document to Secretariat	Chair Co-Chair	30 May 2014
Present draft decision guidance document to the Committee at its tenth meeting		October 2014

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