

Annex F Questionnaire (one per chemical)

Chemical name (as used by the POPs Review Committee (POPRC))	Lindane
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Explanatory note:

1. This chemical is undergoing a risk management evaluation. It has already satisfied the screening criteria set out in paragraph 4 (a) of Article 8 of the Convention. A risk profile has also been completed for this chemical in accordance with paragraph 6 of Article 8 and with Annex E to the Convention.

Introductory information	
Name of the submitting Party/observer	Hazardous Substances Control Group Bureau of Cosmetics and hazardous Substances Control Food and Drug Administration Ministry of Public Health
Contact details (name, telephone, e-mail) of the submitting Party/observer	Somchai Prechathaveekid Director of the Hazardous Substances Control Group psomchai@health.moph.go.th Tel. 66 2 590 7300
Date of submission	February 16, 2005

Additional Annex E information	
(i) Production data, including quantity and location	Despite no production of lindane in Thailand, bulk lindane-containing products are imported to be formulated and repacked. Prior to do so, they are subject to register and get permission from the FDA. Approximately, a maximum of 35,000 kg/year of lindane-containing products (or 365 kg/year of lindane) are permitted to formulate and re-pack.
(ii) Uses	Formulations of lindane containing 0.3 –1 % W/W, 2% W/W, and 24% W/W are registered for treatment of head lice and skin scabies, use on pets, and termite control, respectively. Apparently, it is noted that use of lindane-containing products on pets and termite control has been discontinued. Only the manufacturing permits for formulations for treatment of head lice and skin scabies are valid.
(iii) Releases, such as discharges, losses and emissions	No data

Explanatory note:

2. This information was requested for preparation of the risk profile in accordance with Annex E of the Convention. The POPRC would like to collect more information on these items. If you have additional or updated information, kindly provide it.

A. Efficacy and efficiency of possible control measures in meeting risk reduction goals (provide summary information and relevant references):	
(i) Describe possible control measures	Ban on all products and uses
(ii) Technical feasibility	This possible control measure has been discussed by the Hazardous Substances Committee and the National Drug Committee. Banning of lindane on products used on pets or for termite control is under consideration. There are several alternatives to lindane for use on pets or termite control. These alternatives are efficient as and safer than lindane. Lindane-containing products to use on pets or for termite control has been discontinued on the market and their manufacturing permits are expired. In contrast, banning on medical use is still in question because the current substitutes for the treatment of head lice and scabies appeared not be effective as lindane.
(iii) Costs, including environmental and health costs	-

Explanatory notes:

3. If relevant, provide information on uses for which there may be no suitable alternative or for which the analysis of socio-economic factors justify the inclusion of an exemption when considering listing decisions under the Convention. Detail the negative impacts on society that could result if no exemption were permitted.
4. "Risk reduction goals" could refer to targets or goals to reduce or eliminate releases from intentional production and use, unintentional production, stockpiles, wastes, and to reduce or avoid risks associated with long-range environment transport.
5. Provide the costs and benefits of implementing the control measure, including environmental and health costs and benefits.
6. Where relevant and possible "costs" should be expressed in US dollars per year.

B. Alternatives (products and processes) (provide summary information and relevant references):	
(i) Describe alternatives	<u>Treatment of head lice and scabies:</u> permethrin, cabaryl, stemona root extract, benzyl benzoate <u>Use on pets:</u> permethrin, flumethrin, cypermetgrin, etc. <u>Termite control:</u> alpha-cypermethrin, bifenthrin, cypermethrin, delta-methrin, etc.
(ii) Technical feasibility	Alternative products are on the market. Particularly, the alternatives for use on pets or for termite control are widely used and replaced lindane-containing products.
(iii) Costs, including environmental and health costs	-
(iv) Efficacy	-

(v) Risk	-
(vi) Availability	yes
(vii) Accessibility	yes

Explanatory notes:

7. Provide a brief description of the alternative product or process and, if appropriate, the sector(s), use(s) or user(s) for which it would be relevant.
8. If several alternatives could be envisaged for the chemical under consideration, including non-chemical alternatives, provide information under this section for each alternative.
9. Specify for each proposed alternative whether it has actually been implemented (and give details), whether it has only reached the trial stage (again, with details) or whether it is just a proposal.
10. The evaluation of the efficacy should include any information on the performance, benefits, costs, and limitations of potential alternatives.
11. Specify if the information provided is connected to the specific needs and circumstances of developing countries.
12. The evaluation of the risk of the alternative should include any information on whether the proposed alternative has been thoroughly tested or evaluated in order to avoid inadvertently increasing risks to human health and the environment. The evaluation should include any information on potential risks associated with untested alternatives and any increased risk over the life-cycle of the alternative, including manufacture, distribution, use, maintenance and disposal.
13. If the alternative has not been tried or tested, information on projected impacts may also be useful.
14. Information or comments on improving the availability and accessibility of alternatives may also be useful.

C. Positive and/or negative impacts on society of implementing possible control measures (provide summary information and relevant references):	
(i) Health, including public, environmental and occupational health	Banning on medical use of lindane is still in question because the current substitutes for the treatment of head lice and scabies appeared not be effective as lindane.
(ii) Agriculture, including aquaculture and forestry\	-
(iii) Biota (biodiversity)	-
(iv) Economic aspects	-
(v) Movement towards sustainable development	-

(vi) Social costs	-
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Explanatory notes:

15. Socio-economic considerations could include:
- Any information on the impact (if any), costs and benefits to the local, national and regional economy, including the manufacturing sector and industrial and other users (e.g., capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry;
 - Any information on the impact (if any) on the wider society, associated with the transition to alternatives, including the negative and positive impacts on public, environmental, and occupational health. Consideration should also be given to the positive and negative impacts on the natural environment and biodiversity.
 - Information should be provided on how control measures fit within national sustainable development strategies and plans.

D. Waste and disposal implications (in particular, obsolete stocks of pesticides and clean-up of contaminated sites) (provide summary information and relevant references):	
(i) Technical feasibility	-
(ii) Costs	-

Explanatory note:

16. Specify if the information provided is connected to the specific needs and circumstances of developing countries.

E. Access to information and public education (provide summary information and relevant references):	

Explanatory note:

17. Please provide details here of access to information and public education with respect to both control measures and alternatives.

F. Status of control and monitoring capacity (provide summary information and relevant references):	

Explanatory note:

18. With regard to control capacity, the information required is on legislative and institutional frameworks for the chemical under consideration and their enforcement. With regard to monitoring capacity, the information required is on the technical and institutional infrastructure for the environmental monitoring and biomonitoring of the chemical under consideration, not monitoring capacity for alternatives.

G. Any national or regional control actions already taken, including information on alternatives, and other relevant risk management information:

Currently, use of lindane-containing products are restricted. Lindane and lindane-containing products are regulated by the Hazardous Substances Control Act B.E. 2535 (1992) which is the country's major act to manage chemicals. According to the Act, registration and permission to any activities, including production, import, export or possession, are required. Only the use in household and public health programs are permitted under the supervision of the Hazardous Substances Control Group, Food and Drug Administration. For medical purpose, lindane is in the National List of Essential Medicines 2004. It is the second-line drug of choice for head lice or scabies treatment.

Explanatory notes:

19. Actions or measures taken could include prohibitions, phase-outs, restrictions, cleanup of contaminated sites, waste disposal, economic incentives, and other non-legally binding initiatives.
20. Information could include details on whether these control actions have been cost-effective in providing the desired benefits and have had a measurable impact on reducing levels in the environment and contributed to risk reduction.

H. Other relevant information for the risk management evaluation:

Explanatory notes:

21. The above list of items is only indicative. Any other relevant information for the risk management evaluation should also be provided.

I. Other information requested by the POPRC:

[Note to the Secretariat]

- Whether production of lindane takes places (and quantities if possible)
 - There is no production of lindane in Thailand but bulk lindane-containing products are imported to be formulated and repacked in the country.
- Whether processes are used whereby the formation of unwanted isomers are reduced (and if possible to what extent)
 - no data
- Whether alpha- and beta-HCH are used as raw materials in the production of other chemicals
 - no data
- The amounts of alpha- and beta- HCH generated as waster during the production of lindane
 - no data
- Release to the environemnt of alpha- and beta- HCH from stockpiles, obsolete stocks and production wastes
 - no data

Annex F Questionnaire (one per chemical)

Attachment

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Explanatory note:

1. This chemical is undergoing a risk management evaluation. It has already satisfied the screening criteria set out in paragraph 4 (a) of Article 8 of the Convention. A risk profile has also been completed for this chemical in accordance with paragraph 6 of Article 8 and with Annex E to the Convention.

Introductory information	
Name of the submitting Party/observer	Department of Agriculture
Contact details (name, telephone, e-mail) of the submitting Party/observer	Department of Agriculture Tel: 02 5796151-8 e-mail: doa@doa.go.th
Date of submission	12 January 2007

Additional Annex E information	
(i) Production data, including quantity and location	Not production in Thailand
(ii) Uses	Prohibited
(iii) Releases, such as discharges, losses and emissions	No

Explanatory note:

2. This information was requested for preparation of the risk profile in accordance with Annex E of the Convention. The POPRC would like to collect more information on these items. If you have additional or updated information, kindly provide it.

A. Efficacy and efficiency of possible control measures in meeting risk reduction goals (provide summary information and relevant references):

(i) Describe possible control measures	Prohibit the uses (DOA, December 2001)
(ii) Technical feasibility	
(iii) Costs, including environmental and health costs	

Explanatory notes:

3. If relevant, provide information on uses for which there may be no suitable alternative or for which the analysis of socio-economic factors justify the inclusion of an exemption when considering listing decisions under the Convention. Detail the negative impacts on society that could result if no exemption were permitted.
4. "Risk reduction goals" could refer to targets or goals to reduce or eliminate releases from intentional production and use, unintentional production, stockpiles, wastes, and to reduce or avoid risks associated with long-range environment transport.
5. Provide the costs and benefits of implementing the control measure, including environmental and health costs and benefits.
6. Where relevant and possible "costs" should be expressed in US dollars per year.

B. Alternatives (products and processes) (provide summary information and relevant references):	
(i) Describe alternatives	
(ii) Technical feasibility	
(iii) Costs, including environmental and health costs	
(iv) Efficacy	
(v) Risk	
(vi) Availability	
(vii) Accessibility	

Explanatory notes:

7. Provide a brief description of the alternative product or process and, if appropriate, the sector(s), use(s) or user(s) for which it would be relevant.
8. If several alternatives could be envisaged for the chemical under consideration, including non-chemical alternatives, provide information under this section for each alternative.

9. Specify for each proposed alternative whether it has actually been implemented (and give details), whether it has only reached the trial stage (again, with details) or whether it is just a proposal.
10. The evaluation of the efficacy should include any information on the performance, benefits, costs, and limitations of potential alternatives.
11. Specify if the information provided is connected to the specific needs and circumstances of developing countries.
12. The evaluation of the risk of the alternative should include any information on whether the proposed alternative has been thoroughly tested or evaluated in order to avoid inadvertently increasing risks to human health and the environment. The evaluation should include any information on potential risks associated with untested alternatives and any increased risk over the life-cycle of the alternative, including manufacture, distribution, use, maintenance and disposal.
13. If the alternative has not been tried or tested, information on projected impacts may also be useful.
14. Information or comments on improving the availability and accessibility of alternatives may also be useful.

C. Positive and/or negative impacts on society of implementing possible control measures (provide summary information and relevant references):	
(i) Health, including public, environmental and occupational health	Reduce possible health and environmental risk
(ii) Agriculture, including aquaculture and forestry	Reduce possible residues in agricultural commodities
(iii) Biota (biodiversity)	
(iv) Economic aspects	
(v) Movement towards sustainable development	
(vi) Social costs	

Explanatory notes:

15. Socio-economic considerations could include:
 - Any information on the impact (if any), costs and benefits to the local, national and regional economy, including the manufacturing sector and industrial and other users (e.g., capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry;
 - Any information on the impact (if any) on the wider society, associated with the transition to alternatives, including the negative and positive impacts on public, environmental, and

occupational health. Consideration should also be given to the positive and negative impacts on the natural environment and biodiversity.

- Information should be provided on how control measures fit within national sustainable development strategies and plans.

D. Waste and disposal implications (in particular, obsolete stocks of pesticides and clean-up of contaminated sites) (provide summary information and relevant references):	
(i) Technical feasibility	
(ii) Costs	

Explanatory note:

16. Specify if the information provided is connected to the specific needs and circumstances of developing countries.

E. Access to information and public education (provide summary information and relevant references):

Explanatory note:

17. Please provide details here of access to information and public education with respect to both control measures and alternatives.

F. Status of control and monitoring capacity (provide summary information and relevant references):

Explanatory note:

18. With regard to control capacity, the information required is on legislative and institutional frameworks for the chemical under consideration and their enforcement. With regard to monitoring capacity, the information required is on the technical and institutional infrastructure for the environmental monitoring and biomonitoring of the chemical under consideration, not monitoring capacity for alternatives.

G. Any national or regional control actions already taken, including information on alternatives, and other relevant risk management information:
Prohibit the uses

Explanatory notes:

19. Actions or measures taken could include prohibitions, phase-outs, restrictions, cleanup of contaminated sites, waste disposal, economic incentives, and other non-legally binding initiatives.
20. Information could include details on whether these control actions have been cost-effective in providing the desired benefits and have had a measurable impact on reducing levels in the environment and contributed to risk reduction.

H. Other relevant information for the risk management evaluation:**Explanatory notes:**

21. The above list of items is only indicative. Any other relevant information for the risk management evaluation should also be provided.

I. Other information requested by the POPRC:

[Note to the Secretariat]