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Environment Programme**



**Food and Agriculture Organization  
of the United Nations**

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**Rotterdam Convention on the Prior Informed  
Consent Procedure for Certain Hazardous  
Chemicals and Pesticides in International Trade  
Chemical Review Committee**

First meeting

Geneva, 11–18 February 2005

Item 7 (i) of the provisional agenda

**Inclusion of chemicals in Annex III of the Rotterdam Convention:  
review of notifications of final regulatory actions to ban  
or severely restrict a chemical: 4-aminobiphenyl**

## **4-aminobiphenyl**

### **Note by the secretariat**

1. In line with article 5 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, when the secretariat has received at least one notification from each of two prior informed consent (PIC) regions that contain the information required in Annex I to the Convention, it shall forward the notifications and accompanying documentation to the members of the Chemical Review Committee. The Committee shall review the information provided in such notifications and, in accordance with the criteria set out in Annex II, recommend to the Conference of the Parties whether the chemical in question should be included in Annex III and a decision guidance document drafted.
2. The secretariat has received two notifications from two PIC regions relating to 4-aminobiphenyl (Europe – Latvia; and Asia – Republic of Korea). Summaries of these notifications are included in PIC Circular XX, for December 2004. The notifications as they were received from the notifying countries are annexed to the present note.
3. The supporting documentation provided by Latvia and the Republic of Korea, where available, will be found in documents UNEP/FAO/RC/CRC.1/22.Add.1 and Add.2, respectively.

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**Annex**



**FORM  
FOR NOTIFICATION OF FINAL REGULATORY ACTION  
TO BAN OR SEVERELY RESTRICT A CHEMICAL**

IMPORTANT: See instructions before filling in the form

COUNTRY: LATVIA

**PART I: PROPERTIES, IDENTIFICATION AND USES**

<b>1. IDENTITY OF CHEMICAL</b>	
1.1	Common name 4-Aminobiphenyl
1.2	Chemical name according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists (1,1'-Biphenyl)-4-amine
1.3	Trade names and names of preparations 4-Aminobiphenyl
1.4	Code numbers
1.4.1	CAS number 92-67-1
1.4.2	Harmonized System customs code 2921 49 90
1.4.3	Other numbers (specify the numbering system) EINECS 202-177-1 UN 2811
<b>1.5 Indication regarding previous notification on this chemical, if any</b>	
1.5.1	<input checked="" type="checkbox"/> This is a first time notification of final regulatory action on this chemical.
1.5.2	<input type="checkbox"/> This is a modification of a previous notification of final regulatory action on this chemical. The sections modified are: _____
	<input type="checkbox"/> This notification replaces all previously submitted notifications on this chemical.
Date of issue of the previous notification: _____	

**PLEASE RETURN THE COMPLETED FORM TO:**

Interim Secretariat for the Rotterdam Convention  
Plant Protection Service  
Plant Production and Protection Division, FAO  
Viale delle Terme di Caracalla  
00100 Rome, Italy

OR

Interim Secretariat for the Rotterdam Convention  
UNEP Chemicals

11-13, Chemin des Anémones  
CH - 1219 Châtelaine, Geneva, Switzerland

Tel: (+39 06) 5705 3441  
Fax: (+39 06) 5705 6347  
E-mail: pic@fao.org

Tel: (+41 22) 917 8183  
Fax: (+41 22) 797 3460  
E-mail: pic@unep.ch

1.6 Information on hazard classification where the chemical is subject to classification requirements	
International classification systems	Hazard class
UN Classification	UN Hazard Class: 6.1
	UN Pack Group: II
Other classification systems	Hazard class
EU Classification	T
	R: 45-22
	S: 53-45
	Note: E

1.7 Use or uses of the chemical	
1.7.1	<p>⊖ Pesticide</p> <p>Describe the uses of the chemical as a pesticide in your country:</p>
1.7.2	<p>X Industrial</p> <p>Describe the industrial uses of the chemical in your country:</p>

1.8 Properties	
1.8.1	<p>Description of physico-chemical properties of the chemical</p> <p>Boiling point            302°C</p> <p>Melting point            53-54°C</p> <p>Vapour pressure        0.000008 kPa</p> <p>Solubility in water      223.9 mg/l</p>

1.8.2	<p>Description of toxicological properties of the chemical</p> <p>LD<sub>50</sub> Oral rat: 500 mg/kg body weight</p> <p><b>EFFECTS OF SHORT-TERM EXPOSURE:</b> The substance irritates the eyes. The substance may cause effects on the bladder, resulting in blood in urine.</p> <p><b>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:</b> This substance is carcinogenic to humans.</p>
1.8.3	<p>Description of ecotoxicological properties of the chemical</p> <p>Bioaccumulation: BCF: 31.62 Log Pow: 2.86</p>

**PART II: FINAL REGULATORY ACTION**

<b>2. FINAL REGULATORY ACTION</b>	
<b>2.1</b>	The chemical is: <input type="radio"/> banned                      OR <input checked="" type="radio"/> severely restricted
<b>2.2</b>	<b>Information specific to the final regulatory action</b>
<b>2.2.1</b>	<b>Summary of the final regulatory action</b> Such substances and preparations may shall not be sold to the general public. Without prejudice to the application of other EU provisions on the classification, packaging and labelling of dangerous substances and preparations, the packaging of such preparations shall be legible and indelibly marked as follows: "Restricted to professional users".
<b>2.2.2</b>	<b>Reference to the regulatory document</b> 25 April 2000 Regulation of the Cabinet of Ministers the Republic of Latvia No.158 "Regulatory on use and marketing restrictions and bans for hazardous chemical substances and hazardous chemical preparations".
<b>2.2.3</b>	<b>Date of entry into force of the final regulatory action</b> 1 January 2001

<b>2.3</b>	<b>Was the final regulatory action based on a risk or hazard evaluation?</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No
	<b>If yes, give information on such evaluation</b> Based on intrinsic properties of the chemical substance.	
	<b>Reference to the relevant documentation</b> EU bans and restrictions Directive 76/769/EEC.	

<b>2.4</b>	<b>Reasons for the final regulatory action</b>	
<b>2.4.1</b>	<b>Is the reason for the final regulatory action relevant to the human health?</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No
	<b>If yes, give summary of the known hazards and risks presented by the chemical to human health, including the health of consumers and workers</b> The compound is similar to benzidine regarding the health effects. This compound affects the blood and may damage the liver and kidneys. The compound has been shown to be carcinogenic. This compound is taken up through the skin. In addition to burning delayed symptoms can occur, such as nausea, dizziness, headache, breathlessness, cyanosis, cramps, drowsiness and even effects on the heart and loss of consciousness depending on degree of exposure. Textiles and leather products containing azo dyes can release aryl amines that may cause cancer.	
	<b>Reference to the relevant documentation</b>	
	<b>Expected effect of the final regulatory action</b>	

2.4.2	Is the reason for the final regulatory action relevant to the environment?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
	If yes, give summary of the known hazards and risks to the environment		
	Reference to the relevant documentation		
Expected effect of the final regulatory action			

2.5 Category or categories where the final regulatory action has been taken		
2.5.1	Final regulatory action has been taken for the chemical category	<input checked="" type="checkbox"/> Industrial
	Use or uses prohibited by the final regulatory action	
	Such substances and preparations may shall not be sold to the general public. Without prejudice to the application of other EU provisions on the classification, packaging and labelling of dangerous substances and preparations, the packaging of such preparations shall be legible and indelibly marked as follows: "Restricted to professional users".	
Use or uses that remain allowed		
All other uses not listed in the table above.		

2.5.2	Final regulatory action has been taken for the chemical category	<input type="checkbox"/> Pesticide
	Formulation(s) and use or uses prohibited by the final regulatory action	
	Formulation(s) and use or uses that remain allowed	

2.5.3 Estimated quantity of the chemical produced, imported, exported and used, where available.		
	Quantity per year (MT)	Year
Produced		
Imported		
Exported		
Used		

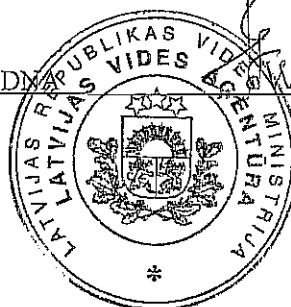
2.6	Indication, to the extent possible, of the likely relevance of the final regulatory action to other states and regions
	Decision taken in accordance with EU bans and restrictions Directive 76/769/EEC.

<b>2.7 Other relevant information that may cover:</b>	
<b>2.7.1</b>	<b>Assessment of socio-economic effects of the final regulatory action</b>
<b>2.7.2</b>	<b>Information on alternatives and their relative risks</b>
<b>2.7.3</b>	<b>Relevant additional information</b>

**PART III : GOVERNMENT AUTHORITIES**

Ministry/Department and authority responsible for issuing/enforcing the final regulatory action	
<b>Institution</b>	Environmental State Inspectorate
<b>Address</b>	Rupniecibas iela 23 Riga LV-1045 Latvia
<b>Telephone</b>	+371 7325209; +371 7321200; +371 7320506
<b>Telefax</b>	+371 7321577
<b>E-mail address</b>	vvi@vvi.gov.lv
Designated National Authority	
<b>Institution</b>	Latvian Environment Agency
<b>Address</b>	Straumes iela 2 Jurmala LV-2015 Latvia
<b>Name of person in charge</b>	Arnis Ludborzcs
<b>Position of person in charge</b>	Head, Division of Chemicals Register
<b>Telephone</b>	+371 7755409
<b>Telefax</b>	+371 7764162
<b>E-mail address</b>	Arnis.Ludborzcs@lva.gov.lv

Date, signature of DNA and official seal: Director DNA



Ilze Kirstuka



**FORM  
FOR NOTIFICATION OF FINAL REGULATORY ACTION  
TO BAN OR SEVERELY RESTRICT A CHEMICAL**

IMPORTANT: See instructions before filling in the form

COUNTRY: REPUBLIC OF KOREA

**PART I: PROPERTIES, IDENTIFICATION AND USES**

<b>1. IDENTITY OF CHEMICAL</b>		
1.1	Common name	4-Aminobiphenyl
1.2	Chemical name according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists	(1,1'-Biphenyl)-4-amine (IUPAC) p-Biphenylamine
1.3	Trade names and names of preparations	No information is available
1.4	Code numbers	
1.4.1	CAS number	92-67-1
1.4.2	Harmonized System customs code	2921-49
1.4.3	Other numbers (specify the numbering system)	99-4-54 (designation number of the banned chemical in the Ministry of Environment's Public Notice No. 2003-163 (16 Sept. 2003) in Korea)

<b>1.5 Indication regarding previous notification on this chemical, if any</b>	
1.5.1	This is a first time notification of final regulatory action on this chemical.
1.5.2	This is a modification of a previous notification of final regulatory action on this chemical. The sections modified are: _____
	<input checked="" type="checkbox"/> This notification replaces all previously submitted notifications on this chemical.
	Date of issue of the previous notification: 25 February 1992

**PLEASE RETURN THE COMPLETED FORM TO:**

Secretariat for the Rotterdam Convention  
Plant Protection Service  
Plant Production and Protection Division, FAO  
Viale delle Terme di Caracalla  
00100 Rome, Italy

OR

Secretariat for the Rotterdam Convention  
UNEP Chemicals  
11-13, Chemin des Anémones  
CH - 1219 Châtelaine, Geneva, Switzerland

Tel: (+39 06) 5705 3441  
Fax: (+39 06) 5705 6347  
E-mail: pic@fao.org

Tel: (+41 22) 917 8183  
Fax: (+41 22) 797 3460  
E-mail: pic@unep.ch



1.6 Information on hazard classification where the chemical is subject to classification requirements	
International classification systems	Hazard class
IARC	Group 1
Other classification systems	Hazard class
ACGIH(American Conference of Governmental Industrial Hygienists)	Group A1(confirmed human carcinogen)
US NTP(National Toxicology Program)	Group A
•TCCA(Toxic Chemicals Control Act of Korea)	•Harmful if swallowed
	•May cause cancer

1.7 Use or uses of the chemical	
1.7.1	<p><b>Pesticide</b></p> <p>Describe the uses of the chemical as a pesticide in your country:</p> <p>No information is available</p>
1.7.2	<p><input checked="" type="checkbox"/> <b>Industrial</b></p> <p>Describe the industrial uses of the chemical in your country:</p> <p>4-Aminobiphenyl was used as an intermediate in the production of dye stuff</p>

1.8 Properties	
1.8.1	<p><b>Description of physico-chemical properties of the chemical</b></p> <p>Form: colorless crystal                      M.p.: 53°C                      Slightly soluble in cold water, soluble in hot water and organic solvent</p>

1.8.2	<p><b>Description of toxicological properties of the chemical</b></p> <p>Acute oral: LD<sub>50</sub> for rat 500, rbt 690 mg/kg                      LD<sub>50</sub> for mouse 500 205mg/kg                      Mutagenicity: Ames test: positive                      In vitro UDS in rat liver: positive                      Mammalian micronucleous test: Inconclusive</p> <p>Ref. Hazardtext, HSDB, RTECS</p>
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1.8.3	<b>Description of ecotoxicological properties of the chemical</b> No information is available
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**PART II: FINAL REGULATORY ACTION**

<b>2. FINAL REGULATORY ACTION</b>	
2.1	<b>The chemical is:</b> <input checked="" type="checkbox"/> <b>banned</b> OR <b>severely restricted</b>
2.2	<b>Information specific to the final regulatory action</b>
2.2.1	<b>Summary of the final regulatory action</b> 4-aminobiphenyl, its hydrochloride, and mixtures containing 0.1% or more of any of these chemicals are banned for manufacture, import and use as an industrial chemical. No remaining uses are allowed.
2.2.2	<b>Reference to the regulatory document</b> Ministry of Environment's Public Notice No. 2003-163 (Amended on 16 Sept. 2003)
2.2.3	<b>Date of entry into force of the final regulatory action</b> 4-Aminobiphenyl were banned for manufacture, use and import by MOE's Public Notice No 1991-44(9 Aug 1991). The notice was amended several times and Its hydrochloride wers also involved in banned chemicals on 1 Jun 1996. The final amended notice took into force on 13 Nov. 2003.

2.3	<b>Was the final regulatory action based on a risk or hazard evaluation?</b> <input checked="" type="checkbox"/> <b>Yes</b> <b>No</b>
	<b>If yes, give information on such evaluation</b> <ul style="list-style-type: none"><li>● From the chemicals designated as toxic according to the TCCA or from those existing chemicals found to have toxic effect on humans or the environment through various international assessments, the National Institute of Environmental Research(NIER) conducts hazard evaluation in accordance with the provisions on hazard evaluation of chemicals – NIER's Public Notice No. 1999-39(14 June 1999) - and submits recommendation to the Ministry of Environment. Upon receiving the recommendation from the NIER, The Ministry of Environment takes consultation with relevant ministries and decides whether to ban or severely restrict the chemical for industrial uses. The final decision is published in Public Notice. Especially NIER concentrated on its assessment whether 4-aminobiphenyl might cause damage to or adverse effects on human organs through exposure when assessed for carcinogenicity and genetic toxicity according to Article 10 of NIER's Public Notice</li><li>● As for 4-aminobiphenyl, its hydrochloride, and mixtures containing 0.1% or more of any of these chemicals, they are banned due to risk of carcinogenic effect on humans</li></ul>
	<b>Reference to the relevant documentation</b> The NIER's Public Notice No. 1999-39(14 June 1999)

2.4	<b>Reasons for the final regulatory action</b>
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<b>2.4.1</b>	<b>Is the reason for the final regulatory action relevant to the human health?</b>	<input checked="" type="checkbox"/> Yes No
	<b>If yes, give summary of the known hazards and risks presented by the chemical to human health, including the health of consumers and workers</b>	
	4-aminobiphenyl is a carcinogen to humans(IARC group 1). It can cause dyspnea and CNS depression. In experimental animals, it has produced bladder and liver tumors. 4-Aminodiphenyl appears to be one of the most potent of the known bladder carcinogens.	
	<b>Reference to the relevant documentation</b>	
	-ACGIH. Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents and Biological Exposure Indices (BEIs) for 1995-1996. Cincinnati, OH: ACGIH, (1995) -IARC. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. WHO, International Agency for Research on Cancer, 1972-PRESENT. (Multivolume work).,p. S7 57 (1987) - DHHS/NTP; Seventh Annual Report on Carcinogens (1994)	
	<b>Expected effect of the final regulatory action</b>	
	It is expected that the regulatory action will significantly reduce the potential risk of carcinogenic effect to workers and others involved in dye manufacturing industry.	

<b>2.4.2</b>	<b>Is the reason for the final regulatory action relevant to the environment?</b>	Yes <input checked="" type="checkbox"/> No
	<b>If yes, give summary of the known hazards and risks to the environment</b>	
	No information is available	
	<b>Reference to the relevant documentation</b>	
	No information is available	
	<b>Expected effect of the final regulatory action</b>	
	No information is available	

<b>2.5 Category or categories where the final regulatory action has been taken</b>		
<b>2.5.1</b>	<b>Final regulatory action has been taken for the chemical category</b>	<input checked="" type="checkbox"/> Industrial
	<b>Use or uses prohibited by the final regulatory action</b>	
	4-aminobiphenyl, its hydrochloride, and mixtures containing 0.1% or more of any of these chemicals are banned for manufacture, import and use as an industrial chemical. No remaining uses are allowed, except for the use mentioned in the subsection below.	
	<b>Use or uses that remain allowed</b>	
	Use of the chemical for research or laboratory purposes is allowed.	
<b>2.5.2</b>	<b>Final regulatory action has been taken for the chemical category</b>	Pesticide
	<b>Formulation(s) and use or uses prohibited by the final regulatory action</b>	

	No information is available
	<b>Formulation(s) and use or uses that remain allowed</b>
	No information is available

2.5.3 Estimated quantity of the chemical produced, imported, exported and used, where available.		
	Quantity per year (MT)	Year
Produced		
Imported		
Exported		
Used		

<b>2.6</b>	<b>Indication, to the extent possible, of the likely relevance of the final regulatory action to other states and regions</b>

<b>2.7</b>	<b>Other relevant information that may cover:</b>
<b>2.7.1</b>	<b>Assessment of socio-economic effects of the final regulatory action</b>
	No information is available

<b>2.7.2</b>	<b>Information on alternatives and their relative risks</b>
	No information is available
<b>2.7.3</b>	<b>Relevant additional information</b>
	No information is available

**PART III : GOVERNMENT AUTHORITIES**

Ministry/Department and authority responsible for issuing/enforcing the final regulatory action	
Institution	Chemicals Safety Div., Ministry of Environment
Address	Government Gwacheon Complex 1, Joongang-dong, Gwacheon, Gyeonggi-do, Republic of Korea 427-729

Telephone	82-2-2110-7951
Telefax	82-2-507-2457
E-mail address	<a href="mailto:chemical@me.go.kr">chemical@me.go.kr</a>
<b>Designated National Authority</b>	
Institution	Chemicals Safety Div., Ministry of Environment
Address	Government Gwacheon Complex 1, Joongang-dong, Gwachon, Gyeonggi-do, Republic of Korea 427-729
Name of person in charge	Yeon Soo, PARK
Position of person in charge	Director
Telephone	82-2-2110-7951
Telefax	82-2-507-2457
E-mail address	<a href="mailto:chemical@me.go.kr">chemical@me.go.kr</a>

Date, signature of DNA and official seal: 30/04/04 Yeon Soo, PARK

