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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**

Third meeting

Rome, 20–23 March 2007

Item 5 (b) (iv) of the provisional agenda*

**Listing of chemicals in Annex III of the Rotterdam Convention:
review of notifications of final regulatory actions to ban
or severely restrict a chemical: methamidophos**

Methamidophos

Note by the Secretariat

1. Under article 5 of the Rotterdam Convention, when the Secretariat has received at least one notification from each of two prior informed consent (PIC) regions containing 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 documentation provided in such notifications and, in accordance with the criteria set out in Annex II to the Convention, recommend to the Conference of the Parties whether the chemical in question should be included in Annex III to the Convention and whether a decision guidance document should be drafted.
2. The Secretariat has received two notifications from two PIC regions relating to methamidophos that meet the information requirements of Annex I to the Convention (Europe (Bulgaria) and Africa (Nigeria)). Summaries of those notifications were published in PIC Circular XXII of December 2005 and PIC Circular XXI of June 2005. The notifications, as received from the notifying countries, are set out in the annex to the present note.
3. The supporting documentation provided by Bulgaria and Nigeria may be found in documents UNEP/FAO/RC/CRC.3/11/Add.1 and UNEP/FAO/RC/CRC.3/11/Add.2, respectively.

* UNEP/FAO/RC/CRC.3/1.

Annex

- **Notification of final regulatory action for methamidophos by Bulgaria**
- **Notification of final regulatory action for methamidophos by Nigeria**



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

IMPORTANT: See instructions before filling in the form

COUNTRY: BULGARIA

PART I: PROPERTIES, IDENTIFICATION AND USES

1. IDENTITY OF CHEMICAL		
1.1	Common name	Methamidophos
1.2	Chemical name according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists	Methamidophos (ISO) O,S-dimethyl phosphoramidothioate
1.3	Trade names and names of preparations	Tamaron 600 SL
1.4	Code numbers	
1.4.1	CAS number	10265-92-6
1.4.2	Harmonized System customs code	3808 10 40
1.4.3	Other numbers (specify the numbering system)	233-606-0 (EC No) 015-095-00-4 (Index No)

1.5 Indication regarding previous notification on this chemical, if any	
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:

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
WHO	Technical product and soluble liquid formulations of the substance that exceed 600 g active ingredient/L: Ib (Highly hazardous)
IARC	Not classified
Other classification systems	Hazard class
EU	T+; R26/28 (Very toxic by inhalation and if swallowed.) T; R24 (Toxic in contact with skin.) N; R50 (Very toxic to aquatic organisms.)
EPA	Category 1 (Highly toxic)
UN	Hazard Class 6.1: poisonous substance Packing Group 2: substances and preparations presenting a serious risk of poisoning (formulations containing 15-100 % active material) Packing Group 3: harmful substances and preparations presenting a relatively low risk of poisoning (solid formulations containing 3-15% active material and liquid formulations containing 1.5-15 % active material)

1.7 Use or uses of the chemical	
1.7.1	X Pesticide
	Describe the uses of the chemical as a pesticide in your country:
	Insecticide
1.7.2	∅ Industrial
	Describe the industrial uses of the chemical in your country:

1.8 Properties	
1.8.1	Description of physico-chemical properties of the chemical
	Pure methamidophos is a colourless crystalline solid. Technical methamidophos, which is about 73% pure, is in the form of yellowish to colourless crystals. The substance decomposes on heating and on burning producing toxic and irritating fumes including nitrogen oxides, sulfur oxides, and phosphorous oxides. Attacks mild steel and copper-containing alloys (technical grade). Relative molecular mass 141.1 Melting point (°C) 44.5 (pure); 37-39 (technical) Boiling point (°C) thermally unstable Vapour pressure (30 °C) 40 mPa Solubility in water (kg/l) 2 Density (20 °C) 1.31 Half-life in aqueous solution at pH 2.0 (40 °C) 140h at pH 9 (37 °C) 120 h Relative density (water=1): 1.3 Vapour pressure, Pa at 20°C: 0.002 Octanol/water partition coefficient as log Pow: -0.66
1.8.2	Description of toxicological properties of the chemical
	Methamidophos is highly toxic via oral, dermal and inhalation routes of exposure. The oral doses of methamidophos that resulted in the mortality of half of the test organisms (LD50 values) are 21 and 16 mg/kg body weight for male and female rats respectively, 30-50 mg/kg body weight in guinea pigs and 10-30 mg/kg body weight in rabbits. Dermal LD50 values include 50 mg/kg body weight in rats and

	<p>118 mg/kg body weight in rabbits. Inhalation LD50 values include 9 mg/kg in rats, and 19 mg/kg in mice.</p> <p>Early symptoms of acute organo-phosphate poisoning are dependent on route of exposure, and usually develop during or shortly after exposure (within 12 hours). If inhaled, tightness in the chest, wheezing, headache, blurred vision, pinpoint pupils, tearing and runny nose are common early symptoms. If ingested, nausea, vomiting, diarrhea, and cramps are the most common early signs of poisoning. Sweating and twitching in the area of absorption are seen with skin exposure. Weakness, shakiness, blurred vision, tightness in the chest, sweating, confusion, changes in heart rate, convulsions, coma, and cessation of breathing may occur with significant inhalation, ingestion or dermal exposure. An intermediate syndrome has been described in cases of poisonings in Sri Lanka, where patients experienced paralysis of limb, neck, and respiratory muscles 24-96 hours after exposure. Delayed neurological problems (delayed peripheral neuropathy) have been described 2-4 weeks after large exposures to organophosphates, and include a loss of feeling and pins and needles type of pains in the feet, legs, and hands. Atropine is an antidote for organophosphate poisoning.</p> <p>People with high blood pressure, gastrointestinal disorders, heart, liver, lung, or nervous system problems may be more sensitive to methamidophos.</p>
1.8.3	<p>Description of ecotoxicological properties of the chemical</p> <p>As it is readily degraded, methamidophos is non-persistent in the environment. Under normal conditions of usage, it will not accumulate. However, it is toxic for aquatic invertebrates, birds, bees, fish, and wild mammals.</p>

PART II: FINAL REGULATORY ACTION

2. FINAL REGULATORY ACTION	
2.1	The chemical is: <input checked="" type="checkbox"/> banned
2.2	Information specific to the final regulatory action
2.2.1	<p>Summary of the final regulatory action</p> <p>It has prohibited to production, use and place on the market all plant protection products containing Methamidophos according to annual adopted list of active ingredients banned for use in plant protection products under the Plant Protection Act since 2003. Methamidophos is designated as a PIC chemical. (Annex I of the Regulation on the import and export of certain dangerous chemicals on the Bulgarian territory). The import and use of the chemical for research or laboratory purposes in quantities less than 10 kg are allowed.</p>
2.2.2	<p>Reference to the regulatory document</p> <ul style="list-style-type: none"> - Law on protection of plants against pests and blights (SG 11 of 5.02.1960, amended SG 26 of 2.04.1968), repealed by Plant Protection Act (SG 91 of 10.10.1997, amended SG 90 of 15.10.1999, amended SG 96 of 09.11.2001, amended SG 18 of 15.03.2004); - Joint Order № № № RD 09-130/13.03.2003 of Minister of Agriculture and Forestry; RD 09-98/25.02.2003 of Minister of Health; RD-228/07.03.2003 of Minister of Environment and Water for approval of annual list of active ingredients banned for use in plant protection products according to Article 15g of Plant Protection Act; - Regulation on the import and export of certain dangerous chemical substances, preparations and products on the Bulgarian territory (SG 66 of 9 July 2002), repealed by Regulation on the import and export of certain dangerous chemicals on the Bulgarian territory (SG 63 of 20 July 2004, in force since 1st January 2005).
2.2.3	<p>Date of entry into force of the final regulatory action</p> <p>01.04.2003</p>
2.3	<p>Was the final regulatory action based on a risk or hazard evaluation? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>If yes, give information on such evaluation</p> <p>Reference to the relevant documentation</p>
2.4	Reasons for the final regulatory action
2.4.1	<p>Is the reason for the final regulatory action relevant to the human health? <input checked="" type="radio"/> Yes <input type="radio"/> No</p>

	If yes, give summary of the known hazards and risks presented by the chemical to human health, including the health of consumers and workers	
	In a controlled study in which a combined dose of methamidophos and acephate was administered to groups of male and female volunteers, cholinesterase depression was observed predominantly in those receiving a higher methamidophos: acephate ratio (1:4 rather than 1:9). A higher total concentration (0.2 mg/kg), administered at the lower ratio (1:9), did not result in any depression of enzyme activity. Excessive human exposure to methamidophos caused delayed polyneuropathy.	
	Reference to the relevant documentation	
	HSG 79, 1993	
	Expected effect of the final regulatory action	
	To avoid exposure of the chemicals and the associated risks to human health.	

2.4.2	Is the reason for the final regulatory action relevant to the environment?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, give summary of the known hazards and risks to the environment	
	In mildly acidic or neutral aqueous solutions, methamidophos is stable at temperatures up to 80 °C. Methamidophos is degraded in outdoor natural water systems with half-lives of 15.9 days in water and 7.5 days in silt. Although methamidophos was leached from soils, it also degraded rapidly in natural water systems. It is degraded relatively rapidly in soils. Within 1 week, the residue dropped to 10% of the level measured on the day of application. Furthermore, there was no accumulation of the insecticide, even after several applications. Methamidophos is moderately toxic for fish as evidenced by 96-h LC ₅₀ s of 25 mg/litre for rainbow trout (<i>Oncorhynchus mykiss</i>), and approximately 100 mg/litre for goldfish (<i>Carassius auratus</i>) and carp (<i>Cyprinus carpio</i>). The LD ₅₀ s for the mallard duck (<i>Anas platyrhynchos</i>), Japanese quail (<i>Coturnix coturnix Japonica</i>), and the hen (<i>Gallus domesticus</i>) are 29.5, 10, and 25 mg/kg, respectively. This insecticide can also be harmful to bees.	
	Reference to the relevant documentation	
	HSG 79, 1993	
	Expected effect of the final regulatory action	
	To avoid exposure of the chemical and the associated risks to environment.	

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 type="checkbox"/> Industrial
	Use or uses prohibited by the final regulatory action	
	Use or uses that remain allowed	
2.5.2	Final regulatory action has been taken for the chemical category	<input checked="" type="checkbox"/> Pesticide
	Formulation(s) and use or uses prohibited by the final regulatory action	
	All formulations and uses are prohibited.	
	Formulation(s) and use or uses that remain allowed	
	None	

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

2.6	Indication, to the extent possible, of the likely relevance of the final regulatory action to other states and regions
2.7	Other relevant information that may cover:

2.7.1	Assessment of socio-economic effects of the final regulatory action	
2.7.2	Information on alternatives and their relative risks	
2.7.3	Relevant additional information	

PART III: GOVERNMENT AUTHORITIES

Ministry/Department and authority responsible for issuing/enforcing the final regulatory action	
Institution	Ministry of Environment and Water
Address	Bulgaria 1000, Sofia 67, William Gladstone Str.
Telephone	+ 359 2 940 60 21
Telefax	+ 359 2 981 33 84
E-mail address	pluleva@moew.government.bg
Designated National Authority (CP)	
Institution	Ministry of Environment and Water
Address	Bulgaria 1000, Sofia 67, William Gladstone Str.
Name of person in charge	Mrs. Parvoleta Luleva
Position of person in charge	Chief expert at "Operative Control and Management of Dangerous Chemicals" Department; Directorate "Coordination of Regional Inspectorates of Environment and Water"
Telephone	+ 359 2 940 60 21
Telefax	+ 359 2 981 33 84
E-mail address	pluleva@moew.government.bg
Ministry/Department and authority responsible for issuing/enforcing the final regulatory action	
Institution	Ministry of Agriculture and Forestry
Address	Bulgaria 1040, Sofia 55, Hristo Botev Blvd.
Designated National Authority (P)	
Institution	National Plant Protection Service, Ministry of Agriculture and Forestry
Address	Bulgaria 1606, Sofia 17, Hristo Botev Blvd.
Name of person in charge	Mr. Stefan Uzunov
Position of person in charge	Head of "International Cooperation" Sector National Plant Protection Service
Telephone	+359 2 953 33 60
Telefax	+359 2 95 333 60
E-mail address	s.uzunov@mbox.infotel.bg

Manoela Georgieva
Deputy Minister of
Environment and Water

Petar Nikolev
Director General of
National Plant Protection
Service

15 June 2005



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

IMPORTANT: See instructions before filling in the form

COUNTRY: NIGERIA

PART I: PROPERTIES, IDENTIFICATION AND USES

1. IDENTITY OF CHEMICAL	
1.1	Common name Methamidophos
1.2	Chemical name 10265-92-6 according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists O,S-dimethyl phosphoramidothioate (IUPAC; CAS)
1.3	Trade names and names of preparations Methamidophos 60 WSC
1.4	Code numbers
1.4.1	CAS number 10265-92-6
1.4.2	Harmonized System customs code
1.4.3	Other numbers (specify the numbering system)

1.5 Indication regarding previous notification on this chemical, if any	
1.5.1	<input 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 checked="" type="checkbox"/> This notification replaces all previously submitted notifications on this chemical.
	Date of issue of the previous notification: _____ 12-07-1998 _____

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

Tel: (+41 22) 917 8183
Fax: (+41 22) 797 3460

1.6 Information on hazard classification where the chemical is subject to classification requirements	
International classification systems	Hazard class
WHO	Technical product.: Ib (highly hazardous), classification based on oral toxicity
Other classification systems	Hazard class
EPA	Category 1 (highly toxic)
EU	T+ (very toxic)

1.7 Use or uses of the chemical	
1.7.1	<input checked="" type="checkbox"/> Pesticide
	Describe the uses of the chemical as a pesticide in your country:
	Not registered for use in the country.
1.7.2	<input type="checkbox"/> Industrial
	Describe the industrial uses of the chemical in your country:

1.8 Properties	
1.8.1	Description of physico-chemical properties of the chemical
	Solubility - In water > 200 g/l at 20°C, highly soluble in alcohols and ketones, sparingly soluble in ether and petroleum ether logP _{ow} -0.8 Vapour Pressure- 4.7 mPa (25°C) Reactivity - Decomposes on heating without boiling; stable at pH 3-8. The technical grade and concentrates are corrosive to steel and copper containing alloys. Incompatible with alkaline pesticides.

1.8.2	Description of toxicological properties of the chemical
	As in DGD
1.8.3	Description of ecotoxicological properties of the chemical
	As in DGD

PART II: FINAL REGULATORY ACTION

2. FINAL REGULATORY ACTION	
2.1	The chemical is: <input checked="" type="checkbox"/> banned OR <input type="checkbox"/> severely restricted
2.2	Information specific to the final regulatory action
2.2.1	Summary of the final regulatory action
	Methamidophos is under national regulatory control through the Decree 59 of 1988 as amended in 1992 for the control of all hazardous substances which might impact the Nigerian environment and public health.
2.2.2	Reference to the regulatory document
	-Federal Environmental Protection Act, CAPN, 131, LFN, 1990 as amended by Decree No. 59 of 1992; Management of Solid and Hazardous Wastes Regulation, S.I. 15 of 1991.

2.2.3	Date of entry into force of the final regulatory action 12-07-1998	
2.3	Was the final regulatory action based on a risk or hazard evaluation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, give information on such evaluation Decision based on both international and local information on hazard associated with use.	
	Reference to the relevant documentation UNEP Decision Guidance Documents (DGDs)	
2.4	Reasons for the final regulatory action	
2.4.1	Is the reason for the final regulatory action relevant to the human health?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, give summary of the known hazards and risks presented by the chemical to human health, including the health of consumers and workers Information on hazards to human health was as specified in the relevant Decision Guidance Document	
	Reference to the relevant documentation DGD	
	Expected effect of the final regulatory action Banning the import and use of methamidophos will reduce human exposure and associated risk to human health.	
2.4.2	Is the reason for the final regulatory action relevant to the environment?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, give summary of the known hazards and risks to the environment Information on hazards to the environment is as specified in the DGD	
	Reference to the relevant documentation DGD	
	Expected effect of the final regulatory action Reduction of risk to wildlife, aquatic animals and the ecosystem in general.	
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 type="checkbox"/> Industrial
	Use or uses prohibited by the final regulatory action	
	Use or uses that remain allowed	

2.5.2	Final regulatory action has been taken for the chemical category	<input checked="" type="checkbox"/> Pesticide
	Formulation(s) and use or uses prohibited by the final regulatory action	
	All formulations and use or uses are prohibited.	
	Formulation(s) and use or uses that remain allowed	
	None	

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

2.6	Indication, to the extent possible, of the likely relevance of the final regulatory action to other states and regions
	Minimization of the Tran boundary pollution and attended impacts to other states and regions.

2.7	Other relevant information that may cover:
2.7.1	Assessment of socio-economic effects of the final regulatory action
	None

2.7.2	Information on alternatives and their relative risks
2.7.3	Relevant additional information

PART III: GOVERNMENT AUTHORITIES

Ministry/Department and authority responsible for issuing/enforcing the final regulatory action	
Institution	FEDERAL MINISTRY OF ENVIRONMENT
Address	7 th & 9 th FLOOR, FEDERAL SECRETARIAT, SHEHU SHAGARI WAY, P.M.B 468, GARKI, ABUJA
Telephone	234-9-5234119
Telefax	234-9-5234119
E-mail address	fmenv@hyperia.com;oladapoafolabi@hotmail.com
Designated National Authority	
Institution	FEDERAL MINISTRY OF ENVIRONMENT
Address	7 th & 9 th FLOOR, FEDERAL SECRETARIAT, SHEHU SHAGARI WAY, P.M.B 468, GARKI, ABUJA
Name of person in charge	MRS. O.A. SOYOMBO
Position of person in charge	DEPUTY DIRECTOR
Telephone	234-9-6703783; 234-803-6441567
Telefax	234-9-4136317;5234119
E-mail address	ronkesoy@yahoo.com

Date, signature of DNA and official seal:

[Signature] 11/2/05
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 Fed. Secretariat Complex
 Shehu Shagari Way
 P. M. B. 468,
 Garki, Abuja.