



UNEP



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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 (g) 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: phosphamidon**

Phosphamidon: supporting documentation from Japan

Note by the secretariat

The secretariat has the honour to provide, in the annex to the present note, the supporting documentation supplied by Japan in support of its notification of final regulatory action on phosphamidon.

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

Annex

The Japanese DNA for the PIC Convention would like to submit the following information on our notification of final regulatory action on Phosphamidon.

I. Supporting Documentation

1. Properties referenced in Section 1.8 of the notification form
See Annex 1 and 2 to this document.
2. Risk or hazard evaluation referenced in Section 2.3 of the notification form
See Annex 3 to this document.
3. Relevant documentation for Section 2.4.1, referring to protecting human health
“Guidance on handle of poisonous and deleterious substances (Japanese),” Jijitsushinsha, 2001
Summary:
The Ministry of Health, Labour and Welfare conducted the acute toxicity tests of Phosphamidon and found that the substance has strong toxicity and may be harmful to human health when misused. If inhaled in large quantity, it causes poisoning, headache, nauseous, fever, palsy and convulsion. Since 1965, Phosphamidon has been banned under the Poisonous and Deleterious Substances Control Law, which regulates acutely toxic or corrosive substances.
4. Any other information used in making the decision to ban this chemical
No information

II. Trade Information

1. Ongoing trade
There is no ongoing trade occurring.
2. Manufacture within Japan and the export destination if manufactured
No information
3. The date the chemicals were last imported into Japan
No information

Focused Summary

1. Introduction

- a) The events that led to the regulatory action

The regulation on manufacture, import and possession of Phosphamidon was banned under the Poisonous and Deleterious Substances Control Law, as a result of the Ministry of Health, Labour and Welfare's tests finding that the substance has strong toxicity and may be harmful to human health when misused.

- b) Significance of regulatory action

Since 1965, manufacture, import and possession of Phosphamidon have been banned. After the regulation took effect, the substance's use ceased. Currently, any uses are banned except for research or analysis purposes.

- c) An overview of the regulatory system of the notifying country

The Ministry of Health, Labour and Welfare is responsible for the regulation of chemical substances with acute toxicity likely to cause health hazard. Once a chemical is classified as Specified Toxic Substance, manufacture, import, sale, use, transfer and possession of the chemical is severely restricted. Registration standards are pre-determined, publicly available selection criteria for facility and usage.

The Ministry of Agriculture, Forestry and Fisheries is responsible for the regulation of any kinds of chemicals used as agricultural pesticide. Under the Agricultural Chemicals Regulation Law, manufacture, process and import of such chemical is banned unless registered. Pre-determined, publicly available selection criteria are applied to the data a registrant is required to submit.

- d) Scope of the regulatory action

Since 1965, Phosphamidon's use, manufacture, etc. have been banned for any purposes and all formulations, and there is no product including the chemical in Japan.

2. Risk Evaluation

- a) Key findings of the national risk evaluation,
b) Key data reviews consulted and a brief description,
and c) Reference to national studies

See Annex 3 to this document.

- d) Summary of actual human exposure / environmental fate

There is no human exposure as there is no product containing Phosphamidon.

4. Risk Reduction and Relevance to Other States

- a) Estimates of the quantity of chemicals used, or imported/exported at the time of the regulatory action, info on ongoing trade

There was no case of international trade of Phosphamidon at the time of the regulation. There is no information on ongoing trade.

- b) Relevance to other states

No information

- c) Comments on the typical use of the chemical within the notifying country, possible misuse

Until the regulation took place, Phosphamidon had been used as pesticide against harmful insects of rice. Possible misuses are inhalation, deposit on skin, and long-time exposure to its mists during splaying work.

Annex 1

Physico-chemical properties of Phosphamidon

Reference: Guidance on handle of poisonous and deleterious substances in Japanese, p.761, jijituushinsya (2001)

The exact evaluation and examination data on Phosphamidon, which led to the final regulatory action, are lost. Physico-chemical properties of the chemical are summarized as follow.

Physico-chemical properties

Appearance: Colorless oily matter

Degree of solubility: water; easy, organic solvent; easy

Boiling point: 162 degree C (1.5mmHg)

Relative density: 1.213

Annex 2

Description of toxicological properties of Phosphamidon

Reference: Guidance on handle of poisonous and deleterious substances in Japanese, p.761, jijituushinsya (2001)

The exact evaluation and examination data on Phosphamidon, which led to the final regulatory action, are lost. Toxic properties of the chemical are summarized as follow.

Physico-chemical properties

Toxicological properties

It is a kind of the organic phosphorus tablet and has the same strong toxicity as Parathion. LD50 Oral: 11.2mg/kg(Mouse), LD50 hypodermic: 6.3mg/kg(Mouse)
(Reference)

Toxicity of Phosphamidon: If inhaled in large spray, deposited on skin, or bathed in mists for long time, Phosphamidon harms human health.

Organic phosphorus is not only taken inside the body from a mouth or a trachea, but is also taken from skin considerably. As it combines with acetylcholine esterase in blood, its actions are inhibited. Acetylcholine, if accumulated, causes excessive stimulus effects on the nerve.

Another support document on toxicity of Phosphamidon

The information on the substance in RTECS at present is quoted below.

ACUTE TOXICITY

LDL0/LCL0 - LOWEST PUBLISHED LETHAL DOSE/CONC

Domestic Animals - Goat, Sheep

LDL0 - ROUTE: Oral; DOSE: 60 mg/

TOXIC EFFECTS:

Peripheral Nerve and Sensation - Spastic paralysis with or without sensory change

Behavioral- Convulsions or effect on seizure threshold

Kidney, Ureter, and Bladder- Changes in both tubules and glomeruli

LD50/LC50 - LETHAL DOSE/CONC 50% KILL

Rat

LC50 - ROUTE: Inhalation; DOSE: 135 mg/m³/4H

TOXIC EFFECTS:

Behavioral- Tremor

Behavioral- Muscle contraction or spasticity

Lung, Thorax, or Respiration - Dyspnea

LD50 - ROUTE: Intraperitoneal; DOSE: 8700 ug/kg

LD50 - ROUTE: Intratracheal; DOSE: 17 mg/kg

LD50 - ROUTE: Oral; DOSE: 8 mg/kg]

LD50 - ROUTE: Subcutaneous; DOSE: 15 mg/kg

LD50 - ROUTE: Skin; DOSE: 125 mg/kg

Mouse

LC50 - ROUTE: Inhalation; DOSE: 30 mg/m³/1H

LD50 - ROUTE: Intraperitoneal; DOSE: 5800 ug/kg

LD50 - ROUTE: Intravenous; DOSE: 6 mg/kg

TOXIC EFFECTS:

Behavioral- Convulsions or effect on seizure threshold

Lung, Thorax, or Respiration - Other changes

LD50 - ROUTE: Oral; DOSE: 6 mg/kg

LD50 - ROUTE: Subcutaneous; DOSE: 13200 ug/kg

TOXIC EFFECTS:

Peripheral Nerve and Sensation - Fasciculations

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste) - Lacrimation

Lung, Thorax, or Respiration - Dyspnea

Rabbit

LD50 - ROUTE: Oral; DOSE: 70 mg/kg

LD50 - ROUTE: Skin; DOSE: 80 mg/kg

Guinea Pig

LC50 - ROUTE: Inhalation; DOSE: 1300 mg/m³/4H

Duck

LD50 - ROUTE: Oral; DOSE: 3100 ug/kg

LD50 - ROUTE: Skin; DOSE: 26 mg/kg

Bird - Wild Bird Species

LD50 - ROUTE: Oral; DOSE: 1800 ug/kg

OTHER LD/LO - OTHER LETHAL DOSE/CONC

Chicken

LD - ROUTE: Oral; DOSE: >100 mg/kg

TOXIC EFFECTS:

Brain and Ooverings - Other degenerative changes

Gastrointestinal/- Hypermotility, diarrhea

Biochemical/- True cholinesterase

The place to obtain the information on the ICSC card of phosphamidon is shown below.

http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/_icsc01/icsc0189.htm

(English)

Annex 3

Risk or hazard evaluation

The Poisonous and Deleterious Substances Control Law regulates acutely toxic or corrosive substances. Hazardous properties of substances are examined by the existing knowledge and the acute toxicity tests are carried out by the government. It was found that this substance has strong toxicity and may be harmful to human health when misused.

Reference to the relevant documentation

Guidance on handle of poisonous and deleterious substances in Japanese, p.761, jijituushinsya (2001)
