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**United Nations Environment Programme**

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

**Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**
**Chemical Review Committee**
**Fifth meeting**
Rome, 23–27 March 2009
Item 4 (b) (iii) of the provisional agenda*

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

# Methyl parathion

## 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. At its first meeting, the Chemical Review Committee reviewed one notification of final regulatory action related to methyl parathion from Europe (European Community). The Committee concluded that the notification met the requirements of the Rotterdam Convention. The rationale for the Committee's conclusion may be found in document UNEP/FAO/RC/CRC.5/6/Add.1.

3. The Secretariat has subsequently received one additional notification relating to methyl parathion that meets the information requirements of Annex I from Latin America and the Caribbean (Uruguay). Summaries of the notifications were included in PIC Circular XVIII of December 2004 and PIC Circular XXVIII of December 2008, respectively. The notifications, as received from the notifying countries, are set out in the annex to the present note.

* UNEP/FAO/RC/CRC.5/1.

K0842845 081208

4. The supporting documentation provided by Uruguay is set out in document UNEP/FAO/RC/CRC.5/6/Add.2.

5. A list of other notifications previously considered by the Chemical Review Committee is set out in document UNEP/FAO/RC/CRC.5/INF/4.

# Annex

**Notification of final regulatory action for methyl parathion by the European Community**

**Notification of final regulatory action for methyl parathion by Uruguay (Spanish and English)**

EUROPEAN COMMISSION
DIRECTORATE-GENERAL
ENVIRONMENT
Directorate C - Air quality, Climate change, Chemicals & Biotechnology
**ENV.C4 - Biotechnology & Pesticides**

Brussels, 08/10/03
ENV.C.4 D(03) 441540

Mr. N. Van der Graaff
Interim Secretariat for the
Rotterdam
Convention, Plant Protection
Service
Plant Production and Protection
Division, FAO
Viale delle Terme di Caracalla
IT- 00100 Rome

Dear Mr Van der Graaff,

In line with Article 5 of the Rotterdam Convention and its interim procedure, I am pleased to send you herewith a European Community notification concerning a final regulatory action in respect of parathion-methyl.

Yours sincerely,

Julian FOLEY

Cc. Mr Willis, UNEP

Rue de la Loi 200, B-1049 Bruxelles / Wetstraat 200, B-1049 Brussel - Belgium. Telephone: (32-2)299 11 11.
Office: BU5 2/125. Telephone: direct line (32-2) 296.55.47. Fax: (32-2) 296. 76.17.

*Interim Secretariat for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*

UNEP

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

COUNTRY: EUROPEAN COMMUNITY

**(Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and United Kingdom)**

## PART I: PROPERTIES, IDENTIFICATION AND USES

| 1. | IDENTITY OF CHEMICAL | |
|---|---|---|
| 1.1 | **Common name** | Parathion-methyl (BSI, E-ISO, (m) F-ISO);<br>Synonyms: methyl parathion (ESA, JMAF); metaphos (USSR) |
| 1.2 | **Chemical name according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists** | IUPAC: *O,O*-dimethyl O-4-nitrophenyl phosphorothioate<br>CA: Phosphorothioic acid, *O,O*-dimethyl O-(4-nitrophenyl) ester |
| 1.3 | **Trade names and names of preparations** | - Formulation types: capsule suspension (CS); dustable powder (DP); emulsifiable concentrate (EC); ultra low volume liquid (UL); (wettable powder (WP).<br>- Selected trade names: Folidol-M; Metacide; Cekumethion; Dhanuman; Faast; Fostox metil; Jiajiduiliulin; Morfos Methyl; Parataf; 'Paratox; Penncap-M; Sweeper; Thionyl; Bladan M; Declare; Dhanudol; Dipathio; Foley; Metpar; Metron; Paracrop; Prompt; R M Doll; R Methyl; Sabidol<br>- Mixtures: Verecar T (+ tetradifon); Afidan M 40 (+ endosulfan); Seis-Tres (+ parathion); Sulfanex-Methyl (+ endosulfan); Veto (+ EPN)<br>- Discontinued names: Methyl Bladan; Mefos |
| 1.4 | **Code numbers** | |
| 1.4.1 | **CAS number** | 298-00-0 |
| 1.4.2 | **Harmonized System customs code** | 3808 10 40 |
| 1.4.3 | **Other numbers (specify the numbering system)** | RTECS: TG0175<br>EINECS: 206-050-1<br>UN: 2783<br>CIPAC: 487 |

| 1.5 | **Indication regarding previous notification on this chemical, if any** |
|---|---|
| 1.5.1 | ☑ This is a first time notification of final regulatory action on this chemical. |

## 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

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

OR

**Interim Secretariat for the Rotterdam Convention**
**UNEP Chemicals**

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

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

| | |
|---|---|
| 1.5.2 | θ This is a modification of a previous notification of final regulatory action on this chemical.<br>The sections modified are: _____<br>θ This notification replaces all previously submitted notifications on this chemical. |
| | Date of issue of the previous notification: _____ |

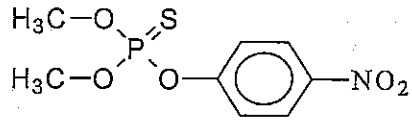
| 1.6 Information on hazard classification where the chemical is subject to classification requirements | |
|---|---|
| **International classification systems** | **Hazard class** |
| WHO (IPCS 2000-2002) | Ia (Extremely hazardous) |
| IARC (1991, vol 53) | Not classifiable as to its carcinogenicity to humans (Group 3). |
| UN Classification | UN Hazard Class: 6.1 |
| International Maritime Dangerous goods (IMDG) Code | Severe Marine pollutant, Airtight.<br>Do not transport with food and feedstuffs. |
| Transport Emergency Card | TEC (R)-61G41a |
| Classification in the EU in accordance with Council Directive 67/548/EEC | T+ (Very toxic), R28 (Very toxic if swallowed)<br>T (Toxic), R24 (Toxic in contact with skin) |
| **Other classification systems** | **Hazard class** |
| | |

**Error! Hyperlink reference not valid.**

| 1.7 Use or uses of the chemical | |
|---|---|
| 1.7.1 | ☑ **Pesticide** |
| | **Describe the uses of the chemical as a pesticide in your country:** |
| | Parathion-methyl is a non-systemic insecticide and acaricide used worldwide to control chewing and sucking insects in a very wide range of crops, such as cereals, fruits (including citrus), vines, vegetables, ornamentals, cotton, and field crops.<br><br>Intended uses within the European Community were to control *Clysia ambiguella* (common names: Grape bud moth, Vine moth, Grape cochylis) on vines (grape vine and table grape)<br>Good Agricultural Practices were considered for 1 to 3 spray applications at application rates of 0.3 kg parathion-methyl/ha. |
| 1.7.2 | θ **Industrial** |
| | **Describe the industrial uses of the chemical in your country:** |
| | No known use. |

## 1.8 Properties

### 1.8.1 Description of physico-chemical properties of the chemical

| | |
|---|---|
| **Minimum purity** | ≥ 800 g/kg |
| **FAO specification** | ≥ 950 g/Kg (FAO Specification 487/TK (2001)) |
| **Molecular Formula** | $C_8H_{10}NO_5PS$ |
| **Molecular Mass** | 263.23 |
| **Structural Formula** |  |
| **Appearance** | Technical: liquid; Purified: powder. |
| **Relative density** | 1.45 at 20 ± 1.0 °C, purity: > 99% |
| **Melting point** | 36 - 37°C Purity: > 99% |
| **Boiling point / decomposition** | unstable to heat<br>R 5; Heating may cause an explosion<br>R 10; Flammable |
| **Vapor pressure** | 2.26 x $10^{-3}$ Pa at 20°C. Purity > 99%. |
| **Henry's law constant** | 1.21 x$10^{-2}$ Pa.$m^3$/mol pH = 4 at 20°C<br>1.14 x$10^{-2}$ Pa.$m^3$/mol pH = 7 at 20°C<br>1.16 x$10^{-2}$ Pa.$m^3$/mol pH = 10 at 20°C |
| **Solubility in water** | pH = 4 49.0x$10^{-3}$ g/l at 20 ± 1.0°C<br>pH = 7 52.1x$10^{-3}$ g/l at 20 ± 1.0°C<br>pH =10 51.5x$10^{-3}$ g/l at 20 ± 1.0°C |
| **Solubility in organic solvents** (at 25°C) | The solubility in dichloromethane, ethyl acetate, p-xylene, methanol and acetone was determined to be > 1000 g/l at room temperature; n-heptane 16.10 g/l at 20 ± 0.5°C. Purity > 99% |
| **Partition coefficient (log $P_{ow}$)** | pH = 4 1019 ± 96 (log Pow 3.01) at 20 ± 1.0°C<br>pH = 7 1058 ± 32 (log Pow 3.02) at 20 ± 1.0°C<br>pH = 10 891.3 ± 119.7 (log Pow 2.95) at 20 ± 1.0°C<br>Purity > 99% |
| **Hydrolytic stability ($DT_{50}$)** | 2 studies were available:<br>pH = 5 $DT_{50}$ = 68 days; main metabolite: monodesmethylparathion-methyl<br>pH = 7 $DT_{50}$ = 40 days; main metabolites: nearly equal amounts of 4-nitrophenol and monodesmethylparathion-methyl<br>pH = 9 $DT_{50}$ = 33 days; main metabolite: 4-nitrophenol<br>Purity 99%.<br>Or<br>pH = 4 15x$10^2$ hours<br>pH = 7 12x$10^2$ hours<br>pH = 9 9.1x$10^2$ hours<br>Purity > 99%; metabolites: not stated |
| **Photostability ($DT_{50}$)** | A half-life of 8.6 days to sunlight was reported.<br>A half-life of 100 days to darkness was reported. |

Full Report on parathion-methyl (ECCO, October 2002) (copy extracts attached)

### 1.8.2 Description of toxicological properties of the chemical

**Absorption, distribution, excretion and metabolism in mammals**

Parathion-methyl is highly absorbed (>90%) and excreted within 48 hours (>99%), mainly via urine (76-92%). Parathion-methyl is extensively metabolised (desulfurization, dealkylation, sulfate conjugation, oxidation) and has no potential for accumulation.

**Acute toxicity**

| | |
|---|---|
| $LD_{50}$ (oral, rat) | 3-20 mg/kg, (T+, very toxic) |
| $LD_{50}$ (dermal, rat) | 46-491 mg/kg (T, toxic) |
| $LD_{50}$ (dermal, rabbit) | > 2000 mg/kg |
| $LC_{50}$ (inhalation, nose only, 4 h, rat) | 0.135 mg/l, (T+, very toxic) |

| | |
|---|---|
| Skin and eye irritation | non irritant |
| Sensitisation | non sensitiser (M & K) |

**Short term toxicity**

The main effects of parathion-methyl during short-term studies are the inhibition of cholinesterase and retinal alterations. The lowest relevant levels identified were:

- Dogs (oral, 90 days): NOEL= 0.3 mg/kg bw
- Rats (dermal, 28 days): LOAEL = 0.3 mg/kg bw
- Rats (inhalation, 21 days): NOAEL = 0.0009 mg/l air

**Genotoxicity:** Mutagenic in tests *in vitro* in bacteria and in mammalian cells. Equivocal evidence of genotoxicity *in vivo* in rodent somatic cells. Not mutagenic in germ cells.

**Long term toxicity**

The main effects of parathion-methyl during long- term studies are the inhibition of cholinesterase activity, ocular atrophy and peripheral neuropathy. The lowest relevant levels identified were:
- Rats (oral, 2 years): NOEL = 0.1 mg/kg bw (2 ppm)

**Carcinogenicity:** no evidence of carcinogenicity.

**Reproductive toxicity**:

- Reproduction: NOAEL (rats, reproduction) = 0.1 mg/kg bw/d (2 ppm) Reduced litter size, reduced pup survival and growth.
- Development: NOAEL (rats, maternal and developmental) = 0.3 mg/kg bw/d. Increased postimplantation loss, reduced foetal growth with concomitant maternal toxicity (rats).

No developmental toxicity even at maternal toxic doses (rabbits).
No information on developmental neurotoxicity.

**Neurotoxicity**: No signs of single dose delayed neuropathy (hens). Neuropathy in 1 year rat study: NOEL = 0.5 ppm (approx. 0.02 mg/kg bw/d) LOAEL 2.5 ppm (about 0.2 mg/kg bw/d).

**Human studies**: Old human volunteer studies suggest inhibition of plasma and red blood cell cholinesterase activity at dose levels > 0.4 mg/kg bw/d and a NOAEL for cholinesterase inhibition of 0.3 mg/kg bw/d.

| | | | |
|---|---|---|---|
| Admissible Daily Intake (ADI) | 0.001mg/kg | study: 2 year rat | Safety factor 100 |
| Acceptable Operator Exposure (AOEL) | 0.003 mg/kg | study: 90 days dog | Safety factor 100 |
| Acute Reference dose (ARfD) | 0.03 mg/kg | human data | Safety factor 10 |

Full Report on parathion-methyl (ECCO, October 2002) (copy extracts attached)

**1.8.3 Description of ecotoxicological properties of the chemical**

**Fate and behaviour**

Soil: Parathion-methyl is not persistent in soil. Mineralisation after 120 days is about 60 % of the initial parathion-methyl treatment. Parathion-methyl degraded with half-lives of 12 to 22 days in laboratory studies. The main metabolite observed is p-nitrophenol.

Water:

- Ground water: Parathion-methyl is adsorbed and is not expected to leach in soil with water. Koc adsorption = 230 to 670.
- Surface water: hydrolysis half lives of parathion-methyl range from 33 to 68 days, depending of pH. Parathion-methyl is assumed to be biodegradable.

Air: volatilisation: 74% of the applied dose was lost from plant surfaces after 24 hours, whereas its volatilisation from soil was markedly lower.

**Ecotoxicology:**

- Terrestrial vertebrates

| | | | |
|---|---|---|---|
| - Birds: | Acute toxicity | Mallard duck | $LD_{50}$ = 5.3 mg a.s./kg bw |
| | Acute toxicity | Bobwhite quail | $LD_{50}$ = 49 mg a.s./kg bw (microencapsulated formulation) |
| | Short term dietary | Japanese quail | $LC_{50}$ = 79mg a.s./kg food(ppm) |
| | Reproductive tox | Bobwhite quail | NOEC = 0.58 mg a.s./kg bw (6.27 ppm) |
| - Mammals | Acute toxicity | Rat, oral | $LC_{50}$ = 2.9 mg a.s./kg bw |
| | | Rat, oral | $LC_{50}$ > 1080 mg a.s./kg bw (microencapsulated formulation) |

- Aquatic species

| | | | |
|---|---|---|---|
| Fish | (96 hours) | *Oncorhynchus mykiss* | $LC_{50}$ = 2.7 mg a.s. tech./l |
| | (35 days) | *Cyprinodon variegates* | NOEC = 0.012 mg a.s. tech/l |
| | (89 days) | *Oncorhynchus mykiss* | NOEC = 0.082 mg a.s. /l (microencaps.) |
| - Invertebrate | (48 hours) | *Daphnia magna* | $EC_{50}$ = 0.0073 mg a.s. tech/l |
| | (48 hours) | | $EC_{50}$ < 0.0030 mg a.s./l (microencap) |
| | (21 days) | *Daphnia magna* | NOEC = 0.00043 mg a.s. tech/l (growth) |
| | (21 days) | *Daphnia magna* | NOEC = 0.00023 mg WP form./l |
| Algae | (96 hours) | *Scenedesmus suspicatus.* | $EC_{50}$ = 0.1 mg a.s. tech./l (growth) |
| | (96 hours) | *Scenedesmus suspicatus* | $EC_{50}$ = 1.9 mg 42% WP/l (growth) |

Bioconcentration factor: 71

- Bees: $LD_{50}$ (oral) = 0.013 µg a.s./bee. $LD_{50}$ (contact) = 0.04 µg a.s./bee.
- Other arthropods:
  - Application rates ranging from 0.008 to 0.37 kg a.s./ha have produced 100 % mortality (laboratory test) in *A. bilineata, B. tetracolum, C. carnea, E. balteathus*, and *Coccinella septenpuncta* and caused 100% reduction of parasitism in *T. cacoecia.*
- Earthworm: Acute 0.019 < 14d$LC_{50}$ < 0.192 kg a.s./kg (WP formulation)
  Sublethal: NOEC = 2 x 0.375 kg a.s./ha (=1 mg a.s./kg dry soil) (WP formulation)
- Soil micro-organisms: Nitrogen and carbon mineralisation: No effect up to 3.6 Kg a.i/ha in loamy sand and silt soil (WP formulation).

Full Report on parathion-methyl (ECCO, October 2002 (copy extracts attached)

# PART II: FINAL REGULATORY ACTION

| | | | | |
|---|---|---|---|---|
| 2. | FINAL REGULATORY ACTION | | | |
| 2.1 | **The chemical is:** | ☑ **banned** | **OR** | θ **severely restricted** |
| 2.2 | **Information specific to the final regulatory action** | | | |
| 2.2.1 | **Summary of the final regulatory action**<br>It is prohibited to place on the market or use plant protection products containing parathion-methyl. Parathion-methyl is not included as an authorised active ingredient in Annex I to Directive 91/414/EEC.<br>The authorisations for plant protection products containing parathion-methyl had to be withdrawn within a period of 6 months from the date of adoption of the Commission Decision 2003/166/EC. From that date, no authorisations for plant protection products containing parathion-methyl could be granted or renewed. | | | |
| 2.2.2 | **Reference to the regulatory document**<br>Commission Decision 2003/166/EC of 10/03/2003 concerning the non-inclusion of parathion-methyl in Annex I to Council Directive 91/414/EEC and the withdrawal of authorisations for plant protection products containing this active substance (Official Journal of the European Union L67 of 12/03/2003, pp. 18-19) (copy attached, available at http://europa.eu.int/eur-lex/en/archive/2003/l_06720030312en.html). | | | |
| 2.2.3 | **Date of entry into force of the final regulatory action**<br>9 September 2003. Authorisations for plant protection products containing parathion-methyl had to be withdrawn within a period of six months from the date of the final regulatory action. | | | |

| | | | |
|---|---|---|---|
| 2.3 | **Was the final regulatory action based on a risk or hazard evaluation?** | ☑ **Yes** | θ **No** |
| | **If yes, give information on such evaluation**<br>Directive 91/414/EEC provides for the European Commission to carry out a programme of work for the examination of existing active substances used in plant protection products which were already on the market on 25 July 1993, with a view to their possible inclusion in Annex I to the Directive.<br>Within this context, a number of companies notified their wish to secure the inclusion of parathion-methyl as an authorised active ingredient. A Member State was designated to undertake a hazard and risk assessment based on the dossier submitted by the notifiers. The assessment report was subjected to peer review, during which the Commission undertook extensive consultations with experts of the Member States as well as with the main notifier. The results were then reviewed by the Member States and the Commission within the Standing Committee on the Food Chain and Animal Health (SCFCAH) before a final decision was taken.<br><br>The evaluation was based on the review of scientific data generated for parathion-methyl and for the use of a representative formulation in the context of the conditions prevailing in the European Community (intended uses, recommended application rates, good agricultural practices).Only data that had been generated according to scientifically recognized methods were validated and used for the evaluation. Moreover data reviews were performed and documented according to generally recognized scientific principles and procedures.<br><br>It was concluded that parathion-methyl was not demonstrated to fulfil the safety requirements laid down in Article 5 (1) (a) and (b) of Directive 91/414/EEC. The following areas of concern were identified: the safety of operators potentially exposed to parathion-methyl; and the possible impact of the substance on non-target insects, birds and mammals.<br>In addition available data were insufficient concerning the following: identity, physical and chemical properties and methods of analysis, the environmental fate and ecotoxicology of the substance; certain aspects concerning mammalian toxicology; plant metabolism and residues in treated crops. | | |
| | **Reference to the relevant documentation**<br>Review report for the active substance parathion-methyl 2665/01-final: 18 October 2002 (copy attached) and supporting background documents (dossier, monograph, and the peer review report under the Peer review Programme (ECCO, October 2002) | | |

| 2.4 | Reasons for the final regulatory action | |
|---|---|---|
| 2.4.1 | **Is the reason for the final regulatory action relevant to the human health?** | ☑ Yes θ 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**

Final regulatory action was taken to protect operators applying plant protection products containing parathion-methyl.

The principal issues which lead to these overall conclusions relate mainly to concerns about operator exposure. Exposure scenarios using UK Predictive Operator Exposure Model demonstrated that operator exposure was unacceptable for the proposed uses within the European Community (grapevines and table grapes). The estimated exposure exceeded the acceptable operator exposure level (AOEL) during the mixing/loading and the application operations, even when personal protective equipment (PPE) was worn. Using the German Model, scenarios for high crops/tractor mounted applications were acceptable using PPE, but not for high crops/hand held scenarios.

A safe use for consumers exposed to potential residues resulting from the use of these plant protection products was not demonstrated. No metabolism data relevant to grapes (and processed products) were available. The notifier provided data on several crop residues, from which no extrapolation was possible, thus preventing an adequate risk assessment . Moreover this was not considered necessary as it was already demonstrated that the use of parathion -methyl was not safe for operators, which was sufficient grounds to take the final regulatory action.

**Reference to the relevant documentation**

Review report for the active substance parathion-methyl 2665/01-final: 18 October 2002 (copy attached) and supporting background documents (dossier, monograph, and the peer review report under the Peer review Programme (ECCO, October 2002)

**Expected effect of the final regulatory action**

Complete reduction of risk from plant protection uses.

| 2.4.2 | **Is the reason for the final regulatory action relevant to the environment?** | ☑ Yes θ No |
|---|---|---|

**If yes, give summary of the known hazards and risks to the environment**

Final regulatory action was taken to protect non-target organisms.
Concerns were identified with regard to:
- Insectivorous birds: the acute and long-term risk was found unacceptable following the use of parathion-methyl on vines at the application rate of 0.3 kg a.s./ha, based on technical material data.
- Herbivorous mammals: the acute risk was found unacceptable following the use of parathion-methyl on vines at the application rate of 0.3 kg a.s./ha, based on technical material data.
The risk associated with the use of microencapsulated formulation was acceptable.
- Aquatic vertebrates: The risk evaluation based on data from both technical material and formulations found an unacceptable risk at the application rate of 0.3 kg a.s./ha on vines. The risk could be acceptable when mitigation measures (buffer zone) were used.
- Aquatic invertebrates: The acute and chronic risk associated with the use of both technical material and microencapsulated formulations was unacceptable at the application rate of 0.3 kg a.s./ha on vines, even when a buffer zone of 50 m was considered.
- High toxicity was recorded for non-target arthropods, and the long-term risk to earthworms was unacceptable.

**Reference to the relevant documentation**

Review report for the active substance parathion-methyl 2665/01-final: 18 October 2002(copy attached) and supporting background documents (dossier, monograph, and the peer review report under the Peer review Programme (ECCO, October 2002)

**Expected effect of the final regulatory action**

Complete reduction of risk from plant protection uses

| 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** | θ **Industrial** |
| | **Use or uses prohibited by the final regulatory action** | |
| | Not relevant | |
| | **Use or uses that remain allowed** | |
| | No known industrial uses. Not relevant. | |

| 2.5.2 | Final regulatory action has been taken for the chemical category | ☑ Pesticide |
|---|---|---|
| | **Formulation(s) and use or uses prohibited by the final regulatory action** | |
| | All applications as plant protection product. | |
| | **Formulation(s) and use or uses that remain allowed** | |
| | EC Member States may have granted a period of grace for disposal, storage, placing on the market and use of existing stocks, no longer than 18months from the date of adoption of Commission Decision 2003/166/EC (*i.e.* until 9 September 2004). | |

| 2.5.3 Estimated quantity of the chemical produced, imported, exported and used, where available. | | |
|---|---|---|
| | **Quantity per year (MT)** | **Year** |
| **Produced** | Not available | |
| **Imported** | Not available | |
| **Exported** | Not available | |
| **Used** | Not available | |

| 2.6 | **Indication, to the extent possible, of the likely relevance of the final regulatory action to other states and regions** |
|---|---|
| | The final regulatory action was taken in light of the conclusions of the risk evaluation performed for uses as proposed in Northern and Southern European Member States, which covered a large and diverse geographic area.<br>Similar health and environmental problems are likely to be encountered in other countries where substance is used, particularly in developing countries. |

| 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** |
|---|---|
| | Intended uses within the European Community were to control *Clysia ambiguella* (common names: Grape bud moth, Vine moth, Grape cochylis) on vines (grape vine and table grape).<br>Biological agents, such as Trichogrammatidae, genre Trichogramma may be used to combat *Clysia ambiguella.* |
| 2.7.3 | **Relevant additional information** |
| | |

## PART III : GOVERNMENT AUTHORITIES

| Ministry/Department and authority responsible for issuing/enforcing the final regulatory action | |
|---|---|
| **Institution** | European Commission |
| **Address** | Rue de la Loi, 200<br>B-1049 Brussels<br>Belgium |
| **Telephone** | +322 299 48 60 |
| **Telefax** | +322 299 8558 |
| **E-mail address** | klaus.berend@cec.eu.int |
| **Designated National Authority** | |
| **Institution** | DG Environment<br>European Commission |
| **Address** | Rue de la Loi, 200<br>B-1049 Brussels<br>Belgium |
| **Name of person in charge** | Klaus BEREND |
| **Position of person in charge** | Administrator |
| **Telephone** | +322 299 48 60 |
| **Telefax** | +322 296 76 17 |
| **E-mail address** | env-pic@cec.eu.int |

**Date, signature of DNA and official seal:** 8.10.03

*Secretaría del Convenio de Rotterdam sobre el procedimiento de consentimiento fundamentado previo aplicable a ciertos plaguicidas y productos químicos peligrosos objeto de comercio internacional*

UNEP

# FORMULARIO
# NOTIFICACIÓN DE MEDIDA REGLAMENTARIA FIRME PARA PROHIBIR O RESTRINGIR RIGUROSAMENTE UN PRODUCTO QUÍMICO

IMPORTANTE: Véanse las instrucciones antes de rellenar el formulario

**PAÍS: REPÚBLICA ORIENTAL DEL URUGUAY**

## PARTE I: PROPIEDADES, IDENTIFICACIÓN Y USOS

| | | |
|---|---|---|
| **1.** | **IDENTIDAD DEL PRODUCTO QUÍMICO** | |
| **1.1** | **Nombre común** | Metil Paration |
| **1.2** | **Nombre del producto químico en una nomenclatura internacionalmente reconocida (por ejemplo, la de la UIQPA), si tal nomenclatura existe** | O,O-Dimetil O-4-nitrofenil fosforotioato |
| **1.3** | **Nombres comerciales y nombres de las preparaciones** | Agrex 60-2, Agrometil, Agrotox 50, Arathion, Azobane, Bacidal Saniflor, Basmetil, Bellotion, Biedo, Cekumethion, Dimetiox 20, Ditil, Ecadion methyl, Eltox 40 EC, Folidol M, Folidol Ultra, Folipolvo, Folitox, Fosmetile 25, Fostox metil, Insecfos,Invertox, Kelthane, Lirothion, Mefos 40 EC, Mepaton, Mepatox 2, Metacide, Metagran, Metaphos, Metil paration, Methyl Paretox, Metil Paraben, Metox 20, Neutrion extra, Nitrox 80, Oleo paration, Parafos, Parathion metílico, Paramethyl 40 EC, Paratox, Penncap M, Penntox, Super Acarol EC, Taxi-Solon, Toxition, Trimeton EC, Unidol, Vention, Vention Super 2, Wintol, Wofatox. |
| **1.4** | **Números de código** | |
| **1.4.1** | **Número CAS** | 298-00-0 |
| **1.4.2** | **Código aduanero del Sistema Armonizado** | 38081091 (insecticida liquido)<br>38081092 (insecticida polvo) |
| **1.4.3** | **Otros números (especificar el sistema de numeración)** | Nº RTECS TG0175000 |

## SÍRVASE ENVIAR DE VUELTA EL FORMULARIO RELLENADO A:


**Secretaría del Convenio de Rotterdam**
**Plant Protection Service**
**Plant Production and Protection Division, FAO**
Viale delle Terme di Caracalla
00100 Rome, Italy
Téléfono: (+39 06) 5705 3441
Fax: (+39 06) 5705 6347
Correo electrónico: pic@fao.org

O

**Secretaría del Convenio de Rotterdam**
**UNEP Chemicals**
11-13, Chemin des Anémones
CH – 1219 Châtelaine, Geneva, Switzerland
Téléfono: (+41 22) 917 8296
Fax: (+41 22) 917 8082
Correo electrónico: pic@pic.int

| **1.5** | **Indicación respecto de una notificación anterior sobre este producto químico, si la hubiere** |
|---|---|
| **1.5.1** | Xθ La presente es una primera notificación de una medida reglamentaria firme respecto de este producto químico. |
| **1.5.2** | θ La presente es una modificación de una medida reglamentaria firme de una notificación presentada anteriormente respecto de este producto químico.<br>θ Esta notificación sustituye todas las notificaciones presentadas con anterioridad respecto de este producto químico. |
| | Fecha de emisión de la notificación anterior: _____ |

**1.6 Información sobre clasificación de peligros, si el producto químico está sujeto a requisitos de clasificación**

| **Sistemas de clasificación internacionales** | **Categoría de peligro** |
|---|---|
| OMS | Clase 1a (extremadamente peligroso) |
| U.S. EPA | Categoria 1 (altamente tóxico) |
| U.S. EPA | Grupo C (posible carcinógeno en humanos) |
| EU | T+ (muy tóxico) |
| IARC | Grupo 3 |
| **Otros sistemas de clasificación** | **Categoría de peligro** |
| | |
| | |
| | |
| | |
| | |

| **1.7** | **Uso o usos del producto químico** |
|---|---|
| **1.7.1** | X θ **Plaguicida** |
| | **Describa los usos del producto químico como plaguicida en su país:** |
| | Insecticida y acaricida de amplio espectro. |
| **1.7.2** | θ **Industrial** |
| | **Describa los usos industriales del producto químico en su país:** |
| | |

| **1.8** | **Propiedades** |
|---|---|
| **1.8.1** | **Descripción de las propiedades fisico-químicas** |

| | |
|---|---|
| | Aspecto: Sólido cristalino incoloro<br>Fórmula: $C_8H_{10}NO_5PS$<br>Peso Molecular 263.3<br>Punto de Fusión: 35-65 °C<br>Punto de ebullución: 154 °C / 136 Pa<br>Presión de vapor (20°C): 0.2 mPa<br>Solubilidad en agua (20°C) 55 mg/L<br>Kow logP: 3.0<br>Constante de Ley de Henry: $8.57 \times 10^{-3}$ Pa $m^3$/mol<br><br>Soluble en la mayoría de los solventes orgánicos<br>$Ch_2Cl_2$, Tolueno, >200 g/L.<br>Hexano 10-20 g/L.<br><br>Estabilidad: Rápidamente hidrolizado en medio alcalino o ácido.<br><br>Ref.: The Pesticide Manual. Thirteenth Edition. CDS Tomlin. 2003 BCPC. |

| | |
|---|---|
| **1.8.2** | **Descripción de las propiedades toxicológicas**<br><u>Toxicidad aguda:</u><br>Oral<br>- DL50 ratas: 14 mg/kg (OMS).<br>- DL50 rata: 18 - 50 mg/kg.<br>- DL50 ratón: 14.5 - 19.5 mg/kg.<br>- DL50 conejo: 420 mg/kg.<br>- DL50 conejillo de Indias: 1270 mg/kg.<br>- DL50 perro: 90 mg/kg.<br>Dérmica<br>- DL50 rata: 63 - 491 mg/kg.<br>- DL50 ratón: 1200 mg/kg.<br>- DL50 conejo: 300 mg/kg.<br>Inhalación<br>- CL50 rata: 34 mg/m3/4h.<br>- CL50ratón: 120 mg/m3/4h.<br><br>Se puede absorber por las vías respiratoria, digestiva y dérmica.<br>En contacto con la piel y los ojos, puede causar quemaduras.<br><br>Ref.: Organización Panamericana de la Salud (OPS).<br>Organización Mundial de la Salud (OMS).. |
| **1.8.3** | **Descripción de las propiedades ecotoxicológicas**<br>Posee movilidad en el suelo mediana y también es poco bioacumulable.<br>Es muy tóxico para organismos acuáticos y para los animales que se alimentan de éstos, al igual que para las abejas. Moderadamente peligroso para aves.<br><br><u>Toxicidad Aguda</u><br>Aves: LC50 (5d) pato silvestre: 1044mg/Kg<br>Peces: LC50 (96h) trucha arco iris: 2.7 mg/L<br>Dafnia: LC50 (48h): 0.0073 mg/L.<br>Algas: ErC50 (Scenedesmus subspicatus) 3mg/L<br>Lumbrices se suelo: LC50 40mg/Kg de suelo.<br>Tóxico para abejas<br><br>Ref.: The Pesticide Manual. Thirteenth Edition. CDS Tomlin. 2003 BCPC. |

## PARTE II. MEDIDA REGLAMENTARIA FIRME

| | | |
|---|---|---|
| **2.** | **MEDIDA REGLAMENTARIA FIRME** | |
| **2.1** | **El producto químico está:** θ **prohibido** **O** **X**θ **rigurosamente restringido** | |
| **2.2** | **Información específica sobre la medida reglamentaria firme** | |
| **2.2.1** | **Resumen de la medida reglamentaria firme** | |

Debido a:

- la alta toxicidad para el ser humano de los productos a base de metil paration y, particularmente, el elevado riesgo para quienes los aplican;
- el elevado riesgo para insectos benéficos y su extrema toxicidad para aves;
- que a pesar de su alta toxicidad, el riesgo puede ser sensiblemente disminuido por la utilización de formulaciones microencapsuladas;
- su corta vida media, su rápida degradación microbiana y la escasa capacidad de bioconcentración, le confieren algunas ventajas desde el punto de vista ambiental;
- para algunos de los usos autorizados del metil paration, no existen productos sustitutivos que cumplan con las condiciones de menor toxicidad e igualdad, en cuanto a eficacia del producto, lo que amerita mantener la autorización de formulaciones microencapsuladas y usos específicos;
- todas las formulaciones a base de este ingrediente activo, exceptuando las microencapsuladas, integran la nómina de productos incluidos en el Procedimiento de Consentimiento Fundamentado Previo de la FAO / PNUMA;

Se Prohíbe el registro y la aplicación de productos fitosanitarios a base de metil paration para todo uso agrícola a excepción de:

1- los formulados como microcápsula dispersa en agua que además cumplan con las siguientes condiciones:
   - Uso: solo en frutales
   - Tiempo de espera: 35 días
   - Aplicación: solo terrestre
   - Concentración de ingrediente activo: máximo 45% (p/v).
2- los hormiguicidas formulados como polvo con un porcentaje de ingrediente activo igual o menor al 2%.

| | | |
|---|---|---|
| **2.2.2** | **Referencia al documento reglamentario** | |
| | Resolución del Ministerio de Ganadería, Agricultura y Pesca. Montevideo, 30 de enero 2002. | |
| **2.2.3** | **Fecha de entrada en vigor de la medida reglamentaria firme** | |
| | 30 de Junio de 2002. | |

| | | |
|---|---|---|
| **2.3** | **La medida reglamentaria firme se tomó sobre la base de una evaluación de los riesgos o peligros?** | **X**θ **Sí** θ **No** |
| | **En caso afirmativo, proporcione información sobre dicha evaluación** | |
| | Se realizó en base a los peligros inherentes a los productos a base de metil paration. Sustancia incluida en el Procedimiento de Consentimiento Fundamentado Previo (FAO/PNUMA). Dada su elevada toxicidad para el ser humano y su alta toxicidad para insectos benéficos y aves, significa un gran riesgo para los trabajadores rurales, para el resto de lo población expuesta y para el ecosistema en general. | |
| | **Referencia a la documentación pertinente** | |

| | |
|---|---|
| | Sustancia incluida en el Procedimiento de Consentimiento Fundamentado Previo. (FAO/PNUMA). |

| | | |
|---|---|---|
| **2.4** | **Motivos para tomar la medida reglamentaria firme** | |
| **2.4.1** | **El motivo por el que se adoptó la medida reglamentaria firme guarda relación con la salud humana?** | **X Sí** **θ No** |
| | **En caso afirmativo, proporcione un resumen de los peligros y los riesgos conocidos que el producto químico plantea para la salud humana, incluida la salud de los consumidores y de los trabajadores** | |
| | Se realizó considerando la alta toxicidad de dichos productos para el ser humano y, particularmente, el elevado riesgo para quienes los aplican. | |
| | **Referencia a la documentación pertinente** | |
| | Sustancia incluida en el Procedimiento de Consentimiento Fundamentado Previo. (FAO/PNUMA). | |
| | **Efecto previsto de la medida reglamentaria firme** | |
| | Restringir y disminuir el uso de productos a base de metil paration con la consecuente disminución de los riesgos para los trabajadores rurales y la salud humana en general. | |

| | | |
|---|---|---|
| **2.4.2** | **El motivo por el que se adoptó la medida reglamentaria firme guarda relación con el medio ambiente?** | **X Sí** **θ No** |
| | **En caso afirmativo, proporcione un resumen de los peligros y riesgos conocidos respecto del medio ambiente** | |
| | Debido a la toxicidad inherente a los productos a base de metil paration , el uso de éstos significa un elevado riesgo para aves e insectos benéficos. | |
| | **Referencia a la documentación pertinente** | |
| | Sustancia incluida en el Procedimiento de Consentimiento Fundamentado Previo. (FAO/PNUMA). | |
| | **Efecto previsto de la medida reglamentaria firme** | |
| | Restringir y disminuir el uso de productos fitosanitarios a base de metil paration con la consecuente disminución de los riesgos y peligros para el medio ambiente.. | |

| | | |
|---|---|---|
| **2.5** | **Categoría o categorías con respecto a las cuales se ha adoptado la medida reglamentaria firme** | |
| **2.5.1** | **La medida reglamentaria firme se ha tomado para la categoría del producto químico** | **θ Industrial** |
| | **Uso o usos prohibidos por la medida reglamentaria firme** | |
| | | |
| | **Uso o usos que se siguen autorizando** | |
| | | |

| | | |
|---|---|---|
| **2.5.2** | **La medida reglamentaria firme se ha tomado para la categoría del producto químico** | **X Plaguicida** |
| | **Formulación (o formulaciones) y uso (o usos) prohibidos por la medida reglamentaria firme** | |

Se prohiben todas la formulaciones a base de metil paration a excepción de los microencapsulados solubles en agua y los hormiguicidas formulados en polvo con un porcenage de ingrediente activo igual o menor al 2%.

**Formulación o formulaciones y uso o usos que se siguen autorizando**

Formulados en microcapsulas que además cumplan con las siguientes condiciones:

a) Uso: solo en frutales
b) Tiempo de espera: 35 días
c) Aplicación: solo terrestre
d) Concentración de ingrediente activo: máximo 45% (p/v).

Hormiguicidas formulados como polvo con un porcentaje de ingrediente activo igual o menor al 2%.

**2.5.3 Estimación de las cantidides del producto químico producido, importado, exportado y utilizado, en los casos en que se disponga de ese dato, si fuese posible**

| | Cantidad al año (TM) | Año |
|---|---|---|
| **Se produce** | | |
| **Se importa** | | |
| **Se exporta** | | |
| **Se usa** | | |

**2.6 Indicación, en la medida de lo posible, de la probabilidad de que la medida reglamentaria firme afecte a otros Estados o regiones**

**2.7 Información adicional pertinente que puede incluir:**

**2.7.1 Una evaluación de los efectos socioeconómicos de la medida reglamentaria firme**

**2.7.2 Información sobre alternativas y sus riesgos relativos**

| | |
|---|---|
| | |
| **2.7.3** | **Información complementaria pertinente** |
| | |

## PARTE III: AUTORIDADES GUBERNAMENTALES

| **Ministerio/Departamento y autoridad encargada de la emisión/aplicación de la medida reglamentaria firme** | |
|---|---|
| **Institución** | Ministerio de Ganadería Agrícultura y Pesca |
| **Dirección** | Millán 4703 |
| **Teléfono** | + 5982 3098410 interno 103 |
| **Telefax** | |
| **Dirección electrónica** | halmirati@mgap.gub.uy |
| **Autoridad nacional designada** | |
| **Institución** | Ministerio de Ganadería Agricultura y Pesca |
| **Dirección** | Millán 4703 |
| **Nombre de la persona responsable** | Ing. Agr. Humberto Almirati |
| **Cargo de la persona responsable** | Director de la Dirección General de Servicios Agrícolas |
| **Teléfono** | + 5982 3098410 interno 103 |
| **Telefax** | |
| **Correo electrónico** | halmirati@mgap.gub.uy |

**Fecha, firma de la autoridad nacional designada y sello oficial:** _____

Ing. Agr. HUMBERTO ALMIRATI LOMBARDI
DIRECTOR GENERAL
PROGRAMA 004
M.G.A.R - SERVICIOS AGRICOLAS

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

UNEP

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

IMPORTANT: See instructions before filling in the form

**COUNTRY: THE EASTERN REPUBLIC OF URUGUAY**

## PART I: PROPERTIES, IDENTIFICATION AND USES

| | | |
|---|---|---|
| **1.** | **IDENTITY OF CHEMICAL** | |
| **1.1** | **Common name** | Parathion-methyl |
| **1.2** | **Chemical name according to an internationally recognized nomenclature (e.g. IUPAC), where such nomenclature exists** | O,O-Dimethyl O-4-nitrophenyl phosphorothioate |
| **1.3** | **Trade names and names of preparations** | Agrex 60-2, Agrometil, Agrotox 50, Arathion, Azobane, Bacidal Saniflor, Basmetil, Bellotion, Biedo, Cekumethion, Dimetiox 20, Ditil, Ecadion methyl, Eltox 40 EC, Folidol M, Folidol Ultra, Folipolvo, Folitox, Fosmetile 25, Fostox metil, Insecfox, Invertox, Kelthane, Lirothion, Mefos 40 EC, Mepaton, Mepatox 2, Metacide, Metagran, Metaphos, Metil Paration, Methyl Paretox, Metil Paraben, Metox 20, Neutrion extra, Nitrox 80, Oleo paration, Parafos, Parathion metilico, Paramethyl 40 EC, Paratox, Penncap M, Penntox, Super Acarol EC, Taxi-Solon, Toxition, Trimeton EC, Unidol, Vention, Vention Super 2, Wintol, Wofatox. |
| **1.4** | **Code numbers** | |
| **1.4.1** | **CAS number** | 298-00-0 |
| **1.4.2** | **Harmonized System customs code** | 38081091 (liquid insecticide)<br>38081092 (powder insecticide) |
| **1.4.3** | **Other numbers (specify the numbering system)** | N° RTECS TG0175000 |
| **1.5** | **Indication regarding previous notification on this chemical, if any** | |
| **1.5.1** | X This is a first time notification of final regulatory action on this chemical. | |

## 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

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

**OR**

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

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

| | |
|---|---|
| **1.5.2** | ❑ This is a modification of a previous notification of final regulatory action on this chemical.<br>The sections modified are: _____<br>❑ This notification replaces all previously submitted notifications on this chemical. |
| | Date of issue of the previous notification: _____ |

**1.6 Information on hazard classification where the chemical is subject to classification requirements**

| International classification systems | Hazard class |
|---|---|
| WHO | Class 1a (extremely harmful) |
| U.S. EPA | Cat I (highly toxic) |
| U.S. EPA | Group C (possible carcinogenic for humans) |
| EU | T+ (very toxic) |
| IARC | Group 3 |
| **Other classification systems** | **Hazard class** |
| | |
| | |
| | |
| | |
| | |

**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:**

Wide spectrum insecticide and miticide

**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**

Aspect: colourless crystalline solid
Formula: C8 H10 NO5 PS
Molecular weight: 263.3
Fusion Point : 35-65°C
Boiling Point: 154°C /136 Pa
Steam pressure(20°C): 0.2 mPa
Solubility in water (20°C): 55 mg/L
Kow logP (20°): 3.0
Henry's Law constant: 8,57x10 $^{-3}$ Pa m³ /mol
Soluble in most organic solvents: CH2 CL2 Toluene >200 g/L
Hexane 10-20 g/L
Stability: rapidly hydrolyzed in acid or alkaline environment

Ref.: The Pesticide Manual. Thirteen Edition. CDS Tomlin. 2003 BCPC.

**1.8.2 Description of toxicological properties of the chemical**

Acute Toxicity: Oral
- DL50 rats 14 mg/Kg (WHO)
- DL50 rat 18-50 mg/Kg
- DL50 mice 14.5-19.5 mg/Kg
- DL50 rabbit 420 mg/Kg
- DL50 guinea pigs 1270 mg/Kg
- DL50 dog 90 mg/Kg

Derma
- DL50 rat 63-491 mg/Kg
- DL50 mice: 1200 mg/Kg
- DL50 rabbit: 300 mg/Kg

Inhalation
- CL50 rat 34 mg/m³/4h.
- CL50 mice 120mg/m³/4h

The substance can be absorbed by inhalation, ingestion and through the skin
When contact with skin and eyes occurs can cause burnings

Ref.: Pan-American Health Organization (OPS)
World Health Organization (WHO)

**1.8.3 Description of ecotoxicological properties of the chemical**

Half mobility in soil and hardly bioaccumulative.
Very toxic for aquatic organisms and for animals feeding on them, and also for bees. Moderately harmful for birds.

Acute Toxicity:
- Birds LC50 (5 d) wild duck 1044 mg/Kg
- Fish LC50 (96h) rainbow trout 2.7 mg/L
- Daphnia LC50 (48 h) 0.0073 mg/L
- Algae ErC50 (Scenedesmus subspicatus) 3 mg/L
- Earthworms LC50 40 mg/Kg soil

Toxic for bees
Ref.: The Pesticide Manual.Thirteen Edition. CDS Tomlin. 2003 BCPC.

## PART II: FINAL REGULATORY ACTION

**2. FINAL REGULATORY ACTION**

**2.1 The chemical is:** ❑ **banned** **OR** **X severely restricted**

**2.2 Information specific to the final regulatory action**

**2.2.1 Summary of the final regulatory action**

Because
-the high toxicity for the human been of based-parathion methyl products and, particularly, the high risks for the workers (applicators);
-the high risk for beneficial insects and the extreme toxicity for birds;
-the risk can be significantly decreased by the use of formulations in microcapsules, despite its high toxicity;
-its short half life, its rapid microbial degradation and the limited capacity of bioconcentration, confer some benefits from the environmental aspect;
-for some of the allowed uses of parathion methyl there are no alternative products that meet the conditions of lower toxicity and equality, referred to the effectiveness of the product, and therefore is convenient to maintain the authorization for microcapsules formulations and specific uses;
-all formulations based on this active ingredient, except the microcapsules, are included in the FAO/UNEP PIC Procedure;
Register and application of phytosanitary products based on parathion methyl is prohibited for all agricultural use, except for:

1- microcapsule formulations diluted in water that meet the following conditions: Used only in fruit trees; waiting time 35 days, only terrestrial applications, active ingredient maximum 45% (p/v)

2- Anti ant powder formulations with active ingredient equal or less than 2%

**2.2.2 Reference to the regulatory document**

Resolution of Ministry of Livestock, Agriculture and Fisheries. Montevideo 30 January 2002

| | | |
|---|---|---|
| **2.2.3** | **Date of entry into force of the final regulatory action** | |
| | 30 June 2002 | |

| | | |
|---|---|---|
| **2.3** | **Was the final regulatory action based on a risk or hazard evaluation?** | **X Yes** **❑ No** |
| | **If yes, give information on such evaluation** | |
| | It is based on the inherent properties of parathion methyl-based products. Substance included in the FAO/UNEP PIC Procedure. Because its high toxicity for the human and for beneficial insects and birds, represents a great risk to rural workers, for the rest of the exposed population and the ecosystem in general | |
| | **Reference to the relevant documentation** | |
| | Substance included in the Prior Inform Consent Procedure (FAO/UNEP) | |

| | | |
|---|---|---|
| **2.4** | **Reasons for the final regulatory action** | |
| **2.4.1** | **Is the reason for the final regulatory action relevant to the human health?** | **X Yes** **❑ 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** | |
| | It was adopted considering the high toxicity of such products for the human health and, particularly, the high risk of rural workers applicators | |
| | **Reference to the relevant documentation** | |
| | Substance included in the Prior Inform Consent Procedure (FAO/UNEP) | |
| | **Expected effect of the final regulatory action** | |
| | Restrict and decrease the use of parathion methyl-based products, minimizing the risks for the rural workers and the human health in general | |

| | | |
|---|---|---|
| **2.4.2** | **Is the reason for the final regulatory action relevant to the environment?** | **X Yes** **❑ No** |
| | **If yes, give summary of the known hazards and risks to the environment** | |
| | Because the high toxicity of parathion methyl-based products, their use means a high risk for birds and beneficial insects | |
| | **Reference to the relevant documentation** | |
| | Substance included in the Prior Inform Consent Procedure (FAO/UNEP) | |
| | **Expected effect of the final regulatory action** | |
| | Restrict and decrease the use of parathion methyl-based phytosanitary products, minimizing the risks and harms for the 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** | **❑ 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** | **X Pesticide** |
| | **Formulation(s) and use or uses prohibited by the final regulatory action** | |
| | Prohibited all formulations based on parathion methyl, except microcapsules soluble in water and anticides (powder formulations with active ingredient equal or less than 2%) | |
| | **Formulation(s) and use or uses that remain allowed** | |
| | Microcapsule formulations diluted in water that meet the following conditions: Used only in fruit trees; waiting time 35 days, only terrestrial applications, active ingredient maximum 45% (p/v)<br><br>Anti ant powder formulated with active ingredient equal or less than 2% | |

| **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** |
|---|---|
| | |

| **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 Livestock, Agriculture and Fisheries |
| **Address** | Millán 4703 |
| **Telephone** | +5982 3098410 ext. 103 |
| **Telefax** | |
| **E-mail address** | halmirati@mgap.gub.uy |
| **Designated National Authority** | |
| **Institution** | Ministry of Livestock, Agriculture and Fisheries |
| **Address** | Millán 4703 |
| **Name of person in charge** | Ing. Agr. Humberto Almirati |
| **Position of person in charge** | Director of General Direction of Agricultural Services |
| **Telephone** | +5982 3098410 ext. 103 |
| **Telefax** | |
| **E-mail address** | halmirati@mgap.gub.uy |

**Date, signature of DNA and official seal:** _____