



**MINISTERIO  
DE SALUD**

## HOJA DE ENVIO DE TRAMITE GENERAL



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MINSA-DIGESA-rvaldivia  
Página 1 de 1

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Interesado: DIGESA-HERNANDEZ CAMPANELLA JAVIER ERNESTO  
Asunto: REQUERIMIENTO DE INFORMACION SOBRE ENDOSULFAN (CAS 115-29-7)

Nº	Destinatario (1)	Prio	Ind. (2)	Fecha	Remitente (3)
1	DGSP-CRUZ SANCHEZ EDWARD ALCIDES -DIRECTOR GENERAL	NORM	15	16/12/2008	DIGESA-HERNANDEZ CAMPANELLA JAVIER ERNESTO-DIRECTOR GENERAL
2	ESEN.M. Brads	2	16 DIC. 2008		
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## CLAVE INDICACION DEL MOVIMIENTO

- 01. Aprobación 06. Por Corresponderle 11. Archivar
- 02. Atención 07. Para Conversar 12. Acción Inmediata
- 03. Su Conocimiento 08. Acompañar Antecedente 13. Prepare Contestación
- 04. Opinión 09. Según Solicitado 14. Proyecto Resolución
- 05. Informe y Devolver 10. Según lo coordinado 15. Ver Observación

## CLAVE PRIORIDAD

- (B) Baja
- (I) Inmediata
- (MB) Muy Baja
- (N) Normal
- (U) Urgente

## OBSERVACIONES POR MOVIMIENTO

- 1 REMITO MEMORANDUM N° 2531-2008-DG-DIGESA + 3 FOLIOS

MINISTERIO DE SALUD  
DIRECCION GENERAL  
RECIBIDO  
30 DIC. 2008  
Exped. N°  
Cirma:  
Hora:

DIGESA  
DIRECCION GENERAL

(1) Use Código

(2) Use Clave

(3) Use Iniciales

30 DIC. 2008

IMPORTANTE NO DESGLOSAR ESTA HOJA

MINISTERIO DE SALUD  
Dirección General de Salud Ambiental  
DIGESA

30 DIC 2008 4:20

AREA TRAMITE  
DOCUMENTARIO Y ARCHIVO

Firma:

Hora:

4:35 pm



PERÚ

Ministerio  
de SaludDirección General  
de Salud de las PersonasDECENIO DE LAS PERSONAS CON DISCAPACIDAD EN EL PERU  
"Año de las Cumbres Mundiales en el Perú"**MEMORANDUM N° 5033 2008-DGSP/MINSA**

**A** : Ing. JAVIER HERNANDEZ CAMPANELLA  
Director General  
Dirección General de Salud Ambiental

**ASUNTO** : Requerimiento de Información sobre ENDOSULFAN

**REFERENCIA :** MEMORANDUM N° 2531-2008/DG/DIGESA  
EXPEDIENTE N° 08-116433-001

**FECHA** : 23 DIC 2008



Por medio del presente, me dirijo a usted para saludarle cordialmente y en relación al documento de referencia, informarle que la Dirección General de Salud de las Personas es el órgano técnico normativo en los procesos relacionados a la atención integral, servicios de salud, calidad, gestión sanitaria y actividades de salud mental; y considerando que de acuerdo a las funciones del MINSA que indica que la Dirección General a su cargo, es el órgano técnico normativo en los aspectos relacionados al saneamiento básico, salud ocupacional, higiene alimentaria, zoonosis y protección del ambiente, le informamos que no contamos con información sobre ENDOSULFAN, el cual es un plaguicida organoclorado neurotóxico usado en la agricultura.

Finalmente, le remitimos una información de la búsqueda bibliográfica realizada de un estudio sobre pesticidas en el departamento de San Martín el año 2007.

Sin otro particular me despido de usted.

Atentamente,

Dr. EDWARD CRUZ SANCHEZ  
DIRECTOR GENERAL  
Dirección General de Salud de las Personas



## Epsilon Undergraduate Theses Archive

### Pesticide use in rice cultivation in Tarapoto, Peru

: usage patterns and pesticide residues in water sources

Palm, Britta (2007) *Pesticide use in rice cultivation in Tarapoto, Peru*. Dept. of Environmental Assessment, SLU. Rapport / Sveriges lantbruksuniversitet, Miljöanalys vol. 2007:19.

Full text available as:



PDF

3280 Kb

#### Abstract

A study concerning the use of pesticides in rice cultivation was performed in the Tarapoto-region, department of San Martín, Peru. The department is the second most important rice production in Peru with a large in-put of pesticides and water consumption. Large amounts of pesticides classified by WHO as highly hazardous are used, even those that are not manufactured or recommended for rice. This study was a part of a larger interdisciplinary project. The objectives in this specific study were to identify the usage of pesticides among rice farmers in the study area, and to identify pathways for pesticides by analysing water sources for pesticide residues.

Semi-structured interviews with PRA/RRA tools took place with seven voluntary rice farmers. The aim of the interviews was to understand the socio-economic conditions, found out about rice cultivations practices, the usage patterns of pesticides and to identify suitable water sampling sites.

Twenty-four water samples in total were collected from irrigation canals, surface waters, groundwater, and field waters. The Solid-Phase Extraction (SPE) technique was used, and the water and filter samples were analysed on GC-ECD after extraction, and screened for 23 active ingredients.

According to the interviews, the seven farmers included in the study were handling pesticides in the same way. All farmers sprayed or mixed the pesticides, and washed the backpack sprayer in irrigation canals or surface water. Six of the seven store the pesticides in their living quarters. Five farmers have had symptoms of intoxication and no one used recommended protective equipment. The most commonly used pesticides are Tamaron and Thiodan with the active substances methamidophos and endosulfan respectively.

In the water samples were α- endosulfan, β-endosulfan, endosulfan-sulfate, butachlor, parathion-ethyl, alpha-cypermethrin, DDT-o,p, DDE-p,p, DDD-p,p, methamidophos, carbofuran, and carbosulfan detected. Methamidophos, carbofuran and carbosulfan were detected in all samples in the study, but there concentrations could not be determined due to a contaminated blank sample. The endosulfans (α- and β-) and its degradation product endosulfan-sulfate was the second most detected compound. Butachlor was mainly detected in surface waters and alpha-cypermethrin was only detected in a special case from a field right after spraying with the substance. Parathion-ethyl was detected in the stream of Mishquiyacu and in an irrigation canal. The results from the study are fairly similar where no concentrations reach 1 µg/l, except for butachlor and alpha-cypermethrin.

Pesticides bound to particle from the filters were detected despite the low content of particles. Besides methamidophos, carbofuran, carbosulfan, were also α- endosulfan, β-endosulfan, endosulfan-sulfate, alpha-cypermethrin and DDT-p,p, detected.

The results show that all the farmers in the study are using the pesticides in a manner that is both unsafe and inadequate. There is no correlation between the numbers of applications per harvest and concentrations detected in the study. There are neither correlation between from which lateral the fields are irrigated, the allocation of the field and the results. The in- and out

flow of water in the irrigation system is fairly unpredictable, and the area has problem with water scarcity.

**Keywords:** Pesticide residues, water sources, rice, Tarapoto, Peru, SPE, GC-ECD, PRA/RRA, usage patterns, Tamaron, Thiodan, methamidophos, carbofuran, carbosulfan, endosulfan, alpha-cypermethrin, DDT, butachlor, parathion-ethyl, Residuos de plaguicidas, fuentes de agua, arroz, Tarapoto, Perú, EFS, GC-ECD, DRP/VRR, manejo de plaguicidas, Tamaron, Thiodan, metamidofos, carbofuran, carbosulfan, endosulfan, alfa-cipermetrina, DDT, butacloro, parathion-ethyl

**Faculty:** Faculty of Natural Resources and Agricultural Sciences

**Series.:** Rapport / Sveriges lantbruksuniversitet, Miljöanalys

**Programme:** MSc Natural Resources, 160 credits

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**Deposited By:** Palm, Britta

**Deposited On:** 30 October 2007

<http://www.essays.se/essay/6184bda466/>



PERÚ

Ministerio  
de SaludDirección General  
de Salud Ambiental"Decenio de las Personas con Discapacidad en el Perú"  
"Año de las Cumbres Mundiales en el Perú"**MEMORANDUM N° 2531 -2008/DG/DIGESA**

A : Doctor  
**EDGARD ALCIDES CRUZ SÁNCHEZ**  
Director General  
**DIRECCIÓN GENERAL DE SALUD DE LAS PERSONAS**

Asunto : Requerimiento de información sobre ENDOSULFAN

Referencia : Carta del Convenio de Estocolmo del 28 de octubre del 2008.

Fecha : **16 DIC 2008**

Me dirijo a usted en relación al documento de la referencia, para informarle que la DIGESA como Punto Focal Nacional del Convenio de Estocolmo participó de la Cuarta Reunión del Comité de Examen de los Contaminantes Orgánicos Persistentes del Convenio de Estocolmo, celebrado del 13 al 17 de Octubre del 2008 en Ginebra, Suiza; como resultado de esta participación se invita al Perú a presentar información sobre el **ENDOSULFAN (CAS 115-29-7)**.

La información a presentar es la prevista en el Anexo E del texto del Convenio para uso del Comité de Examen, la cual deberá estar suficientemente detallada para que el Comité pueda servirse de ella en sus consideraciones científicas para la preparación del Perfil de Riesgo del citado producto. Se adjunta cuestionario.

El desarrollo de la misma deberá realizarse en función a su competencia y ser remitida a la brevedad posible a fin de cumplir con las fechas establecidas por el Convenio.

Atentamente,



JEHC/VMQ/vja



## Cuestionario sobre el ENDOSULFAN

### **(a) Fuentes:**

1. Indique las unidades de los datos.
2. Datos históricos y de tendencias en cuanto a producción y usos.
3. Información relativa a importaciones y exportaciones.

### **(b) Evaluación del peligro para los puntos finales que sean motivo de preocupación:**

1. Solo se debe proporcionar información acerca de los puntos finales motivo de mayor preocupación.
2. Serán de particular utilidad los datos sobre toxicidad y ecotoxicidad en humanos.

### **(c) Destino ambiental:**

1. Información diversa, en particular datos de modelación del transporte ambiental de grandes distancias.

### **(d) Datos de vigilancia:**

1. De ser posible, suministrar datos de vigilancia adicionales indicando la calidad de los mismos o su grado de fiabilidad.
2. Datos de tendencia.
3. Otros datos relativos a los criterios del Anexo D, sobre todo si se refieren a persistencia, bioacumulación y transporte ambiental de grandes distancias, así como a exposición.  
Sírvase comparar con la evaluación del Anexo D realizada por el Comité (<http://www.popsint/poprc/>)
4. Datos de vigilancia ambiental y exposición.

### **(e) Exposición en áreas locales:**

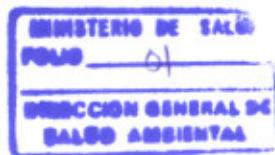
1. Datos sobre áreas alejadas de la fuente del producto químico.
2. Datos relativos a la salud humana y la flora y fauna silvestre.
3. Datos experimentales o de modelación que identifique posible transporte de grandes distancias.
4. Datos de exposición ocupacional.

### **(f) Evaluaciones nacionales e internacionales de riesgo, etc.:**

1. Justificación (información de evaluación) de la reglamentación de sustancias químicas tóxicas.
2. Evaluaciones nacionales e internacionales de riesgos elaborados por gobiernos, organizaciones intergubernamentales, organizaciones de integración económica regional y organismos no gubernamentales.

### **(g) Régimen del producto químico en los convenios internacionales:**

1. Solo debería darse información de instrumentos internacionales que no sean los más conocidos (ver documento UNEP/POPS/POPRC.1/INF/10).





UNITED NATIONS ENVIRONMENT PROGRAMME

## Stockholm Convention on Persistent Organic Pollutants

Secretaryat of the Stockholm Convention  
International Environment House 1  
11-13, chemin des Anémones  
CH-1219 Châtelaine – Geneva  
Switzerland



Telephone: +41 22 917 87 29  
Facsimile: +41 22 917 80 98  
E-mail: [sac@pops.int](mailto:sac@pops.int)  
[www.pops.int](http://www.pops.int)

24 October 2008

**Subject: Invitation to submit information specified in Annex E of the Stockholm Convention to the POPs Review Committee on Endosulfan**

The fourth meeting of the Stockholm Convention on Persistent Organic Pollutants Review Committee took place on 13-17 October 2008 in Geneva. The report of the meeting will soon be available at the Convention web site: <http://www.pops.int/poprc/>.

The Committee had before it a proposal submitted by the European Community and its Member States that are Parties to the Convention to list Endosulfan under Annexes A, B and/or C of the Convention.

In accordance with the procedure laid down in Article 8 of the Convention, the Committee examined the proposals and applied the screening criteria in Annex D of the Convention in a flexible and transparent way. The Committee decided that it was satisfied that the screening criteria had been fulfilled for Endosulfan and that further work should therefore be undertaken in accordance with the provisions of the Convention.

The next step in the process is to prepare a risk profile for Endosulfan, as noted in Annex E, to "evaluate whether the chemical is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and/or environmental effects, such that global action is warranted". The risk profile shall further evaluate and elaborate on the information referred to in Annex D and include, as far as possible, the information listed in Annex E. To assist this task, an outline for risk profiles developed by the Committee is available at the Convention's website. As provided for by the Convention, the risk profile will take into account information to be submitted by Parties and observers.

**What information is required?**

You are invited to submit information specified in Annex E according to the explanatory note provided in this letter. The initial proposal for endosulfan, the verification of this proposal by the Secretariat as well as the Committee's decision on Annex D screening are available at the Convention's website: <http://www.pops.int/poprc/>.

To: Stockholm Convention Official Contact Points  
Stockholm Convention National Focal Points

cc: Representatives of the Permanent Missions to the United Nations in Geneva

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Secretariat of the Stockholm Convention on Persistent Organic Pollutants

## Annex

### Explanatory notes to the form for submission of information specified in Annex E for use by the POPs Review Committee

*In filling in the form please provide, where possible and relevant, information of sufficient detail to inform scientific considerations of the Committee in preparing the risk profile, emphasizing information on study methods, tissue concentrations for comparative purposes, and citations, including, if possible, original copies of papers not readily available in the public literature. If the information is not peer-reviewed, it may still be useful for the Committee.*

#### (a) Sources

1. Provide units for the data.
2. Historical data and trend data regarding production and uses.
3. Information regarding imports and exports.

#### (b) Hazard assessment for the endpoints of concern

1. Only information regarding the most important endpoints of concern need to be provided.
2. Data on human toxicity and ecotoxicity would be particularly helpful.

#### (c) Environmental fate

1. Other information, including long-range environmental transport modelling data.

#### (d) Monitoring data

1. If possible, provide additional monitoring data with indication of the data quality or the level of confidence.
2. Trend data.
3. Additional data related to the criteria in Annex D, especially where relevant to persistence, bio-accumulation and long-range environmental transport, as well as exposure. Please compare with the Annex D evaluation by the Committee (<http://www.pops.int/poprc/>)
4. Environmental monitoring data and exposure data.

#### (e) Exposure in local areas

1. Data regarding areas remote from sources of the chemical.
2. Data related to human health as well as wildlife.
3. Experimental or modelling data indicating possible long-range transport.
4. Occupational exposure data.

#### (f) National and international risk evaluations etc.

1. Rationale (assessment information) for regulation on toxic chemicals.
2. National and international risk evaluations prepared by Governments, inter-governmental organizations, regional economic integration organizations and non-governmental organizations

#### (g) Status of the chemical under international conventions

1. Only information regarding instruments other than the most well-known ones should be submitted (see document UNEP/POPS/POPRC.1/INF/10).

*Additional information may also be submitted that is relevant for the evaluation of the chemical by the Committee but which does not fall within the above categories.*

