



EUROPEAN COMMISSION  
HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL

Directorate E – Food Safety: plant health, animal health and welfare, international questions  
**E1 - Plant health**

Thiram  
6507/VI/99-Final  
27 June 2003

### Review report for the active substance **thiram**

Finalised in the Standing Committee on the Food Chain and Animal Health at its meeting on 4 July 2003 in view of the inclusion of thiram in Annex I of Directive 91/414/EEC

#### **1. Procedure followed for the re-evaluation process**

This review report has been established as a result of the re-evaluation of thiram, made in the context of the work programme for review of existing active substances provided for in Article 8(2) of Directive 91/414/EEC concerning the placing of plant protection products on the market, with a view to the possible inclusion of this substance in Annex I to the Directive.

Commission Regulation (EEC) No 3600/92<sup>(1)</sup> laying down the detailed rules for the implementation of the first stage of the programme of work referred to in Article 8(2) of Council Directive 91/414/EEC, as last amended by Regulation (EC) No 2266/2000<sup>(2)</sup>, has laid down the detailed rules on the procedure according to which the re-evaluation has to be carried out. Thiram is one of the 90 existing active substances covered by this Regulation.

In accordance with the provisions of Article 4 of Regulation (EEC) No 3600/92, JCS International on 28 June 1993, Uniroyal Chemical Company, Inc. on 15 July 1993, Bayer AG on 21 July 1993, ACI International on 30 July 1993, UCB SA. on 20 July 1993, FMC-foret S.A. on 23 July 1993; Calliope S.A. on 21 July 1993, and B.V. Luxan on 21 July 1993 notified to the Commission of their wish to secure the inclusion of the active substance thiram in Annex I to the Directive. A thiram task force, comprising UCB SA and Uniroyal Chemical Company Ltd, now Crompton Europe Ltd was formed.

In accordance with the provisions of Article 5 of Regulation (EEC) No 3600/92, the Commission, by its Regulation (EEC) No 933/94<sup>(3)</sup>, as last amended by Regulation (EC) No 2230/95<sup>(4)</sup>, designated Belgium as rapporteur Member State to carry out the assessment of thiram on the basis of the dossiers submitted by the notifiers. In the same Regulation, the Commission specified furthermore the deadline for the notifiers with regard to the submission to the rapporteur Member States of the dossiers required under Article 6(2) of Regulation (EEC) No 3600/92, as well as for other parties

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<sup>1</sup> OJ No L 366, 15.12.1992, p.10.

<sup>2</sup> OJ No L 259, 13.10.2000, p.27.

<sup>3</sup> OJ No L 107, 28.04.1994, p.8.

<sup>4</sup> OJ No L 225, 22.09.1995, p.1.

with regard to further technical and scientific information; for thiram this deadline was 31 October 1995.

Only UCB-Uniroyal on behalf of the thiram task force, submitted in time a dossier to the rapporteur Member State which did not contain substantial data gaps, taking into account the supported uses and therefore was considered to be the main data submitter. The seed treatment uses are supported by Uniroyal and UCB, the foliar uses are only supported by UCB.

In accordance with the provisions of Article 7(1) of Regulation (EEC) No 3600/92, Belgium submitted on 15 January 1998 to the Commission the report of its examination, hereafter referred to as the draft assessment report, including, as required, a recommendation concerning the possible inclusion of thiram in Annex I to the Directive. Moreover, in accordance with the same provisions, the Commission and the Member States received also the summary dossier on thiram from UCB-Uniroyal, on 21 March 1999.

In accordance with the provisions of Article 7(3) of Regulation (EEC) No 3600/92, the Commission forwarded for consultation the draft assessment report to all the Member States as well as to UCB-Uniroyal being the designated representative of the thiram task force, on 25 March 1998.

The Commission organised an intensive consultation of technical experts from a certain number of Member States, to review the draft assessment report and the comments received thereon (peer review), in particular on each of the following disciplines:

- identity and physical /chemical properties ;
- fate and behaviour in the environment ;
- ecotoxicology ;
- mammalian toxicology ;
- residues and analytical methods ;
- regulatory questions.

The meetings for this consultation were organised on behalf of the Commission by the Pesticide Safety Directorate (PSD) in York, United Kingdom, from March to October 1999.

The report of the peer review (i.e. full report) was circulated, for further consultation, to Member States on 17 March 2000 and the main data submitter on 21 March 2000 for comments and further clarification.

In accordance with the provisions of Article 6(4) of Directive 91/414/EEC concerning consultation in the light of a possible unfavourable decision for the active substance the Commission organised a tripartite meeting with the main data submitter and the rapporteur Member State for this active substance on 22 June 2000.

According to Commission Decision of 14 February 2001 concerning the decision on the possible inclusion of certain active substances into Annex I to Council Directive 91/414/EEC<sup>5</sup> a deadline of 31.12.2001 for submission of further studies was established.

In accordance with the provisions of Article 7(3) of Regulation (EEC) No 3600/92, the dossier, the draft assessment report, the peer review report (i.e. full report) and the comments and clarifications

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<sup>5</sup> OJ No L 49, 20.02.2001, p.13.

on the remaining issues, received after the peer review were referred to the Standing Committee on the Food Chain and Animal Health, and specialised working groups of this Committee, for final examination, with participation of experts from the 15 Member States. This final examination took place from October 2000 to July 2003, and was finalised in the meeting of the Standing Committee on 4 July 2003.

The review did not reveal any open questions or concerns which would have required a consultation of the Scientific Committee on Plants.

The present review report contains the conclusions of the final examination; given the importance of the draft assessment report, the peer review report (i.e. full report) and the comments and clarifications submitted after the peer review as basic information for the final examination process, these documents are considered respectively as background documents A, B and C to this review report and are part of it.

## **2. Purposes of this review report**

This review report, including the background documents and appendices thereto, has been developed and finalised in support of the Directive 2003/81/EC<sup>6</sup> concerning the inclusion of thiram in Annex I to Directive 91/414/EEC, and to assist the Member States in decisions on individual plant protection products containing thiram they have to take in accordance with the provisions of that Directive, and in particular the provisions of article 4(1) and the uniform principles laid down in Annex VI.

This review report provides also for the evaluation required under Section A.2.(b) of the above mentioned uniform principles, as well as under several specific sections of part B of these principles. In these sections it is provided that Member States, in evaluating applications and granting authorisations, shall take into account the information concerning the active substance in Annex II of the directive, submitted for the purpose of inclusion of the active substance in Annex I, as well as the result of the evaluation of those data.

In accordance with the provisions of Article 7(6) of Regulation (EEC) No 3600/92, Member States will keep available or make available this review report for consultation by any interested parties or will make it available to them on their specific request. Moreover the Commission will send a copy of this review report (not including the background documents) to all operators having notified for this active substance under Article 4(1) of this Regulation.

The information in this review report is, at least partly, based on information which is confidential and/or protected under the provisions of Directive 91/414/EEC. It is therefore recommended that this review report would not be accepted to support any registration outside the context of Directive 91/414/EEC, e.g. in third countries, for which the applicant has not demonstrated to have regulatory access to the information on which this review report is based.

## **3. Overall conclusion in the context of Directive 91/414/EEC**

The overall conclusion from the evaluation is that it may be expected that plant protection products containing thiram will fulfil the safety requirements laid down in Article 5(1)(a) and (b) of Directive

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<sup>6</sup> OJ No L 224, 06.09.2003, p.29

91/414/EEC. This conclusion is however subject to compliance with the particular requirements in sections 4, 5, 6 and 7 of this report, as well as to the implementation of the provisions of Article 4(1) and the uniform principles laid down in Annex VI of Directive 91/414/EEC, for each thiram containing plant protection product for which Member States will grant or review the authorisation.

Furthermore, these conclusions were reached within the framework of the uses which were proposed and supported by the main data submitter and mentioned in the list of uses supported by available data (attached as Appendix IV to this Review Report).

Extension of the use pattern beyond those described above will require an evaluation at Member State level in order to establish whether the proposed extensions of use can satisfy the requirements of Article 4(1) and of the uniform principles laid down in Annex VI of Directive 91/414/EEC.

With particular regard to residues, the review has established that the residues arising from the proposed uses, consequent on application consistent with good plant protection practice, have no harmful effects on human or animal health. The Theoretical Maximum Daily Intake (TMDI; excluding water and products of animal origin) for a 60 kg adult is 89% of the Acceptable Daily Intake (ADI), based on the FAO/WHO European Diet (August 1994). Additional intake from water and products of animal origin are not expected to give rise to intake problems.

The review has identified several acceptable exposure scenarios for operators, workers and bystanders, which require however to be confirmed for each plant protection product in accordance with the relevant sections of the above mentioned uniform principles.

The review has also concluded that under the proposed and supported conditions of use there are no unacceptable effects on the environment, as provided for in Article 4 (1) (b) (iv) and (v) of Directive 91/414/EEC, provided that certain conditions are taken into account as detailed in section 6 of this report.

#### **4. Identity and Physical/chemical properties**

The main identity and the physical/chemical properties of thiram are given in Appendix I.

The active substance shall comply with the FAO specification and there seem not to be reasons for deviating from that specification; the FAO specification is given in Appendix I of this report.

The review has established that for the active substance notified by the main data submitter, the task force UCB-Uniroyal, none of the manufacturing impurities considered are, on the basis of information currently available, of toxicological or environmental concern.

In accordance with the provisions of Article 13(5) of Directive 91/414/EEC, Belgium is also satisfied, on the basis of the information currently available, that the substances notified by the other data submitters (FMC-foret) do not, in the meaning of Article 13(2) and (5) of the Directive, differ significantly in degree of purity and nature of impurities from the composition registered in the dossier submitted by the main data submitter.

## **5. Endpoints and related information**

In order to facilitate Member States, in granting or reviewing authorisations, to apply adequately the provisions of Article 4(1) of Directive 91/414/EEC and the uniform principles laid down in Annex VI of that Directive, the most important endpoints were identified during the re-evaluation process. These endpoints are listed in Appendix II.

## **6. Particular conditions to be taken into account on short term basis by Member States in relation to the granting of authorisations of plant protection products containing thiram**

On the basis of the proposed and supported uses (as listed in Appendix IV), the following particular issues have been identified as requiring particular and short term attention from all Member States, in the framework of any authorisations to be granted, varied or withdrawn, as appropriate:

- Member States should pay particular attention to the protection of aquatic organism. Risk mitigation measures should be applied, where appropriate.
- Member States should pay particular attention to the protection of small mammals and birds when the substance is used as a seed treatment in spring uses. Risk mitigation measures should be applied, where appropriate.

## **7. List of studies to be generated**

No further studies were identified which were at this stage considered necessary in relation to the inclusion of thiram in Annex I under the current inclusion conditions.

Some endpoints however may require the generation or submission of additional studies to be submitted to the Member States in order to ensure authorisations for use under certain conditions. This may particularly be the case for:

- processing studies on the intended crops (with special attention to metabolite M1).

## **8. Information on studies with claimed data protection**

For information of any interested parties, Appendix III gives information about the studies for which the main data submitter has claimed data protection and which during the re-evaluation process were considered as essential with a view to annex I inclusion. This information is only given to facilitate the operation of the provisions of Article 13 of Directive 91/414/EEC in the Member States. It is based on the best information available to the Commission services at the time this review report was prepared; but it does not prejudice any rights or obligations of Member States or operators with regard to its uses in the implementation of the provisions of Article 13 of the Directive 91/414/EEC neither does it commit the Commission.

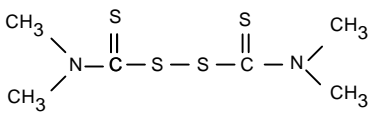
## **9. Updating of this review report**

The technical information in this report may require to be updated from time to time in order to take account of technical and scientific developments as well as of the results of the examination of any information referred to the Commission in the framework of Articles 7, 10 or 11 of Directive 91/414/EEC. Such adaptations will be examined and finalised in the Standing Committee on the Food Chain and Animal Health, in connection with any amendment of the inclusion conditions for thiram in Annex I of the Directive.

# APPENDIX I

## Identity, physical and chemical properties

### THIRAM

<b>Common name (ISO)</b>	Thiram
<b>Chemical name (IUPAC)</b>	tetramethylthiuram disulfide or bis (dimethylthiocarbamoyl)-disulfide
<b>Chemical name (CA)</b>	tetramethylthioperoxydicarbonic diamide
<b>CIPAC No</b>	24
<b>CAS No</b>	137-26-8
<b>EEC No</b>	205-286-2
<b>FAO SPECIFICATION</b>	24/1/S/18 (1979)
<b>Minimum purity</b>	960 g/kg (FAO specification)
<b>Molecular formula</b>	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> S <sub>4</sub>
<b>Molecular mass</b>	240.4
<b>Structural formula</b>	

<b>Melting point</b>	144 - 146°C
<b>Boiling point</b>	not applicable (not a low melting substance)
<b>Appearance</b>	purified a.s.: white fine crystals with no detectable odour TC: slightly off-white beige powder with no detectable odour
<b>Relative density</b>	1.36 g/cm <sup>3</sup> at 20°C (97.8% pure)
<b>Vapour pressure</b>	2.3 x 10 <sup>-3</sup> Pa at 25°C
<b>Henry's law constant</b>	3.3 x 10 <sup>-2</sup> Pa.m <sup>3</sup> .mol <sup>-1</sup> at 25°C
<b>Solubility in water</b>	0.0165 g/l at 20°C in pure water no effect of pH
<b>Solubility in organic solvents</b>	hexane: 0.093 g/l at 20°C xylene: 8.3 g/l at 20°C methanol: 1.91 g/l at 20°C dichloromethane: 199 g/l at 25°C acetone: 69.7 g/l at 25°C ethylacetate: 13 g/l at 22°C
<b>Partition co-efficient (log P<sub>ow</sub>)</b>	log P <sub>ow</sub> = 1.73 (distilled water) no effect of pH
<b>Hydrolytic stability (DT<sub>50</sub>)</b>	pH 5: DT <sub>50</sub> = 68.5 d at 25°C pH 7: DT <sub>50</sub> = 3.5 d at 25°C pH 9: DT <sub>50</sub> = < 1 d at 25°C
<b>Dissociation constant</b>	pK <sub>a</sub> (BH <sup>+</sup> ) = 8.19
<b>Quantum yield of direct photo-transformation in water at λ &gt;290 nm</b>	φ = 2.97 x 10 <sup>-3</sup>
<b>Flammability</b>	not highly flammable not auto-flammable
<b>Explosive properties</b>	not explosive
<b>UV/VIS absorption (max.)</b>	214 nm: ε = 21884 L.mol <sup>-1</sup> .cm <sup>-1</sup> 278 nm: ε = 11342 L.mol <sup>-1</sup> .cm <sup>-1</sup> (neutral conditions)
<b>Photostability in water (DT<sub>50</sub>)</b>	DT <sub>50</sub> = 8.8 h at pH 5 and 25°C

## APPENDIX II

### END POINTS AND RELATED INFORMATION

#### THIRAM

## 1 Toxicology and metabolism

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

Rate and extent of absorption:	83-87% within 96 h
Distribution:	initially widely distributed ; highest residues in blood (1.3%) and liver (1.6%) after 7 days
Potential for accumulation:	no evidence of accumulation
Rate and extent of excretion:	85-90% within 96 h: 40% exhaled ; 33% in urine and 3.2% in feces
Toxicologically significant compounds:	Parent compound and metabolites Quite similar metabolism in livestock and plants.
Metabolism in animals:	>80 % metabolized reduction of disulfide bound leading to dimethyl dithiocarbamic acid further oxidized mainly to dimethyl-thiosulfenic acid after high dose, or to thioxothiazolidine carboxylic acid after low dose and exhaled in air as CSO, CS2 and CO2 probably.

### Acute toxicity

Rat LD <sub>50</sub> oral:	male = 3700 mg/kg bw female = 1800 mg/kg bw
Rat LD <sub>50</sub> dermal:	> 2000 mg/kg bw
Rat LC <sub>50</sub> inhalation:	Male > 5.04 mg/l female = 3.46 mg/l
Skin irritation:	non irritant
Eye irritation:	irritant
Skin sensitization (test method used and result):	sensitizer (Split Adjuvant Test) Supporting evidence for humans

### Short term toxicity

Target / critical effect:	Liver (dog) Non glandular stomach (rat)
Lowest relevant oral NOAEL / NOEL:	Dog, 90 day: 75 ppm (2 mg/kg bw/d)
Lowest relevant dermal NOAEL / NOEL:	Rabbit, 21 days: 300 mg/kg bw/d (systemic)

Lowest relevant inhalation NOAEL / NOEL:

no data, not necessary ( at Member state level)

## Genotoxicity

positive Ames test.  
Negative results in *in vivo* mammalian studies.  
Thiram is not considered a genotoxin of relevance for humans.

## Long term toxicity and carcinogenicity

Target / critical effect:

Liver: C-cell hyperplasia and reduced LH surge in rats  
Retina in mice and dogs

Lowest relevant NOAEL:

Rat, 104 week study , 30 ppm = 1.5mg/kg bw/d

Carcinogenicity:

Increased incidence of only benign liver and C-cell adenoma in target organs above MTD.  
No need for classification

## Reproductive toxicity

Target / critical effect - Reproduction:

Pup body weight reduction at maternal toxic doses

Lowest relevant reproductive NOAEL / NOEL:

180 ppm (9 mg/kg bw/d)

Target / critical effect - Developmental toxicity:

developmental delay (rat)

Lowest relevant developmental NOAEL / NOEL:

7.5 mg/kg bw/d

## Delayed neurotoxicity

Acute and subchronic neurotoxic effects (FOB parameters)  
NOAEL acute neurotoxicity = 60 mg/kg bw/d  
NOAEL subchronic = 1.5 mg/kg bw/d

## Other toxicological studies

liver enzyme induction, at high doses.

## Medical data

Skin irritation is seen sporadically.  
Sensitizer , inhibits alcohol metabolism.

## Summary

ADI:

Value	Study	Safety factor
0.01 mg/kg bm/d	2 year rat supported by the findings in dogs	100

AOEL systemic:

0.02 mg/kg bm/d	90 day dog, supported by the 1 year findings	100
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AOEL inhalation:

Not applicable. Use systemic value	-	-
Not applicable. Use systemic value	-	-
0.6 mg/kg bm/d	Acute neurotoxicity rat	100

AOEL dermal:

ARfD (acute reference dose):

**Dermal absorption**

Default value of 10 %

## 2 Fate and behaviour in the environment

### 2.1 Fate and behaviour in soil

#### Route of degradation

##### Aerobic:

Mineralization after 100 days:

65.9% (day 84)

Non-extractable residues after 100 days:

36.1% (day 84)

Major metabolites above 10 % of applied active substance: name and/or code % of applied rate (range and maximum)

N,N dimethyl carbamosulfonic acid (DMCS) found at max. rate of 10.23% at day 16

#### Supplemental studies

##### Anaerobic:

Not submitted

##### Soil photolysis:

DT<sub>50</sub> (12 h light/12 h dark) = 3.7 d  
DT<sub>50</sub> (in the dark) = 15.9 d

##### Remarks:

None

#### Rate of degradation

##### Laboratory studies

DT<sub>50lab</sub> (20 °C, aerobic):

DT<sub>50lab</sub> (a.s., 20°C, aerobic): median 4.6 d (4 soils)

DT<sub>50lab</sub> (DMCS, 20°C, aerobic): median 37.6 d (3 soils)

DT<sub>90lab</sub> (20 °C, aerobic):

DT<sub>90lab</sub> (a.s., 20°C, aerobic): median 15.3 d (4 soils)

DT<sub>90lab</sub> (DMCS, 20°C, aerobic): median 124.8 d (3 soils)

DT<sub>50lab</sub> (10 °C, aerobic):

DT<sub>50lab</sub> (a.s., 10°C, aerobic): 9.83 d

DT<sub>50lab</sub> (DMCS, 10°C, aerobic): 38.7 d

DT<sub>50lab</sub> (20 °C, anaerobic):

DT<sub>50lab</sub> (20°C, anaerobic): Not submitted, not required

##### Field studies (country or region)

DT<sub>50f</sub> from soil dissipation studies:

DT<sub>50f</sub>: No studies performed

DT<sub>90f</sub> from soil dissipation studies:

DT<sub>90f</sub>: No studies performed

Soil accumulation studies:

Not required

Soil residue studies:

Not required

**Remarks:**

e.g. effect of soil pH on degradation rate

None
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## Adsorption/desorption

$K_f / K_{oc}$ :

$K_d$ :

pH dependence:

<p><math>K_f</math> a.s. = 54.10-263.14 l/kg; median = 108 l/kg (4 soils)</p> <p><math>K_{oc}</math> a.s. = 2245-24526 l/kg; median = 9629 l/kg (4 soils)</p> <p><math>K_{oc}</math> DMCS = 33.45 l/kg (by calculation)</p> <p>No</p>
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## Mobility

### Laboratory studies:

Column leaching:

Aged residue leaching:

No studies performed
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No studies performed
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### Field studies:

Lysimeter/Field leaching studies:

No studies performed
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### Remarks:

None
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## 2.2 Fate and behaviour in water

### Abiotic degradation

Hydrolytic degradation:

pH 5, 25°C, a.s.: 68.5 d pH 7, 25°C, a.s.: 3.5 d pH 9, 25°C, a.s.: 6.9 h
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Major metabolites:

at pH 5, 7, 9 CS <sub>2</sub> is the major degradation product, volatile
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Photolytic degradation:

pH5, 25°C, a.s.: 8.8 h
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Major metabolites:

CS <sub>2</sub> is the major degradation product, volatile
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### Biological degradation

Readily biodegradable:

No, no study submitted
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Water/sediment study:

DT<sub>50</sub> water:DT<sub>90</sub> water:DT<sub>50</sub> whole system:DT<sub>90</sub> whole system:

DT water = DT whole system
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31.78-46.07 h
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105.57-153.03 h
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Distribution in water / sediment systems  
(active substance)

a.s. was only detected in the water phase The a.s. is not found in the sediment.
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Distribution in water / sediment systems  
(metabolites)

All the metabolites (CS <sub>2</sub> , dimethyldithiocarbamic acid methyl ester, unknowns) were detected in the water phase
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Accumulation in water and/or sediment:

No accumulation in water and/or sediment
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### Degradation in the saturated zone

Remarks:

Not relevant
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## 2.3 Fate and behaviour in air

### Volatility

Vapour pressure:

2.3 10 <sup>-3</sup> Pa at 25°C
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Henry's law constant:

3.3 10 <sup>-2</sup> Pa.m <sup>3</sup> .mol <sup>-1</sup> at 25°C
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### Photolytic degradation

Direct photolysis in air:

Not required
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Photochemical oxidative degradation in air

DT <sub>50</sub> 21.3 min
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DT<sub>50</sub>:

Volatilisation:

from plant surfaces: Not required from soil: Thiram is slightly volatile (vap pressure = 2.3 10E-3 Pa at 25°C)
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Remarks:

None
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### 3 Ecotoxicology

#### Terrestrial Vertebrates

Acute toxicity to mammals:

Acute toxicity to birds:

Dietary toxicity to birds:

Reproductive toxicity to birds:

~~Short term oral toxicity to mammals~~  
reproductive toxicity to mammals:

LD50 rat = 1800 mg a.s./kg bw
LD50 > 2000 mg a.s./kg bw
LC50 > 4423 mg a.s./kg food (equivalent to 947 mg a.s./kg bw/d)
NOEC = 500 mg a.s./kg food (equivalent to 37.5 mg a.s./kg bw/d)
Parental NOEL (2 gener., rat) = 30 mg a.s./kg food (equivalent to 1.5 mg a.s./kg bw/d) Reprod + develop NOEL (2 gener., rat) > 180 mg a.s./kg food (equivalent to > 9 mg a.s./kg bw/d)
Foetal toxicity (terato, rat, 10 days exposure) = 15 mg a.s./kg bw/d

#### Aquatic Organisms

Acute toxicity fish:

Long term toxicity fish:

Bioaccumulation fish:

Acute toxicity invertebrate:

Chronic toxicity invertebrate:

Acute toxicity algae:

Chronic toxicity sediment dwelling organism:

Acute toxicity aquatic plants:

Higher tier studies:

Cyprinodon variegatus: 96 h, LC50: 0.54 mg a.s./l Oncorhynchus mykiss: 96 h, LC50: 0.046 mg a.s./l Pimephales promelas: 96 h, LC50: 0.27 mg a.s./l Lepomis macrochirus: 96 h, LC50: 0.13 mg a.s./l Cyprinus carpio: 96 h, LC50: 0.200 mg 80WG/l
Oncorhynchus mykiss: 42 d, 4 appl., in sediment/water system, NOEC(growth rate): 0.012 mg 80WG/l Oncorhynchus mykiss: 96 h prolonged up to 11 d., in sediment/water syst, LC50: 0.089 mg 80WG/l Oncorhynchus mykiss: 60 d, EC50: 0.00064 mg a.s./l
Not required, log $P_{ow}$ = 1.73
Daphnia magna: 48 h, EC50: 0.011 mg a.s./l
Daphnia magna: 21 d, LC50: 0.008 mg a.s./l
Selenastrum capricornutum: 120 h, EC50: 0.065 mg a.s./l
Covered by the mesocosm study: chironomus larvae were not affected up to concentrations of 1000 µg a.s./l
Not required
Aquatic invertebrates and algae: outdoor

mesocosm, series of concentrations, with several applications mimicking foliar use (orchard/vineyard/field) EAC: 0.010 mg a.s./l NOEC = 0.001 mg a.s./l
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## Honeybees

Acute oral toxicity:

LD50 &gt; 100 µg a.s./bee

Acute contact toxicity:

LD50 &gt; 100 µg a.s./bee

## Other arthropod species

*Test species*

Laboratory tests

*Aleochara bilineata (adults)*

*Poecilus cupreus (adults)*

*Aleochara bilineata (adults)*

*Poecilus cupreus (adults)*

*Chrysoperla carnea (larvae)*

*Aphidius rhopalosiphi (adults)*

*Coccinella septempunctata (larvae)*

<i>Test species</i>	Test Substance	Dose	Endpoint	% Effect
<i>Aleochara bilineata (adults)</i>	Vitavax 200 FF	400 ml formulation/100 kg seeds	Parasitism efficiency	21.5 %
<i>Poecilus cupreus (adults)</i>	Vitavax 200 FF	400 ml formulation /100 kg seeds	Mortality	0 %
<i>Aleochara bilineata (adults)</i>	Aatiram	300 g formulation /100 kg seeds	Parasitism efficiency	28.3 %
<i>Poecilus cupreus (adults)</i>	Aatiram	300 g formulation /100 kg seeds	Mortality	0 %
<i>Chrysoperla carnea (larvae)</i>	Thiram 80WG	3kg formulation /ha	Mortality	87 %
		6 kg formulation /ha	Mortality	95 %
<i>Aphidius rhopalosiphi (adults)</i>	Thiram 80WG	3kg formulation /ha	Mortality	0 %
		6 kg formulation /ha	Mortality	7.69 %
		3kg formulation /ha	Reproduction	52 %
		6 kg formulation /ha	Reproduction	55 %
<i>Coccinella septempunctata (larvae)</i>	Thiram 80WG	3kg formulation /ha 6 kg formulation /ha	Mortality	89 %

		formulation /ha	Mortality	80 %
<i>Aphidius rhopalosiphi</i> (adults)	Thiram 80WG	2X 0.28 and 2X0.15 kg a.s./ha	Mortality	0%
		4X 1.92 kg a.s./ha	Mortality	2.56 %
		2X 0.28 and 2X0.15 kg a.s./ha	Reproduction	21 %
		4X 1.92 kg a.s./ha	Reproduction	16 %
<i>Coccinella septempunctata</i> (larvae)	Thiram 80WG	2X 0.28 and 2X0.15 kg a.s./ha	Mortality	16.33 %
		4X 1.92 kg a.s./ha	Mortality	33.36 %
		2X 0.28 and 2X0.15 kg a.s./ha	Reproduction	0 %
		4X 1.92 kg a.s./ha	Reproduction	0 %
<i>Chrysoperla carnea</i> (larvae)	Thiram 80WG (fresh)	2X 0.28 and 2X0.15 kg a.s./ha	Mortality	25 %
		4X 1.92 kg a.s./ha	Mortality	91.67 %
		2X 0.28 and 2X0.15 kg a.s./ha	Reproduction	42%
		4X 1.92 kg a.s./ha	Reproduction	not determined
<i>Chrysoperla carnea</i> (larvae)	Thiram 80WG (28 d aged residue)	2X 0.28 and 2X0.15 kg a.s./ha	Mortality	2%
		4X 1.92 kg a.s./ha	Mortality	23.78%
		2X 0.28 and 2X0.15 kg a.s./ha	Reproduction	0%
		4X 1.92 kg a.s./ha	Reproduction	0%

Field or semi-field tests

Typhlodromus pyri

apple orchard, 4 appl. at 2.4 kg a.s./ha: E = 24.8 29.9%: slightly harmful

Typhlodromus pyri

apple orchard, 4 appl. at 2.4 kg a.s./ha: E = -12 24.8%: harmless

Whole arthropod fauna

field test on Carpinus, 3 appl. at 160 g a.s./hl: E = -17 to 4%: harmless

## Earthworms

Acute toxicity:

LC50 (14d) = 540 mg a.s./kg soil
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Reproductive toxicity:

Not required.
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## Soil micro-organisms

Nitrogen mineralization:

Negligible effects at 2.4 and 24 kg a.s./ha (less than 15% after 90 d)
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Carbon mineralization:

Negligible effects at 2.4 and 24 kg a.s./ha
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## APPENDIX IIIA

### THIRAM

List of studies for which the main submitter has claimed data protection and which during the re-evaluation process were considered as essential for the evaluation with a view to Annex I inclusion.

The evaluation of thiram is based on the dossier which has been submitted by the task force UCB (now: Taminco) and Uniroyal (now: Crompton). Except a few studies submitted by FMC, all the studies of this list were submitted by the task force or one of its Members.

Thiram task force I and thiram task force II are equivalent to task force UCB-Uniroyal.

#### **B.1 Identity, B.2 Physical and chemical properties, B.3 Data on application and further information, B.4 Proposals for classification and labelling, B.5 Methods of analysis**

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 1.10 IIA 4.1.2	Hull L.B., Forbes P.	1998	Accuracy validation of test control methods AC1214 and AC1216 for impurities in Thiram Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: 97067 - Uniroyal Ref. T.3.1.13 Date: 4 September 1998 GLP Unpublished	
IIA 1.11	Comb, A.L.	1997	Thiram (technical): Five-batch analysis Huntingdon Life Sciences Ltd. Generated by: FMC Foret S.A. Submitted by: FMC Foret S.A. Report N°: FRT 002/970098 Date: 5 August 1997 GLP Unpublished	
IIA 1.11/01	Demuyneck M.	1999	Presence of dimethylcarbamoyldimethylthio-carbamoyl disulfide in Thiram produced by UCB UCB Gent Generated by: UCB S.A. Submitted by UCB S.A. (on 20/8/1999) Company file No.: - Date: 1 April 1999 not GLP Unpublished	

<sup>7</sup> Entries are based on information received from the Notifier(s) and in certain cases Member States. Neither the Commission nor the Member States are responsible for the completeness or validity of this information received.

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 1.11/02	Forbes P.J., Mertz J.L.	1997	Composition and identification of impurities in Thiram produced by UCB Chemicals Uniroyal Chemical Company, Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by UCB S.A. (on 31/10/1997) Company file No.: 97034 Date: 26 September 1997 GLP Unpublished	
IIA 2.1.1/01	Riggs, A.S.	1994	The melting point range of purified Thiram. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10494 Date: July 27, 1994 GLP unpublished	
IIA 2.2/01	Tutty, D.G.	1993	Determination of the density of Thiram Technical. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10494 Date: October 14, 1993 GLP unpublished	
IIA 2.3.2/01	Pierce, T.B.	1995	Henry's law constant - Thiram J.B. Pierce Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. (23/09/97) Company file No.: 9520 Date: March 23, 1995 non-GLP unpublished	
IIA 2.4.1/01	Riggs, A.S.	1994	The colour of Technical Thiram Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10489 Date: February 4, 1994 GLP unpublished	
IIA 2.4.1/02	Riggs, A.S.	1994	The physical state of purified Thiram Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10490 Date: February 7, 1994 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 2.4.2/01	Riggs, A.S.	1994	The odour of Technical Thiram Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10493 Date: February 4, 1994 GLP unpublished	
IIA 2.5.1/01	Tutty, D.G.	1994	Determination of the ultraviolet visible absorption spectrum of pure grade Thiram. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10495 (93164) Date: January 24, 1994 GLP unpublished	
IIA 2.5.1/02	Penny, Helen B.	1995	IR-spectra: "Determination of the infrared spectrum of Thiram" Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. (23/09/97) Company file No.: GRL-10697 Date: March 14, 1995 GLP unpublished	
IIA 2.6/01	Tutty, D.G.	1993	Determination of the solubility of Thiram in water. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10497 (93166) Date: December 23, 1993 GLP unpublished	
IIA 2.6 IIA 2.11.2 IIA 2.14	Flack, I.	1997	Thiram physical and chemical properties Huntingdon Life Sciences Ltd. Generated by: FMC Foret S.A. Submitted by: FMC Foret S.A. Report N°: FCC 151/962024 Date: 10 September 1997 GLP Unpublished	
IIA 2.7/01	Tutty, D.G.	1993	Determination of the solubility of Thiram in organic solvents. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: GRL-10498 (93167) Date: December 23, 1993 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 2.7/04	Baele, G., Van De Putte, M., Demuyne, M.	1997	Solubility of Thiram in ethyl acetate UCB Gent Generated by: UCB Chemicals Submitted by: UCB Chemicals (23/9/97) Company file No.: W/RL/9709/001 Date: September 08, 1997 non-GLP unpublished	
IIA 2.8/01	Lemal, R.	1983	TMTD: Determination of octanol/water partition coefficient. UCB Gent Generated by: Thiram Task Force I Submitted by: Thiram Task Force I Company file No.: LPCD No 78 Date: December 23, 1983 non-GLP unpublished	
IIA 2.9.1/01	Norris, K.J.	1991	Determination of the hydrolysis rate of <sup>14</sup> C- Thiram. Analytical Development Corporation Generated by: Thiram Task Force I Submitted by: Thiram Task Force I Company file No.: ADC Project No 1156 Date: January 11, 1991 GLP unpublished	
IIA 2.9.2/01	McManus, J.P.	1991	Identification of the aqueous photodegradation products of <sup>14</sup> C-Thiram. Generated by: Thiram Task Force I Submitted by: Thiram Task Force I Company file No.: Uniroyal Proj. 8926 (T.8.1.8) Date: January 11, 1991 GLP unpublished	
IIA 2.9.3/01	Knoch, E.	1994	Determination of the direct phototrans- formation of <sup>14</sup> C-Thiram in a buffered medium at pH 7. RCC Umweltchemie Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: RCC Project No. 449600 Date: March 02, 1994 GLP unpublished	
IIA 2.9.4/01	Thomson, Paul A.	1995	Determination of the dissociation constant of pure grade Thiram Generated by: Uniroyal Chemical Ltd Submitted by: Uniroyal Chemical, Ltd. (23/09/97) Company file No.: GRL-10496 Date: February 2, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 2.11.1/01	Tremain S P	1999	Thiram Technical: Determination of flammability (solids) Safepharma Laboratories Limited Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 20/8/1999) Company file No.: 378/027 Date: 6 August 1999 GLP Unpublished	
IIA 2.13	Krips H.J.	2000	Determination of the explosive properties of Thiram Technical Notox Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Project Nr.: 279484 Date: 26 January 2000 GLP Unpublished	
IIA 4.2.1/02	Weber, H.	1993	Validation of the HPLC method for the determination of the residues of Thiram in vine (grapes and wine). Dr. Specht & Partner Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: BAS-9302V Date: October 25, 1993 GLP unpublished	
IIA 4.2.1/03	Weber, H.	1994	Validation of the HPLC method for the determination of the residues of Thiram in vine (wet and dry pomace, must). Dr. Specht & Partner Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: BAS-9301V Date: February 21, 1994 GLP unpublished	
IIA 4.2.1/04	Gatti, G.	1992	Determination of residues of Thiram on plums, pears, peaches, cherries and apples in compliance with good laboratory practice regulations - liquid chromatograph method. Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: Study LN 14/HP - GLP Date: December 11, 1992 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports <sup>7</sup> on previous use in granting national authorizations
IIA 4.2.2	Blaszczynski E.	2001	Analytical method for determining Thiram <sup>®</sup> in soil AGVISE Laboratories, Inc. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 26/12/2001) Study Nr.: 2000-187 Date: 23 February 2001 GLP Unpublished	
IIA 4.2.3	Blaszczynski E.	2000	Analytical method for determination of thiram in pond water AGVISE Laboratories, Inc. Generated by: UCB S.A., Uniroyal Chemical Company Inc. Submitted by: UCB S.A., Uniroyal Chemical Company Inc. (on 17/11/2000) Study Nr.: 99188 Date: 27 March 2000 GLP Unpublished	
IIA 4.2.4/02	Class Th.	2001	Development and validation of an analytical method for the determination of Thiram in air PTRL Europe Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 7/9/2001) Study Nr.: 2001-040 Date: 16 May 2001 GLP Unpublished	

**B.6 Toxicology and metabolism**

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>	<b>Reports on previous use in granting national authorizations</b>
IIA 5.1/02	Nomeir, A.A., Markham, P.	1990	Disposition and metabolism of Thiram in rats after pretreatment with Thiram for 14 days. Company file No.: Uniroyal Project No. 9049 (T.8.3.4) GLP unpublished	
IIA 5.1/03	Norris, K.J.	1991	Identification and comparison of urinary metabolite profiles of <sup>14</sup> C-Thiram in subchronic vs single oral dose in rats. Company file No.: Uniroyal Project No. 8833 (T.8.3.8) GLP unpublished	
IIA 5.3.3/01	Edwards, J.A., Mcrae, I.A., Gibson, W.A., Crook, D., Gopinath, C., Singh, H.	1992	Thiram Technical - Twenty-one day dermal toxicity study in rabbits. Huntingdon Research Centre (HRC) Company file No.: UCB 421/920767 GLP unpublished	
IIA 5.7	Williams Jackie	2001	Thiram: Acute investigative study in rats Central Toxicology Laboratory Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: AR7090 Date: 19 November 2001 GLP Unpublished	
IIA 5.7/01	Driscoll, C.D., Hurley, J.M.	1993	Thiram single exposure peroral (gavage) neurotoxicity study in rats. Bushy Run Research Center (BRRC) Company file No.: T.7.5.1 GLP Unpublished	
IIA 5.7/02	Driscoll, C.D., Hurley, J.M.	1993	Thiram: Ninety day dietary neurotoxicity study in Sprague-Dawley rats. Bushy Run Research Center (BRRC) Company file No.: T.7.5.2 GLP Unpublished	
IIA 5.8.1	Anon	2001	TOPKAT toxicity assessment report (DMCS) Accelerys Inc USA Submitted by Crompton Europe Ltd Not GLP Unpublished Submitted Dec 2001	

**B.7 Residue data**

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>	<b>Reports on previous use in granting national authorizations</b>
IIA 6.1/05	Liu, D.D.W., Robinson, R.A.	1994	Distribution and metabolism of <sup>14</sup> C Thiram in plants from treated sugarbeet seed. XenoBiotic Laboratories Inc. Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Uniroyal Study No. 92252 Date: November 1, 1994 GLP unpublished	
IIA 6.1/06	Liu, D.D.W., Robinson, R.A.	1994	Uptake and translocation of [ <sup>14</sup> C]-Thiram in plants from treated wheat seed. XenoBiotic Laboratories Inc. Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Uniroyal Project No. 91181 Date: November 4, 1994 GLP unpublished	
IIA 6.1/07	Liu, D.D.W., Robinson, R.A.	1994	Uptake and translocation of [ <sup>14</sup> C]-Thiram in plants from treated soybean seed. XenoBiotic Laboratories Inc. Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Uniroyal Project No. 92161 Date: November 1, 1994 GLP unpublished	
IIA 6.1/08	Wyss-Benz, M.	1994	<sup>14</sup> C-Thiram: Plant metabolism study in field grown apple. RCC Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: RCC Project 319588 Date: November 23, 1994 GLP unpublished	
IIA 6.1/09	Morgenroth, U., Wyss-Benz, M.	1995	<sup>14</sup> C-Thiram: Plant metabolism study in field grown grapes RCC Generated by: UCB Chemicals Submitted by: UCB Chemicals (30/10/96) Company file No.: RCC Project 319590 Date: July 4, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.1/10	Robinson, R.A.	1996	Investigation of the stability of <sup>14</sup> C-3-(Dimethyldithiocarbamoyl)-alanine in the presence of a soybean straw matrix XenoBiotic Laboratories Inc. Generated by: Thiram Task Force II Submitted by: UCB S.A., Uniroyal Chemical Limited (on 3/11/1997) Company file No.: Report No. RPT00245 - Study No. XBL 95321 Date: 13 September 1996 GLP Unpublished	
IIA 6.1/13	Womer, J.M., Balba, H.M.	1978	Translocation and soil movement of 14C Thiram from wheat seeds treated with Vitavax 200 Generated by: Crompton Corporation Submitted by: Crompton Europe Ltd. (in 12/2001) Study Nr.: 7846/7850 Date: 1978 Not GLP Unpublished	
IIA 6.2/01	Norris, K.J.		Determination of the metabolic fate of [ <sup>14</sup> C]-Thiram orally administered to laying hens. ADC + Colorado State University Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: ADC Report No. 1058-1 Date: September 17, 1993 GLP Unpublished	
IIA 6.2/02	Norris, K.J.		Determination of the metabolic fate of [ <sup>14</sup> C]-Thiram orally administered to lactating goats. Analytical Development Corporation Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: ADC Report No. 1057 (T.8.3.11) Date: February 16, 1993 GLP Unpublished	
IIA 6.3/01	Knight, C.	1995	Residues of Thiram in combining peas treated with Vitavax 200FF seed treatment. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: V.6.2.11.1 Date: January 10, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/02	Patel, N.P.	1995	Residues of Thiram in linseed treated with Vitavax 200FF seed treatment. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: V.6.2.12.1 Date: January 11, 1995 GLP unpublished	
IIA 6.3/03	Knight, C.	1995	Residues of gamma-HCH and Thiram in oilseed rape treated with Vitavax RS seed treatment. Generated by: Uniroyal Chemical, Ltd. Submitted by: Uniroyal Chemical, Ltd. Company file No.: Uniroyal Project No. AG/13148 GLP unpublished	
IIA 6.3/06	Rockwell, J.C.	1992	Residues of Thiram and its metabolites in alfalfa Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: 92-012 Date: June 24, 1992 non-GLP unpublished	
IIA 6.3/09	Ball, J.O	1988	Residues of Thiram and its monothioglucoside and dithioglucoside in soybeans (2 volumes). Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: T.6.2.5.2 (89-013) Date: December 21, 1988 non-GLP unpublished	
IIA 6.3/11	Rockwell, J.C.	1992	Residues of Thiram and its metabolite in cabbage. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Uniroyal Report No. 92-013 Date: June 23, 1992 non-GLP unpublished	
IIA 6.3/12	Ball, J.O	1988	Residues of Thiram and its dithioglucoside and monothioglucoside in sweet corn. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: T.6.2.4.3 Date: December 19, 1988 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/13	Rockwell, J.C.	1992	Residues of Thiram and its metabolites in cucumbers. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 92-014, HLA 6111-134D, Gustafson 01774 Date: June 23, 1992 non-GLP unpublished	
IIA 6.3/14	Rockwell, J.C.		Residues of Thiram and its metabolites in lettuce. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 90-007, HLA 6111-126K, Gustafson 01488 Date: February 13, 1990 non-GLP unpublished	
IIA 6.3/15	Rockwell, J.C.	1989	Residues of Thiram and its metabolites in peas. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 90-008, HLA 6111-126G, Gustafson 01489 Date: October 13, 1989 non-GLP unpublished	
IIA 6.3/16	Rockwell, J.C.	1990	Residues of Thiram and its metabolites in sugar beets. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 90-010, HLA 6111-126H, Gustafson 01491 Date: February 13, 1990 non-GLP unpublished	
IIA 6.3/17	Rockwell, J.C.	1989	Residues of Thiram and its metabolites in table beets. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 90-011 Date: October 13, 1989 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/18	Rockwell, J.C.	1992	Residues of Thiram and its metabolites in fresh and processing tomatoes. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: Report No. 92-015, HLA 6111-134F, Gustafson 01775 Date: June 23, 1992 non-GLP unpublished	
IIA 6.3/19	Ball, J.O	1988	Residue of Thiram and its dithioglucoside and monothioglucoside in cotton (2 volumes). Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: T.6.2.3.2, 89-008, HLA 6111-126J, Gustafson 01483 Date: December 21, 1988 non-GLP unpublished	
IIA 6.3/20	Rockwell, J.C.	1989	Residues of Thiram and its metabolites in safflower. Gustafson + Hazleton Laboratories Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: 90-009, HLA 6111-126L, Gustafson 01490 Date: October 13, 1989 non-GLP unpublished	
IIA 6.3/21	Christman, P.J.	1992	78-Week frozen storage stability of Thiram and dithioglucoside of Thiram in crops. Hazleton Laboratories America, Inc. Generated by: Thiram Task Force II Submitted by: Thiram Task Force II Company file No.: HLA 6111-126 A-L Date: June 23, 1992 GLP unpublished	
IIA 6.3/22	Roland, L.	1993	Study on the stability of Thiram on frozen whole plums. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: CRP/93/1025 Date: April 23, 1993 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/23	Roland, L.	1994	Résidus de Thirame sur raisins, moûts et vins. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: FR 7/91 (CRP/94/1295) Date: August 18, 1994 non-GLP unpublished	
IIA 6.3/24	Blaschke, U.	1995	Raw agricultural and processed commodity study with LX1282-01 (Dirac Express) applied to grapes in France. Paragon Global Services Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB-9301A (28203B002) Date: May 23, 1995 GLP unpublished	
IIA 6.3/25	Blaschke, U.	1995	Raw agricultural and processed commodity study with LX1282-02 (Silbos DF) applied to grapes in France. Paragon Global Services Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB 9301c (28203B004) Date: May 23, 1995 GLP unpublished	
IIA 6.3/26 IIA 6.3/27 IIA 6.3/28 IIA 6.3/29	Weber, H.	1994	Determination of residues of Thiram in vine (grapes, must and wine) BASF study Dr. Specht & Partner DE/FR/03/92, Trial No. DU2/60/92, DU2/61/92, DU3/29/92, DU3/30/92. Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: BAS-9302 Date: January 19, 1994 GLP unpublished	
IIA 6.3/30	Blaschke, U.	1995	Raw agricultural and processed commodity study with LX1282-02 (Dirac Express) applied to grapes in France. Paragon Global Services Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB-9301b (28203B003) Date: May 23, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/31	Blaschke, U.	1995	Raw agricultural and processed commodity study with LX1280-01 (Dirac Express) applied to grapes in France. Paragon Global Services Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB-9301 (28203B001) Date: May 23, 1995 GLP unpublished	
IIA 6.3/32 IIA 6.3/33	Balluff, M.	1995	Determination of residues of Thiram 80WG in grapes under field conditions at two locations in France. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/01-FPWE Date: April 7, 1995 GLP unpublished	
IIA 6.3/34	Schmidt, Ohs	1990	Field report and analytical data field trial No. 0318/89, residue on apple, (Germany), 80WP formulation Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 0318/89 Date: April 9, 1990 non-GLP unpublished	
IIA 6.3/35	Schmidt, Ohs	1990	Field report and analytical data field trial No. 0320/89, residue on apple, (Germany), 80WP formulation Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 0320/89 Date: April 9, 1990 non-GLP unpublished	
IIA 6.3/36	Roland, L.	1992	Residues of Thiram on apples. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/974 (BEVJG1) Date: November, 1992 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/37	Roland, L.	1992	Residues of Thiram on apples. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/973 BEVJG2) Date: November, 1992 non-GLP unpublished	
IIA 6.3/38	Pigeon, O.	1993	Determination of residues of Thiram (TMTD) on apples by selective method. Station de phytopharmacie de l'Etat, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB/P.J./B.A.7792c Date: December 30, 1993 GLP unpublished	
IIA 6.3/39 IIA 6.3/40	Ohs	1995	Determination of residues of Pomarsol 80WG in/on apple under actual use conditions in Belgium. Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: RA-2097/93 (study numbers 304670 [467/93], 304735 [473/93]) Date: April 13, 1995 GLP unpublished	
IIA 6.3/41	Gatti, G	1992	Determination of residues of Thiram in plums, pears, peaches, cherries and apples in compliance with good laboratory practice regulations - CS2 headspace method, liquid chromatography method. Neotron Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: UCB 201/202/203/204/205 (Laboratory study LN 14/HP, LN 14/HD) Date: December 11, 1992 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/42	Gatti, G.	1991-92	Field reports and analytical data for 1991 trials in Italy on apples, pears, peaches, cherries and plums (50WG formulation). Neutron Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: 58-F-91/6009/6010/6011/6012 UCB 911/912/913/914 (Laboratory study LN 12) Date: 1991-92 GLP unpublished	
IIA 6.3/43 IIA 6.3/44	Ohs	1995	Determination of residues of Pomarsol 80WG in/on Apple under actual use conditions in France and of Pomarsol 50WG in/on Apple under actual use conditions in Italy. Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: RA-2099/93 (study numbers 304697, 304700) Date: April 13, 1995 GLP unpublished	
IIA 6.3/45	Schmidt, Ohs	1990	Field report and analytical data field trial No. 0319/89, residue on pear, (Germany), 80WP formulation Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 0319/89 Date: April 9, 1990 non-GLP unpublished	
IIA 6.3/46	Schmidt, Ohs	1990	Field report and analytical data field trial No. 0321/89, residue on pear, (Germany), 80WP formulation Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 0321/89 Date: April 9, 1990 non-GLP unpublished	
IIA 6.3/47	Roland, L.	1992	Residues of Thiram on pears B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/978 BEVECON 1) Date: November, 1992 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/48	Roland, L.	1992	Residues of Thiram on pears B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/977 BEVECON 2) Date: November, 1992 non-GLP unpublished	
IIA 6.3/49	Pigeon, I.O.	1993	Determination of residues of Thiram (TMTD) on pears by selective method. Station de phytopharmacie de l'Etat, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: BA 7792b (BEWCON) Date: December 30, 1993 GLP unpublished	
IIA 6.3/53	Balluff, M.	1995	Determination of residues of Thiram 80WG in pears under field conditions at one locations in Spain. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/01-FBPI Date: March 27, 1995 GLP unpublished	
IIA 6.3/57	Balluff, M.	1995	Determination of residues of Thiram 80WG in cherries under field conditions at one location in Spain. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/01-FPKI Date: March 27, 1995 GLO unpublished	
IIA 6.3/60	Balluff, M.	1995	Determination of residues of Thiram 80WG in plums under field conditions at one location in south France. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/02-FPPL Date: March 27, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/64	Ohs	1995	Determination of residues of Pomarsol 80WG in/on peach under actual use conditions in France. Bayer AG Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: RA-2083/93 (study number 304654) Date: January 20, 1995 GLP unpublished	
IIA 6.3/65 IIA 6.3/66	Balluff, M.		Determination of residues of Thiram 80WG in peaches under field conditions at two locations in Spain. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/01-FPPF Date: March 27, 1995 GLP unpublished	
IIA 6.3/67 IIA 6.3/68	Roland, L.	1992	Résidus de Thiram sur fraises. Residues of Thiram on strawberries. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/864A (BC/SELVA1, BC/SELVA2) + CRP/92/865A Date: May, 1992 GLP unpublished	
IIA 6.3/69	Roland, L.	1992	Résidus de Thirame sur fraises. Residues of Thiram on strawberries. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/862A (BC/VICODA) Date: May, 1992 non-GLP unpublished	
IIA 6.3/70	Roland, L.	1992	Résidus de Thirame sur fraises. Residues of Thiram on strawberries. B.E.A.Gx Centre de Recherches de Phytopharmacie, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: CRP/92/863 (91/BC Elsanta) Date: May, 1992 non-GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/71	Pigeon, I.O.	1993	Determination of residues of Thiram (TMTD) on strawberries (variety Selva) by selective method. Station de phytopharmacie de l'Etat, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: BA 7792a (BCSEL) Date: December 30, 1993 GLP unpublished	
IIA 6.3/72	Pigeon, I.O.	1993	Determination of residues of Thiram (TMTD) on strawberries by selective method. Station de phytopharmacie de l'Etat, Gembloux Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: BA 7792d(BCIRV) Date: December 30, 1993 GLP unpublished	
IIA 6.3/73	Reynens Ph., Doctot Th., Dumont de Chassart Y.	1994	Determination of the magnitude of residue resulting from thiram foliar applications on strawberries - Ittre Belgium Redebel UCB Study N°: RU 0493 (Ittre UCB-B-93-3) Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB 93/3 Date: February 5, 1994 GLP unpublished	
IIA 6.3/74 IIA 6.3/75	Direction régionale de l'agriculture et de la forêt	1992	Experimentations residues 1992 - (France) Thianosan ultra dispersible, 80WG formulation). Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: SPV3301, SPV3302 Date: January 3, 1992 non-GLP unpublished	
IIA 6.3/76	Prevotat M., Dumont de Chassart Y.	1995	Determination of magnitude of residue resulting from thiram foliar applications on strawberries Prestagro UCB Study n°: RU 0493 Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: UCB 93-10 Date: April, 1995 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/77 IIA 6.3/78	Balluff, M.	1995	Determination of residues of Thiram 80WG in strawberries under field conditions at two locations in France. GAB Biotechnologie GmbH Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: 94020/01-FPEBL Date: April 7, 1995 GLP unpublished	
IIA 6.3/85	Perny A.	1998	Determination of Thiram (as CS <sub>2</sub> ) residues in apricot raw agricultural commodity following treatment with the preparation Thianosan Ultra Dispersible under field conditions in France in 1997 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: R 7057 DE - trial No. 7057 BD1 + BD2 Date: 9 February 1998 GLP Unpublished	
IIA 6.3/86	Perny A.	1998	Determination of Thiram (as CS <sub>2</sub> ) residues in apricot raw agricultural commodity following treatment with the preparation Thianosan Ultra Dispersible under field conditions in France in 1997 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: R 7059 DE - trial No. 7059 SA1 + BD1 Date: 3 February 1998 GLP Unpublished	
IIA 6.3/87	Balluff M.	1999	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in France, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/F2-FGST - trial codes: F98035R Date: 2 March 1999 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/88	Balluff M.	1999	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in France, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/F2-FGST - trial codes: F98034R Date: 2 March 1999 GLP Unpublished	
IIA 6.3/89	Balluff M.	1998	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions in Spain GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 97064/E1-FGST - trial codes: S97020R Date: 1 July 1998 GLP Unpublished	
IIA 6.3/90	Balluff M.	1998	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in Spain, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/S1-FGST - trial codes: S98018R Date: 12 November 1998 GLP Unpublished	
IIA 6.3/91	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Northern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1011 Date: 20 November 2001 GLP Unpublished	
IIA 6.3/92	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Northern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1010 Date: 9 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/93	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Southern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1012 Date: 9 November 2001 GLP Unpublished	
IIA 6.3/94	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Southern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1045 Date: 20 November 2001 GLP Unpublished	
IIA 6.3/95	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FPAP Date: 22 March 2001 GLP Unpublished	
IIA 6.3/96	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPAP Date: 21 May 2001 GLP Unpublished	
IIA 6.3/97	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1015 Date: 17 December 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/98	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 200036003/S1-FPAP Date: 27 March 2001 GLP Unpublished	
IIA 6.3/99	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (submitted on 26/12/2001) Company file No.: R A1013 Date: 9 November 2001 GLP Unpublished	
IIA 6.3/100	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1014 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/101	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Northern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1016 Date: 9 November 2001 GLP Unpublished	
IIA 6.3/102	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Northern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1017 Date: 9 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/103	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Southern France, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/F1-FPPE Date: 22 March 2001 GLP Unpublished	
IIA 6.3/104	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Southern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1018 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/105	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Southern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1046 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/106	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FPPE Date: 31 March 2001 GLP Unpublished	
IIA 6.3/107	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPPE Date: 21 March 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/108	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1021 Date: 17 December 2001 GLP Unpublished	
IIA 6.3/109	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPPE Date: 27 March 2001 GLP Unpublished	
IIA 6.3/110	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1019 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/111	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1020 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/112	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apricots at one site in France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1026 Date: 19 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/113	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apricots at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPAC Date: 27 March 2001 GLP Unpublished	
IIA 6.3/114	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apricots at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1027 Date: 19 November 2001 GLP Unpublished	
IIA 6.3/115	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1022 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/116	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Greece, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/GR1-FPPC Date: 27 March 2001 GLP Unpublished	
IIA 6.3/117	Balluff M.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Greece, 2001 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1024 Date: 20 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/118	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1025 Date: 20 November 2001 GLP Unpublished	
IIA 6.3/119	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPPC Date: 27 March 2001 GLP Unpublished	
IIA 6.3/120	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S2-FPPC Date: 27 March 2001 GLP Unpublished	
IIA 6.3/121	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1047 Date: 13 November 2001 GLP Unpublished	
IIA 6.3/122	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1023 Date: 13 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/123	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in France, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/F1-FGLE Date: 31 May 2001 GLP Unpublished	
IIA 6.3/124	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FGLE Date: 21 May 2001 GLP Unpublished	
IIA 6.3/125	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FGLE Date: 21 May 2001 GLP Unpublished	
IIA 6.3/126	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FGLE Date: 21 May 2001 GLP Unpublished	
IIA 6.3/127	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in lettuce under greenhouse in Northern and Southern Europe, 2001 Generated by: UCB S.A. Anadiag Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1028 Date: 21 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 6.3/128	Balluff M.	2001	Final report of the processing part: Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPAP Date: 21 May 2001 GLP Unpublished	

### B.8 Environmental fate and behaviour

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 7.1.1.1.1/0 1	Morgenroth, U.	1995	<sup>14</sup> C-Thiram: Degradation and metabolism in one soil incubated under aerobic conditions RCC Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file no.: RCC 326182 GLP unpublished	
IIA 7.1.1.1.1/0 2	Nag J.K, Regis R.R.	2000	Rate of degradation of <sup>14</sup> C-Thiram under aerobic conditions in three soils Uniroyal Chemical Company, Inc. + RCC Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 13/3/2000) Study Nr.: 98204 Date: March 2000 GLP Unpublished	
IIA 7.1.1.1.2/0 1	Wyss-Benz, M.	1994	<sup>14</sup> C-Thiram: Degradation and metabolism in an anaerobic aquatic system RCC Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file no.: RCC 329635 GLP unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 7.1.1.1.2/02	Burri, R.	1995	Photodegradation study of <sup>14</sup> C-Thiram on soil RCC Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file no.: RCC 326171 GLP unpublished	
IIA 7.1.2/01	Morgenroth, U.	1995	Adsorption/Desorption of <sup>14</sup> C-Thiram on 4 soils RCC Generated by: UCB Chemicals Submitted by: UCB Chemicals (25/4/97) Company file no.: RCC 354780 GLP unpublished	
IIA 7.1.3	Nag J.K, Regis R.R.	2001	Aged-Soil Column Leaching of <sup>14</sup> C-Thiram in one soil JSC International Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 15/02/2001) Study Nr.: 2000-090 Date: 12 February 2001 GLP Unpublished	
IIA 7.2.1.3.2/02	Mamouni A.	1992	Degradation and metabolism of Thiram in aquatic systems - First amendment to report RCC Umweltchemie Generated by: UCB S.A. Submitted by: UCB S.A. (on 20/8/1999) Company file No.: RCC 303456 Date: 7 July 1992 GLP Unpublished	
IIA 7.2.1.3.2/03	Wyss-Benz, M.	1995	Degradation and metabolism of Thiram in aquatic systems RCC Umweltchemie Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/8/1999) Company file No.: RCC 390205 Date: 29 November 1995 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 7.2.1.3.2/04	Völkl S.	2000	<sup>14</sup> C-Ziram: route and rate of degradation in aerobic aquatic systems - <i>draft report</i> <sup>(*)</sup> RCC Umweltchemie Generated by: Ziram EU Task Force Submitted by: UCB S.A. (summary, submitted on 18/08/2000) Company file No.: RCC 744693 Date: 2000 GLP Unpublished	
IIA 7.2.2	Förster B.	1992	Estimation of the Atmospheric Residence Time of Thiram using the Atkinson Method SCC Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/2/1999) Company file No. 152-009-Atkinson Date: 7 July 1992 Not GLP Unpublished	

### B.9 Ecotoxicology

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.1	Pritchard P.R	2001a	Study to determine the amount of thiram treated seed and seedlings when treated seed remains uncovered at drilling Crompton Europe Ltd GLP Unpublished Submitted Dec 2001	
IIA 8.1	Pritchard P.R	2001b	Study to generate seed and seedling samples from thiram treated seed, broadcast onto the soil Crompton Europe Ltd GLP Unpublished Submitted Dec 2001	
IIA 8.1	Pritchard P.R	2001c	Study to generate seed samples and seedlings for the determination of the loss of detectable thiram from drilled wheat seed Crompton Europe Ltd GLP Unpublished Submitted Dec 2001	

<sup>(\*)</sup> only some parts of the draft report are submitted (cover page + p. 13-15 + p. 56-57)

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.1.1/01	Johnson A.J.	1999	Vitavax 200FF - Assessment to determine the effect on palatability and dietary toxicity in the pigeon Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: URO 013 - Uniroyal Ref. V.7.5.2.32 Date: 23 April 1999 GLP Unpublished	
IIA 8.1.1/02	Grolleau G.	1998	Repellent effect of thiram on partridges under laboratory conditions Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Report Nr.: Uniroyal Ref. T.7.6.1.7 Date: 17 November 1998 Not GLP Unpublished	
IIA 8.1.1/03	Zaják A.	1995	Acute oral toxicity of Biosild T on Japanese quail Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 25/A-5/1995 Date: 1995 GLP Unpublished	
IIA 8.1.1/04	Zaják A.	1995	Acute oral toxicity of Biosild T on Mallard ( <i>Anas platyrhynchos</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 29/A-5/1995 Date: 1995 GLP Unpublished	
IIA 8.1.2/01	Zaják A.	1995	The dietary LC <sub>50</sub> toxicity study of Biosild T with the Japanese Quail ( <i>Coturnix coturnix japonica</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 27/A-5/1995 Date: 1995 GLP Unpublished	
IIA 8.1.2/02	Zaják A.	1995	The dietary LC <sub>50</sub> toxicity study of Biosild T with the mallard ( <i>Anas platyrhynchos</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 28/A-5/1995 Date: 1995 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.1.3/01	Beavers J. B., Chafey K., Mitchell L. R., Jaber M.	1995	Thiram Technical: A one generation reproduction study with the Northern Bobwhite Wildlife International, Inc. Generated by: Thiram Task Force II. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 357-103 Date: 31 March 1995 GLP Unpublished	
IIA 8.2/01	Peither A.	2000	Acute toxicity of Thiram Technical to rainbow trout ( <i>Oncorhynchus mykiss</i> ) in a 96-hour static test RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (range finding results submitted on 18/08/2000) Company file No.: 775552 Year: 2000 GLP Unpublished	
IIA 8.2/01	Peither, A.	2000	Acute toxicity of Thiram Technical to rainbow trout ( <i>Oncorhynchus mykiss</i> ) in a 96-hour static test RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 775552 Year: 2000 GLP Unpublished	
IIA 8.2/05	Chole P., McAllister W.A.	198 3	Acute toxicity of Thiurad <sup>®</sup> to Fathead Minnows ( <i>Pimephales promelas</i> ) ABC Labs Generated by: UCB S.A.. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 31114 Year: 27 December 1983 GLP Unpublished	
IIA 8.2/06	Forbis, A.D.	1983	Acute toxicity of Thiurad <sup>®</sup> to Bluegill Sunfish ( <i>Lepomis macrochirus</i> ) ABC Labs Generated by: UCB S.A.. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 30561 Year: 25 August 1983 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.2.1/02	Croudace, C.P., Caunter, J.E., Johnson, P.A.	1992	Thiram: acute toxicity to sheepshead minnow ( <i>Cyprinodon variegatus</i> ) Imperial Chemical Industries PLC (ICI) Generated by: UCB Chemicals Held on file by: UCB Chemicals Company file No.: BL4532/B GLP Unpublished	
IIA 8.2.2.2	Memmert, U.	2001	Sublethal effects of Thiram 80WG to Rainbow trout ( <i>Oncorhynchus mykiss</i> ) after a fourfold application to a water-sediment system RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 804363 Year: 30 October 2001 GLP Unpublished	
IIA 8.2.2.2	Memmert U.	2001	Sublethal effects of Ziram 76WG to Bluegill sunfish ( <i>Lepomis macrochirus</i> ) after a fourfold application to a water-sediment system RCC Ltd. Generated by: Ziram Task Force Submitted by: Ziram Task Force (submitted on 26/12/01) Study project No.: 811438 Date: 6 November 2001 GLP unpublished	
IIA 8.2.4/01	Bell, G.	1994	Thiram: Acute toxicity to <i>Daphnia magna</i> . Huntingdon Research Centre Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: UCB 536/941172 Date: December 20, 1994 GLP Unpublished	
IIA 8.2.4/02	Van der Kerken K.	1999	Acute toxicity of Thiram 80WG for <i>Daphnia magna</i> LISEC Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: WE-01-222 Year: 1999 Not GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.2.5	Memmert U.	2000	Ecological effects of Thiram 80WG in a freshwater mesocosm study RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 11/07/2000) Report Nr.: 733454 Date: 16 June 2000 GLP Unpublished	
IIA 8.2.6	Jennings A.M., Jenkins C.	2001	Algal Growth Inhibition - 2 <sup>nd</sup> Amendment Huntingdon Research Centre Generated by: UCB S.A. Submitted by: UCB S.A. Report Nr.: Amendment to report UCB 442/921255 Date: 6 December 2001 GLP Unpublished	
IIA 8.2.6/01	Douglas Mark T.	1995	Thiram - Algal growth inhibition. Huntingdon Research Centre Generated by: UCB Chemicals Submitted by: UCB Chemicals Company file No.: UCB 442/921255 Date: January 21, 1995 GLP unpublished	
IIA 8.3.1	Kling A.	2000	Assessment of Side Effects of Thiram 80WG to the Honey Bee, <i>Apis mellifera</i> L. in the laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 18/08/2000) Report Nr.: 99452/01-BLEU Date: 17 May 2000 GLP Unpublished	
IIA 8.3.2/01	Schuld M.	2000	Thiram 80 WG: Acute Toxicity to the Aphid Parasitoid, <i>Aphidius rhopalosiphii</i> (Hymenoptera, Braconidae) DeStefani-Perez in the Laboratory 99452/01-NLAp Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Report Nr.: 99452/01-NLAp Date: 22 March 2000 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.3.2/02	Kleiner R.	1991	Testing toxicity to beneficial arthropods Carabid beetle - <i>Poecilus cupreus</i> L. according to BBA Guideline VI, 23-2.1.8 BioChem GmbH Karlsruhe Generated by: UCB S.A. Submitted by: UCB S.A. (on 1/7/1999) Company file No.: 94 10 48 052 Date: 1991 GLP Unpublished	
IIA 8.3.2/03	Kleiner R.	1992	Testing toxicity to beneficial arthropods Rove beetle - <i>Aleochara bilineata</i> Gyll. according to IOBC Guideline (Moreth & Naton) BioChem GmbH Karlsruhe Generated by: UCB S.A. Submitted by: UCB S.A. (on 1/7/1999) Company file No.: 94 10 48 053 Date: 1992 GLP Unpublished	
IIA 8.3.2/04	IBACON	1995	Effects of Vitavax 200FF on the reproduction of <i>Aleochara bilineata</i> in the lab. Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr. 452070 - Uniroyal Ref. V.7.5.2.22 Date: 6 June 1995 GLP Unpublished	
IIA 8.3.2/05	IBACON	1995	Effects of Vitavax 200FF on <i>Poecilus cupreus</i> In the lab. Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: 451006 - Uniroyal Ref. V.7.5.2.23 Date: 31 May 1995 GLP Unpublished	
IIA 8.3.2/06	Kemmeter, F.	2000	Thiram 80 WG: Toxicity to the Green Lacewing, <i>Chrysoperla carnea</i> Steph. (Neuroptera, Chrysopidae) in the Laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 18/8/2000) Project Nr.: 99452/01-NLCC Date: 23 June 2000 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.3.2/07	Röhlig R., Kästner A.	2001	Toxicity of Thiram 80WG to larvae of the ladybird <i>Coccinella septempunctata</i> L. under laboratory conditions BioChem agrar Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 00 10 48 076 Date: 16 January 2001 GLP Unpublished	
IIA 8.3.2/08	Schuld M.	2001	Thiram 80 WG: An extended study to evaluate the effects on the Aphid Parasitoid, <i>Aphidius rhopalosiphi</i> (Hymenoptera, Braconidae) DeStefani-Perez in the Laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NEAp Date: 6 November 2001 GLP Unpublished	
IIA 8.3.2/09	Stäbler P.	2001	Thiram 80WG: An extended Laboratory study to evaluate the effect on the ladybird <i>Coccinella septempunctata</i> L. (Coleoptera, Coccinellidae) GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NECs Date: 6 November 2001 GLP Unpublished	
IIA 8.3.2/10	Stäbler P.	2001	Thiram 80WG: An extended laboratory study to evaluate the effects on the green lacewing, <i>Chrysoperla carnea</i> Steph. (Neuroptera, Chrysopidae) GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NECc Date: 27 November 2001 GLP Unpublished	

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not	Reports on previous use in granting national authorizations
IIA 8.5	Wachter S.	2000	Assessment of the side effects of Thiram 80WG on the activity of the soil microflora GAB Biotechnologie GmbH Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Report Nr.: 99452/01-ABMF Date: 29 February 2000 GLP Unpublished	
IIA 8.7	Van der Kerken K.	1999	Activated sludge respiration inhibition test of Thiram LISEC Generated by: UCB S.A. Submitted by: UCB S.A. (on 8/6/2000) Project Nr.: WE-09-041 Year: 1999 GLP Unpublished	

**APPENDIX IIIB****THIRAM**

List of studies which were submitted during the evaluation process and were not cited in the draft assessment report:

**B.1 Identity, B.2 Physical and chemical properties, B.3 Data on application and further information, B.4 Proposals for classification and labelling, B.5 Methods of analysis**

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 1.10 IIA 4.1.2	Hull L.B., Forbes P.	1998	Accuracy validation of test control methods AC1214 and AC1216 for impurities in Thiram Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: 97067 - Uniroyal Ref. T.3.1.13 Date: 4 September 1998 GLP Unpublished
IIA 1.11	Comb A.L.	1997	Thiram (technical): Five-batch analysis Huntingdon Life Sciences Ltd. Generated by: FMC Foret S.A. Submitted by: FMC Foret S.A. Report N°: FRT 002/970098 Date: 5 August 1997 GLP Unpublished
IIA 1.11/01	Demuyck M.	1999	Presence of dimethylcarbamoylethylthio-carbamoyl disulfide in Thiram produced by UCB UCB Gent Generated by: UCB S.A. Submitted by UCB S.A. (on 20/8/1999) Company file No.: - Date: 1 April 1999 not GLP Unpublished
IIA 2.6 IIA 2.11.2 IIA 2.14	Flack I.	1997	Thiram physical and chemical properties Huntingdon Life Sciences Ltd. Generated by: FMC Foret S.A. Submitted by: FMC Foret S.A. Report N°: FCC 151/962024 Date: 10 September 1997 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 2.6/02	Van de Putte M.	1997	Solubility of Thiram in water: effect of pH UCB Gent Generated by: UCB S.A. Submitted by: UCB S.A. (on 3/11/1997) Company file No.: Report W/RL/9710/006 Date: 30 October 1997 not GLP Unpublished
IIA 2.11.1/01	Tremain S. P.	1999	Thiram Technical: Determination of flammability (solids) Safepharma Laboratories Limited Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 20/8/1999) Company file No.: 378/027 Date: 6 August 1999 GLP Unpublished
IIA 2.13	Krips H.J.	2000	Determination of the explosive properties of Thiram Technical Notox Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Project Nr.: 279484 Date: 26 January 2000 GLP Unpublished
IIA 2.15	Penny H.B.	1995	Determination of the oxidizing and reducing characteristics of Thiram Uniroyal Chemical Company, Ltd. Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited (on 23/9/1997) Project Nr.: GRL-10501 Date: 1995 GLP Unpublished
IIA 4.2.1/10	Roland L.	1996	HPLC method for the determination of Thiram in fruits validation of some critical points Faculté des Sciences Agronomiques - GEMBLOUX Generated by: UCB S.A. Submitted by: UCB S.A. (on 3/11/1997) Company file No.: - Date: March 1996 not GLP Unpublished
IIA 4.2.1/11	Klumpp M.	2001	Residue analysis of thiram in fruits and lettuce: method validation GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Project Nr.: 20011109/01-RVP Date: 9 November 2001 GLP Unpublished

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 4.2.2	Blaszczynski E.	2001	Analytical method for determining Thiram® in soil AGVISE Laboratories, Inc. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 26/12/2001) Study Nr.: 2000-187 Date: 23 February 2001 GLP Unpublished
IIA 4.2.3	Blaszczynski Elizabeth	2000	Analytical method for determination of thiram in pond water AGVISE Laboratories, Inc. Generated by: UCB S.A., Uniroyal Chemical Company Inc. Submitted by: UCB S.A., Uniroyal Chemical Company Inc. (on 17/11/2000) Study Nr.: 99188 Date: 27 March 2000 GLP Unpublished
IIA 4.2.4/01	NIOSH	1994	Thiram - NIOSH Method 5005 - Determination in air NIOSH Manual of Analytical Methods (NMAM), 4 <sup>th</sup> Edition, Issue 2, dated 15 August 1994, pp. 1-3 (submitted on 19/2/1999) not GLP Published
IIA 4.2.4/02	Class Th.	2001	Development and validation of an analytical method for the determination of Thiram in air PTRL Europe Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 7/9/2001) Study Nr.: 2001-040 Date: 16 May 2001 GLP Unpublished

### B.6 Toxicology and metabolism

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 5.7	Williams Jackie	2001	Thiram: Acute investigative study in rats Central Toxicology Laboratory Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: AR7090 Date: 19 November 2001 GLP Unpublished

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 5.8.1	Anon	2001	TOPKAT toxicity assessment report (DMCS) Accelerys Inc USA Submitted by Crompton Europe Ltd Not GLP Unpublished Submitted Dec 2001

**B.7 Residue data**

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 6.1/10	Robinson, R.A.	1996	Investigation of the stability of <sup>14</sup> C-3-(Dimethyldithiocarbamoyl)-alanine in the presence of a soybean straw matrix XenoBiotic Laboratories Inc. Generated by: Thiram Task Force II Submitted by: UCB S.A., Uniroyal Chemical Limited (on 3/11/1997) Company file No.: Report No. RPT00245 - Study No. XBL 95321 Date: 13 September 1996 GLP Unpublished
IIA 6.1/11	Dekhuijzen	1964	The systemic action of dimethyldithiocarbamates on cucumber scab caused by <i>Cladosporium cucumerinum</i> and the conversion of these compounds by plants Neth. J. Plant. Path., 1964, Vol. 70 - Suppl. 1, pp. 1-75 Submitted by: UCB (on 8/9/1999) Not GLP Published
IIA 6.1/12	Massaux F.	1963	Contribution à l'étude de l'action systemique du Thiram (TMTD) chez les plantes à l'aide de thiram marqué au 35S Mededelingen vd Lanbouwhogeschool & de Opzoekingsstations vd Staat te Gent, 28, (1963), pp. 590-596 Submitted by: UCB S.A. (on 8/9/1999) not GLP Published
IIA 6.1/13	Womer, J.M., Balba, H.M.	1978	Translocation and soil movement of 14C Thiram from wheat seeds treated with Vitavax 200 Generated by: Crompton Corporation Submitted by: Crompton Europe Ltd. (in 12/2001) Study Nr.: 7846/7850 Date: 1978 Not GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/85	Perny A.	1998	Determination of Thiram (as CS <sub>2</sub> ) residues in apricot raw agricultural commodity following treatment with the preparation Thianosan Ultra Dispersible under field conditions in France in 1997 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: R 7057 DE - trial No. 7057 BD1 + BD2 Date: 9 February 1998 GLP Unpublished
IIA 6.3/86	Perny A.	1998	Determination of Thiram (as CS <sub>2</sub> ) residues in apricot raw agricultural commodity following treatment with the preparation Thianosan Ultra Dispersible under field conditions in France in 1997 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: R 7059 DE - trial No. 7059 SA1 + BD1 Date: 3 February 1998 GLP Unpublished
IIA 6.3/87	Balluff M.	1999	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in France, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/F2-FGST - trial codes: F98035R Date: 2 March 1999 GLP Unpublished
IIA 6.3/88	Balluff M.	1999	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in France, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/F2-FGST - trial codes: F98034R Date: 2 March 1999 GLP Unpublished
IIA 6.3/89	Balluff M.	1998	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions in Spain GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 97064/E1-FGST - trial codes: S97020R Date: 1 July 1998 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/90	Balluff M.	1998	Determination of residues of Thiram in strawberries following the application of Thiram Granuflo 80WG under Greenhouse conditions at 1 location in Spain, 1998 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 28/05/1999) Company file No.: 98053/S1-FGST - trial codes: S98018R Date: 12 November 1998 GLP Unpublished
IIA 6.3/91	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Northern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1011 Date: 20 November 2001 GLP Unpublished
IIA 6.3/92	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Northern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1010 Date: 9 November 2001 GLP Unpublished
IIA 6.3/93	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Southern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1012 Date: 9 November 2001 GLP Unpublished
IIA 6.3/94	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Southern France, 2001 Andadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1045 Date: 20 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/95	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FPAP Date: 22 March 2001 GLP Unpublished
IIA 6.3/96	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPAP Date: 21 May 2001 GLP Unpublished
IIA 6.3/97	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1015 Date: 17 December 2001 GLP Unpublished
IIA 6.3/98	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 200036003/S1-FPAP Date: 27 March 2001 GLP Unpublished
IIA 6.3/99	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (submitted on 26/12/2001) Company file No.: R A1013 Date: 9 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/100	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apples at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1014 Date: 13 November 2001 GLP Unpublished
IIA 6.3/101	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Northern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1016 Date: 9 November 2001 GLP Unpublished
IIA 6.3/102	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Northern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1017 Date: 9 November 2001 GLP Unpublished
IIA 6.3/103	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Southern France, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/F1-FPPE Date: 22 March 2001 GLP Unpublished
IIA 6.3/104	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Southern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1018 Date: 13 November 2001 GLP Unpublished
IIA 6.3/105	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Southern France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1046 Date: 13 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/106	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FPPE Date: 31 March 2001 GLP Unpublished
IIA 6.3/107	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPPE Date: 21 March 2001 GLP Unpublished
IIA 6.3/108	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1021 Date: 17 December 2001 GLP Unpublished
IIA 6.3/109	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in pears at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPPE Date: 27 March 2001 GLP Unpublished
IIA 6.3/110	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1019 Date: 13 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/111	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in pears at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1020 Date: 13 November 2001 GLP Unpublished
IIA 6.3/112	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apricots at one site in France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1026 Date: 19 November 2001 GLP Unpublished
IIA 6.3/113	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apricots at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPAC Date: 27 March 2001 GLP Unpublished
IIA 6.3/114	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in apricots at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1027 Date: 19 November 2001 GLP Unpublished
IIA 6.3/115	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in France, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1022 Date: 13 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/116	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Greece, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/GR1-FPPC Date: 27 March 2001 GLP Unpublished
IIA 6.3/117	Balluff M.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Greece, 2001 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1024 Date: 20 November 2001 GLP Unpublished
IIA 6.3/118	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Italy, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1025 Date: 20 November 2001 GLP Unpublished
IIA 6.3/119	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FPPC Date: 27 March 2001 GLP Unpublished
IIA 6.3/120	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in peaches at one site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S2-FPPC Date: 27 March 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 6.3/121	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1047 Date: 13 November 2001 GLP Unpublished
IIA 6.3/122	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in peaches at one site in Spain, 2001 Anadiag Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: R A1023 Date: 13 November 2001 GLP Unpublished
IIA 6.3/123	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in France, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/F1-FGLE Date: 31 May 2001 GLP Unpublished
IIA 6.3/124	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Northern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G1-FGLE Date: 21 May 2001 GLP Unpublished
IIA 6.3/125	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FGLE Date: 21 May 2001 GLP Unpublished

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 6.3/126	Balluff M.	2001	Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in lettuce at one greenhouse site in Spain, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/S1-FGLE Date: 21 May 2001 GLP Unpublished
IIA 6.3/127	Perny A.	2001	Determination of residues of Thiram 80 WG (80% Thiram) in lettuce under greenhouse in Northern and Southern Europe, 2001 Generated by: UCB S.A. Anadiag Submitted by: UCB S.A. (on 26/12/2001) Company file No.: A1028 Date: 21 November 2001 GLP Unpublished
IIA 6.3/128	Balluff M.	2001	Final report of the processing part: Determination of residues of Thiram after application of Thiram 80 WG (containing 80% Thiram) in apples at one site in Southern Germany, 2000 GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 20003003/G2-FPAP Date: 21 May 2001 GLP Unpublished

### B.8 Environmental fate and behaviour

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 7.1.1.1.1/0 2	Nag J.K, Regis R.R.	2000	Rate of degradation of <sup>14</sup> C-Thiram under aerobic conditions in three soils Uniroyal Chemical Company, Inc. + RCC Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 13/3/2000) Study Nr.: 98204 Date: March 2000 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 7.1.3/01	Nag J.K, Regis R.R.	2000	Aged-Soil Column Leaching of <sup>14</sup> C-Thiram in one soil - <b>Protocol</b> JSC International Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (Protocol submitted on 18/08/2000) Study Nr.: 2000-090 Date: 2000 GLP Unpublished
IIA 7.1.3/01	Nag J.K, Regis R.R.	2001	Aged-Soil Column Leaching of <sup>14</sup> C-Thiram in one soil JSC International Ltd. Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 15/02/2001) Study Nr.: 2000-090 Date: 12 February 2001 GLP Unpublished
IIA 7.2.1.3.2/02	Mamouni A.	1992	Degradation and metabolism of Thiram in aquatic systems - First amendment to report RCC Umweltchemie Generated by: UCB S.A. Submitted by: UCB S.A. (on 20/8/1999) Company file No.: RCC 303456 Date: 7 July 1992 GLP Unpublished
IIA 7.2.1.3.2/03	Wyss-Benz, M.	1995	Degradation and metabolism of Thiram in aquatic systems RCC Umweltchemie Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/8/1999) Company file No.: RCC 390205 Date: 29 November 1995 GLP Unpublished
IIA 7.2.1.3.2/04	Völkl S.	2000	<sup>14</sup> C-Ziram: route and rate of degradation in aerobic aquatic systems - <b>draft report</b> <sup>(*)</sup> RCC Umweltchemie Generated by: Ziram EU Task Force Submitted by: UCB S.A. (summary, submitted on 18/08/2000) Company file No.: RCC 744693 Date: 2000 GLP Unpublished

<sup>(\*)</sup> only some parts of the draft report are submitted (cover page + p. 13-15 + p. 56-57)

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 7.2.2	Förster B.	1992	Estimation of the Atmospheric Residence Time of Thiram using the Atkinson Method SCC Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/2/1999) Company file No. 152-009-Atkinson Date: 7 July 1992 Not GLP Unpublished
IIIA 9.1.3	Groß R.	1999	Calculation of the predicted environmental concentration of Thiram in soil SCC Generated by: UCB S.A. Submitted by: UCB S.A. (on 20/8/1999) Company file No.: 152-009/PEC <sub>soil</sub> Date: 18 August 1999 Not GLP Unpublished
IIIA 9.2.1	Schlüter W.	1999	Estimation of the leaching potential of Thiram by model calculations with PELMO (Pesticide leaching Model) Generated by: UCB S.A. Submitted by: UCB S.A. Company file No.: 152-009-PELMO Date: 30 March 1999 Not GLP Unpublished
IIIA 9.2.1	Moyle J	2001	PELMO estimates of the concentration of DCMS in percolate at 1 meter soil depth using the FOCUS groundwater scenarios Crompton Europe Ltd Not GLP Unpublished Submitted Dec 2001
IIIA 9.2.1/02	Wanner U	2002	FOCUS modelling of thiram and its soil metabolite DMCS in European groundwater Crompton Corporation USA Not GLP Unpublished Submitted Sept 2002

### B.9 Ecotoxicology

<b>Annex point/ reference number</b>	<b>Author(s)</b>	<b>Year</b>	<b>Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not</b>
IIA 8.1	Pritchard P.R	2001a	Study to determine the amount of thiram treated seed and seedlings when treated seed remains uncovered at drilling Crompton Europe Ltd GLP Unpublished Submitted Dec 2001

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.1	Pritchard P.R	2001b	Study to generate seed and seedling samples from thiram treated seed, broadcast onto the soil Crompton Europe Ltd GLP Unpublished Submitted Dec 2001
IIA 8.1	Pritchard P.R	2001c	Study to generate seed samples and seedlings for the determination of the loss of detectable thiram from drilled wheat seed Crompton Europe Ltd GLP Unpublished Submitted Dec 2001
IIA 8.1.1/01	Johnson A.J.	1999	Vitavax 200FF - Assessment to determine the effect on palatability and dietary toxicity in the pigeon Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: URO 013 - Uniroyal Ref. V.7.5.2.32 Date: 23 April 1999 GLP Unpublished
IIA 8.1.1/02	Grolleau G.	1998	Repellent effect of thiram on partridges under laboratory conditions Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Report Nr.: Uniroyal Ref. T.7.6.1.7 Date: 17 November 1998 Not GLP Unpublished
IIA 8.1.1/03	Zaják A.	1995	Acute oral toxicity of Biosild T on Japanese quail Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 25/A-5/1995 Date: 1995 GLP Unpublished
IIA 8.1.1/04	Zaják A.	1995	Acute oral toxicity of Biosild T on Mallard ( <i>Anas platyrhynchos</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 29/A-5/1995 Date: 1995 GLP Unpublished
IIA 8.1.2/01	Zaják A.	1995	The dietary LC <sub>50</sub> toxicity study of Biosild T with the Japanese Quail ( <i>Coturnix coturnix japonica</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 27/A-5/1995 Date: 1995 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.1.2/02	Zaják A.	1995	The dietary LC <sub>50</sub> toxicity study of Biosild T with the mallard ( <i>Anas platyrhynchos</i> ) Ecotoxicological Laboratory - Hungary Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 28/A-5/1995 Date: 1995 GLP Unpublished
IIA 8.1.3/01	Beavers J. B., Chafey K., Mitchell L.R., Jaber M.	1995	Thiram Technical: A one generation reproduction study with the Northern Bobwhite Wildlife International, Inc. Generated by: Thiram Task Force II. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 357-103 Date: 31 March 1995 GLP Unpublished
IIA 8.2/01	Peither A.	2000	Acute toxicity of Thiram Technical to rainbow trout ( <i>Oncorhynchus mykiss</i> ) in a 96-hour static test RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (range finding results submitted on 18/08/2000) Company file No.: 775552 Year: 2000 GLP Unpublished
IIA 8.2/01	Peither A.	2000	Acute toxicity of Thiram Technical to rainbow trout ( <i>Oncorhynchus mykiss</i> ) in a 96-hour static test RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 775552 Year: 2000 GLP Unpublished
IIA 8.2/04	-	1978	Fish toxicity Bayer AG Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: FO - 154 Year: 5 April 1978 GLP Unpublished
IIA 8.2/05	Chole P., McAllister W.A.	198 3	Acute toxicity of Thiurad <sup>®</sup> to Fathead Minnows ( <i>Pimephales promelas</i> ) ABC Labs Generated by: UCB S.A.. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 31114 Year: 27 December 1983 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.2/06	Forbis A.D.	1983	Acute toxicity of Thiurad <sup>®</sup> to Bluegill Sunfish ( <i>Lepomis macrochirus</i> ) ABC Labs Generated by: UCB S.A.. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 30561 Year: 25 August 1983 GLP Unpublished
IIA 8.2.2.2	Memmert U.	2001	Sublethal effects of Thiram 80WG to Rainbow trout ( <i>Oncorhynchus mykiss</i> ) after a fourfold application to a water-sediment system RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Company file No.: 804363 Year: 30 October 2001 GLP Unpublished
IIA 8.2.2.2	Memmert U.	2001	Sublethal effects of Ziram 76WG to Bluegill sunfish ( <i>Lepomis macrochirus</i> ) after a fourfold application to a water-sediment system RCC Ltd. Generated by: Ziram Task Force Submitted by: Ziram Task Force (submitted on 26/12/01) Study project No.: 811438 Date: 6 November 2001 GLP unpublished
IIA 8.2.4/02	Van der Kerken K.	1999	Acute toxicity of Thiram 80WG for <i>Daphnia magna</i> LISEC Generated by: UCB S.A. Submitted by: UCB S.A. (on 30/6/1999) Company file No.: WE-01-222 Year: 1999 Not GLP Unpublished
IIA 8.2.4/03	Van Leeuwen C.J., Maas-Diepeveen J.L., Niebeek G., Vergouw W.H.A., Griffioen P.S., Luijken M.W.	1985	Aquatic toxicological aspects of dithiocarbamates and related compounds. I. Short-term toxicity test Aquatic toxicology, Vol. 7, (1985), 145-164 Submitted by: UCB S.A. (on 30/6/1999) Not GLP Published
IIA 8.2.5	Memmert U.	2000	Ecological effects of Thiram 80WG in a freshwater mesocosm study RCC Ltd. Generated by: UCB S.A. Submitted by: UCB S.A. (on 11/07/2000) Report Nr.: 733454 Date: 16 June 2000 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.2.6	Jennings A.M., Jenkins C.	2001	Algal Growth Inhibition - 2 <sup>nd</sup> Amendment Huntingdon Research Centre Generated by: UCB S.A. Submitted by: UCB S.A. Report Nr.: Amendment to report UCB 442/921255 Date: 6 December 2001 GLP Unpublished
IIA 8.3.1	Kling A.	2000	Assessment of Side Effects of Thiram 80WG to the Honey Bee, <i>Apis mellifera</i> L. in the laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 18/08/2000) Report Nr.: 99452/01-BLEU Date: 17 May 2000 GLP Unpublished
IIA 8.3.2/01	Schuld M.	2000	Thiram 80 WG: Acute Toxicity to the Aphid Parasitoid, <i>Aphidius rhopalosiph</i> (Hymenoptera, Braconidae) DeStefani-Perez in the Laboratory 99452/01-NLAp Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Report Nr.: 99452/01-NLAp Date: 22 March 2000 GLP Unpublished
IIA 8.3.2/02	Kleiner R.	1991	Testing toxicity to beneficial arthropods Carabid beetle - <i>Poecilus cupreus</i> L. according to BBA Guideline VI, 23-2.1.8 BioChem GmbH Karlsruhe Generated by: UCB S.A. Submitted by: UCB S.A. (on 1/7/1999) Company file No.: 94 10 48 052 Date: 1991 GLP Unpublished
IIA 8.3.2/03	Kleiner R.	1992	Testing toxicity to beneficial arthropods Rove beetle - <i>Aleochara bilineata</i> Gyll. according to IOBC Guideline (Moreth & Naton) BioChem GmbH Karlsruhe Generated by: UCB S.A. Submitted by: UCB S.A. (on 1/7/1999) Company file No.: 94 10 48 053 Date: 1992 GLP Unpublished
IIA 8.3.2/04	IBACON	1995	Effects of Vitavax 200FF on the reproduction of <i>Aleochara bilineata</i> in the lab. Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr. 452070 - Uniroyal Ref. V.7.5.2.22 Date: 6 June 1995 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.3.2/05	IBACON	1995	Effects of Vitavax 200FF on <i>Poecilus cupreus</i> In the lab. Generated by: Uniroyal Chemical Limited Submitted by: Uniroyal Chemical Limited Project Nr.: 451006 - Uniroyal Ref. V.7.5.2.23 Date: 31 May 1995 GLP Unpublished
IIA 8.3.2/06	Friedhelm Kemmeter	2000	Thiram 80 WG: Toxicity to the Green Lacewing, <i>Chrysoperla carnea</i> Steph. (Neuroptera, Chrysopidae) in the Laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 18/8/2000) Project Nr.: 99452/01-NLCC Date: 23 June 2000 GLP Unpublished
IIA 8.3.2/07	Röhlig R., Kästner A.	2001	Toxicity of Thiram 80WG to larvae of the ladybird <i>Coccinella septempunctata</i> L. under laboratory conditions BioChem agrar Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 00 10 48 076 Date: 16 January 2001 GLP Unpublished
IIA 8.3.2/08	Schuld M.	2001	Thiram 80 WG: An extended study to evaluate the effects on the Aphid Parasitoid, <i>Aphidius rhopalosiphi</i> (Hymenoptera, Braconidae) DeStefani-Perez in the Laboratory GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NEAp Date: 6 November 2001 GLP Unpublished
IIA 8.3.2/09	Stäbler P.	2001	Thiram 80WG: An extended Laboratory study to evaluate the effect on the ladybird <i>Coccinella septempunctata</i> L. (Coleoptera, Coccinellidae) GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NECs Date: 6 November 2001 GLP Unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIA 8.3.2/10	Stäbler P.	2001	Thiram 80WG: An extended laboratory study to evaluate the effects on the green lacewing, <i>Chrysoperla carnea</i> Steph. (Neuroptera, Chrysopidae) GAB Biotechnologie GmbH Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: 99452/01-NECc Date: 27 November 2001 GLP Unpublished
IIA 8.5	Wachter S.	2000	Assessment of the side effects of Thiram 80WG on the activity of the soil microflora GAB Biotechnologie GmbH Generated by: UCB S.A., Uniroyal Chemical Limited Submitted by: UCB S.A., Uniroyal Chemical Limited (on 8/6/2000) Report Nr.: 99452/01-ABMF Date: 29 February 2000 GLP Unpublished
IIA 8.7	Van der Kerken K.	1999	Activated sludge respiration inhibition test of Thiram LISEC Generated by: UCB S.A. Submitted by: UCB S.A. (on 8/6/2000) Project Nr.: WE-09-041 Year: 1999 GLP Unpublished
IIIA 10.1 IIIA 10.3	Grolleau G.	2000	Repulsive efficiency of Thiram used as seed treatment for the red-legged partridge Generated by: UCB S.A. Submitted by: UCB S.A. (submitted on 11/07/2000) Company file No.: - Date: 9 June 2000 Not GLP unpublished
IIIA 10.1.3/01	Beavers J. B., Haberlein D., Grimes J., Jaber M.	1995	Thiram Technical: A palatability/repellency study with the Mallard under multiple choice conditions Generated by: Thiram Task Force II Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 357-106 Date: 14 March 1995 GLP unpublished
IIIA 10.1.3/02	Beavers Joann B., Haberlein Doug, Grimes Jennie, Jaber Mark	1995	Thiram Technical: A palatability/repellency study with the Northern Bobwhite ( <i>Colinus virginianus</i> ) under multiple choice conditions Generated by: Thiram Task Force II Submitted by: UCB S.A. (on 30/6/1999) Company file No.: 357-105 Date: 14 March 1995 GLP unpublished

Annex point/ reference number	Author(s)	Year	Title Source (where different from company) Company, Report No. GLP or GEP status (where relevant) Published or not
IIIA 10.3.1	Thompson H.M	2001a	Thiram: palatability of treated seed to wood mice Central Science Lab, UK Submitted by Crompton Europe Ltd GLP Unpublished Submitted Dec 2001
IIIA 10.3.1/01	Thompson H.M.	2001	Thiram: Palatability of treated seeds to wood mice ( <i>Apodemus sylvaticus</i> ) Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: HT1200 Date: 21 June 2001 GLP Unpublished
IIIA 10.3.1/02	Thompson H.M.	2001	Additional analysis of data from report: Thiram: Palatability of treated seeds to wood mice ( <i>Apodemus sylvaticus</i> ) Generated by: UCB S.A. Submitted by: UCB S.A. (on 26/12/2001) Study Nr.: HT1200 Date: 10 December 2001 GLP Unpublished

## APPENDIX IV

## List of uses supported by available data

## THIRAM

Crop and/ or situation  (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days)  (l)	Remarks:  (m)
					Type  (d-f)	Conc. of as  (i)	method kind  (f-h)	growth stage & season  (j)	number min max  (k)	interval between applications  (min)	kg as/ha  min max	water l/ha  min max	kg as/ha  min max		
Apple	All Europe	Thiram 80 WG	F	<i>Venturia inaequalis</i> (Scab)	WG	800	foliar	First application on young leaves	4 (treat- ments again st <i>Monili a</i> and <i>Gloeo- sporiu m</i> inclu- ded)	7-14 days	0.1 to 0.24	-	2,4	42	
Apple	All Europe	Thiram 80 WG	F	<i>Monilia</i>	WG	800	foliar	First application before flowering	2	7-14 days	0.16 to 0.24	-	2,4	42	
Apple	All Europe	Thiram 80 WG	F	<i>Gloeosporium Gloeodes pomigena Schizothirium pomi</i>	WG	800	foliar	First application half June	4 (treat- ments again st <i>Monili a</i> and <i>Gloeo- sporiu m</i> inclu-	7-14 days	0.16 to 0.2	-	2,0	42	

Thiram

APPENDIX IV  
List of uses supported by available data  
07 April 2003

Crop and/or situation (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days) (l)	Remarks: (m)
					Type	Conc. of as	method kind	growth stage & season	number min max	interval between applications (min)	kg as/ha min max	water l/ha min max	kg as/ha min max		
					(d-f)	(i)	(f-h)	(j)	(k)						
Pear	All Europe	Thiram 80 WG	F	<i>Venturia pirina</i> (Scab) <i>Stemphylium vesicarium</i>	WG	800	foliar	First application on young leaves	4	7-14 days	0.1 to 0.24	-	2,4	42	
Pear	All Europe	Thiram 80 WG	F	<i>Monilia</i>	WG	800	foliar	First application before flowering	2	7-14 days	0.16 to 0.24	-	2,4	42	
Pear	All Europe	Thiram 80 WG	F	<i>Gloeosporium</i> <i>Gloeodes pomigena</i> <i>Schizothirium pomi</i>	WG	800	foliar	First application half June	4	7-14 days	0.16 to 0.2	-	2,00	42	
Almond	South-Europe	Thiram 80 WG	F	<i>Monilia spp.</i> <i>Coryneum</i> <i>Taphrina</i>	WG	800	foliar	Winter application and during flowering	3	7-14 days	0.16 to 0.24	-	2,4	150	
Apricot	South- Europe	Thiram 80 WG	F	<i>Coryneum beijerinckii</i> <i>Monilia spp.</i> <i>Fusicladium</i>	WG	800	foliar	First application during leaf fall then before flowering	3	7-14 days	0.16 to 0.24	-	2,4	42	
Peach	All Europe	Thiram 80 WG	F	<i>Monilia spp</i> <i>Fusicladium.</i>	WG	800	foliar	First application before flowering	3	7-14 days	0.16 to 0.24	-	2,4	42	
Peach	All Europe	Thiram 80 WG	F	<i>Taphrina deformans</i>	WG	800	foliar	Autumn/ Winter treatment	2		0.16 to 0.24 (0.3 to 0.4 kg a.s./hl)	-	2,4	42	

Crop and/ or situation  (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days)  (l)	Remarks:  (m)
					Type	Conc. of as	method kind	growth stage & season (j)	number min max  (k)	interval between applications (min)	kg as/ha  min max	water l/ha  min max	kg as/ha  min max		
					(d-f)	(i)	(f-h)								
												for low volume spray at 500 l/ha)			
Peach	All Europe	Thiram 80 WG	F	<i>Coryneum beijerinckii (Stigmina carpophila) Fusicoccum amygdali</i>	WG	800	foliar	Autumn/ Winter treatment	2		0.16 to 0.24 (0.3 to 0.4 kg a.s./hl for low volume spray at 500 l/ha)	-	2,4	42	
Wine grapes	All Europe	Thiram 80 WG	F	<i>Botrytis Colletotrichum</i>	WG	800	foliar	First application during flowering	3		0.16 to 0.32	-	3,2	35	
Strawberry (indoor & outdoor)	All Europe	Thiram 80 WG	F G	<i>Botrytis Colletotrichum Mycosphaerella</i>	WG	800	foliar	During flowering Repeat every 7 - 14 days if necessary	3		0.16 to 0.32	-	1.6-2.4	7	
Ornamentals (indoor & outdoor)	All Europe	Thiram 80 WG	F G	<i>Botrytis</i>	WG	800	foliar		as neede d	7 days	0.2 to 0.32	-	3,2	-	
Ornamentals bulbs	All Europe	Thiram 80 WG	F	<i>Sclerotinia</i>	WG	800	foliar	after flowering	as neede d	7-10 days	0.32	-	3,2	-	
Peony	All Europe	Thiram 80 WG	F	<i>Botrytis</i>	WG	800	rot soaking	-	1		1.5	-	-	-	
Seed	All Europe		F	<i>Bird repellent</i>	FS	533	seed treatment	Seed dressing	1		-	-	0,2		

Crop and/ or situation  (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days)  (l)	Remarks:  (m)
					Type	Conc. of as	method kind	growth stage & season	number min max	interval between applications (min)	kg as/ha min max	water l/ha min max	g as/100 kg seed min max		
					(d-f)	(i)	(f-h)	(j)	(k)						
Afalfa	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Barley	All Europe		F	soil / seed borne fungi, animal repellency	FS	533	seed treatment	-	-	-	-	-	160		
Beans	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Beet (leaf, sugar)	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	480		
Cabbage	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Celery	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Cucumber	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Grass	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Leek	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	5600		
Lettuce	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Linseed	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	300		
Lupin	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Maize	All Europe		F	soil / seed borne fungi, animal repellency	FS	533	seed treatment	-	-	-	-	-	160		

Crop and/ or situation  (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days)  (l)	Remarks:  (m)
					Type	Conc. of as	method kind	growth stage & season	number min max	interval between applications (min)	kg as/hl	water l/ha	g as/100 kg seed		
					(d-f)	(i)	(f-h)	(j)	(k)	min max	min max	min max			
Oats	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Oilseed rape	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	440		
Onion	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Parsley	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Peas	All Europe		F	soil / seed borne fungi, animal repellency	FS	533	seed treatment	-	-	-	-	-	160		
Poppy	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Potato	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	80		
Radish	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Rye	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Spinach	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Turnip	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	400		
Vetch	All Europe		F	soil / seed borne fungi	FS	533	seed treatment	-	-	-	-	-	160		
Wheat	All Europe		F	soil / seed borne fungi, animal repellency	FS	533	seed treatment	-	-	-	-	-	160		

Crop and/ or situation  (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days)  (l)	Remarks:  (m)
					Type	Conc. of as	method kind	growth stage & season (j)	number min max  (k)	interval between applications (min)	kg as/ha min max	water l/ha min max	g as/100 kg seed min max		
					(d-f)	(i)	(f-h)								
Wheat	All Europe	Vitavax 200FF	F	Soil/seed borne fungi	FS	200							60		
Barley	All Europe	Vitavax 200FF	F	Soil/seed borne fungi	FS	200							60		
Oats	All Europe	Vitavax 200FF	F	Soil/seed borne fungi	FS	200							60		
Rye	All Europe	Vitavax 200FF	F	Soil/seed borne fungi	FS	200							60		
Triticale	All Europe	Vitavax 200FF	F	Soil/seed borne fungi	FS	200							60		

**Remarks:**

- (a) For crops, the EU and Codex classifications (both) should be used; where relevant, the use situation should be described (e.g. fumigation of a structure)
- (b) Outdoor or field use (F), glasshouse application (G) or indoor application (I)
- (c) e.g. biting and suckling insects, soil born insects, foliar fungi, weeds
- (d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR)
- (e) GCPF Codes - GIFAP Technical Monograph No 2, 1989
- (f) All abbreviations used must be explained
- (g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench
- (h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plants - type of equipment used must be indicated

- (i) g/kg or g/l
- (j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application
- (k) The minimum and maximum number of application possible under practical conditions of use must be provided
- (l) PHI - minimum pre-harvest interval
- (m) Remarks may include: Extent of use/economic importance/restrictions