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MEMORANDUM

Date: September 14, 2009

SUBJECT: Difenoconazole: Occupational and Residential Risk Assessment to Support the Section 3 Request for Registration of Difenoconazole on Bulb Vegetables, Brassica Leafy Vegetables, Cucurbit Vegetables, Citrus Fruits, Grapes, and Tree Nuts.

Ingredient: Difenocoanzole (128847)

PC Code: 128847	**DP Barcode:** D367384
Decision No.: 403560	**Registration No.** 100-1262
Petition No.: 8F7442	**Regulatory Action:** Section 3 Registration
Assessment Type: ORE	**Re-registration Case No.:** 'None'
TXR No.: NA	**CAS No.:** 119446-68-3
MRID: NA	**40 CFR:** 180.475

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Introduction

The registrant, Syngenta Crop Protection Inc., requests the registration of the fungicide Difenoconazole. This memorandum addresses risk from occupational and residential exposure resulting from proposed uses.

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1.0 Executive Summary

Background and Purpose:

The enclosed occupational and residential exposure assessment is being conducted as part of EPA's human health risk assessment for the proposed Section 3 registration for use of Difenoconazole; [1-[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4methyl-1,3-dioxilan-2-ylmethyl]-1H-1,2,4-triazole]. Difenoconozole is a broad spectrum fungicide belonging to the triazole group of fungicides (group 3). The mode of action of difenoconazole is as a demethylation inhibitor of sterol biosyntheses which disrupts membrane synthesis by blocking demethylation. In this registration action, the formulation, (Inspire™ Fungicide: EPA Reg. No. 100-1262) is being registered as a fungicide on the following raw agricultural and processed commodities: Bulb Vegetables, Brassica Leafy Vegetables, Cucurbit Vegetables, Citrus Fruits, Grapes, and Tree Nuts.

Use Patterns and Formulations:

- **(Inspire™ Fungicide: EPA Reg. No. 100-1262)**

Difenoconazole; Syngenta label, (Inspire™ Fungicide: EPA Reg. No. 100-1262) is a 23.2% active ingredient emulsifiable concentrate that may be applied via aerial, ground boom, airblast, and chemigation equipment. Proposed labels state that; difenoconazole should be applied prior to disease onset, at early bloom, or when green leaf tissue becomes visible. Furthermore, labels state that no more than two consecutive applications are to be made before alternation with a different mode of action fungicide.

The proposed product (Inspire™ Fungicide: EPA Reg. No. 100-1262) is an emulsifiable concentrate (EC) containing 23.2% active ingredient.

Application rates for broadcast boom, aerial, airblast and chemigation equipment range from a minimum of 0.08 lbs active ingredient (ai)/ acre per application, to a maximum of 0.114 lbs of active ingredient (ai) / acre per application, with minimum pre-harvest intervals (PHIs) of 0 days for citrus fruits and cucurbit vegetables, 1 day for Brassica leafy vegetables, 7 days for grapes and bulb vegetables, and 14 days for Tree nuts. Furthermore, a 14 to 21 day RTI is specified.

There is a potential for short- and intermediate-term occupational exposure to difenoconazole during mixing, loading, and application activities, however chronic exposure is not expected for the proposed use patterns.

Hazard Profile:

Short- and Intermediate-term dermal and inhalation endpoints were identified based on a reduction in body-weight gain of females prior to mating, gestation and lactation. Long-term dermal and inhalation endpoints were based on cumulative decreases in body weight gains.

A dermal absorption factor of 15.3% was observed due to a rat skin study using *in vivo* method.

Evidence for carcinogenicity was seen in only one species, mice, where liver tumors were induced at doses which were considered to be excessively high for carcinogenicity testing. No evidence of carcinogenicity was seen in rats. Furthermore, the cancer NOAEL is higher than the chronic NOAEL; therefore a chronic assessment is protective of cancer effects.

The toxicological database for difenoconazole is adequate to support Section 3 registration and permanent tolerances. There are no toxicology data gaps.

Endpoint Selection:

On 08-SEP-1998, HED's Hazard Identification Assessment Review Committee (HIARC) evaluated the toxicology data base of difenoconazole and re-assessed the RfD established in 1994, as well as the toxicological endpoints for the dietary and occupational exposure risk assessments that were selected in 1994. At this meeting, the HIARC also addressed the potential enhanced sensitivity of infants and children from exposure to difenoconazole as required by the Food Quality Protection Act (FQPA) of 1996 (HED Doc. No. 012873, 22-SEP-1998).

In July 2007, RAB1 toxicologists and the risk assessment team reevaluated the endpoints selected by the HIARC since new studies were submitted. HED toxicologists and the risk assessment team also reevaluated the FQPA assessments. The risk assessment team concluded that the default 10x FQPA Safety Factor (SF) could be reduced to 1x when assessing dietary and residential exposures based on:[1]

- Completeness of the toxicological database for difenoconazole;
- Developmental toxicity studies showed no increased sensitivity in fetuses as compared to maternal animals following *in utero* exposures in rats and rabbits, and pre/post natal exposure in the two generation reproduction toxicity study in rats;
- No evidence of abnormalities in the development of the fetal nervous system in the pre/post natal studies;
- The developmental neurotoxicity study is not required; and
- There are no residual uncertainties in the toxicology database.

The toxicological doses relevant to this assessment are summarized in tables 2 and 3.

Cancer Risk:

A chronic Margin of Exposure assessment is considered adequate for a cancer assessment. Therefore no chronic exposure is expected.

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[1] For details see HED's previous risk assessment titled: [(PP#: 6F7115. Difenoconazole in/on Fruiting Vegetables, Pome Fruit, Sugar Beets, Tuberous and Corm Vegetables, and Imported Papaya. **Health Effects Division (HED) Revised Risk Assessment**. DP#: 346591. PC Code: 128847. Decision#: 371264). Dated, 9-NOV-2007].

Margin of Exposure

A Margin of Exposure of 100 is considered adequate to protect agricultural workers.

Residential Non-Cancer Risks

Currently, no new residential risk assessment is being conducted.

Occupational Non-Cancer Risks

- **Occupational Handler Risk Summary:**

HED's level of concern for non-cancer risks (i.e., target level of Margins of Exposure (MOE)) for Difenoconazole is 100 for occupational exposure. Non-cancer occupational exposure and risk resulting in MOEs greater than or equal to 100 are not of concern to HED. Furthermore, no chemical-specific handler exposure data were submitted in support of the registration of difenoconazole. It is the policy of the HED to use data from the Pesticide Handlers Exposure Database (PHED) Version 1.1 as presented in PHED Surrogate Exposure Guide (8/98) to assess handler exposures for regulatory actions when chemical-specific handler monitoring data are not available (HED Science Advisory Council for Exposure Draft Policy #7, dated 1/28/99).
HED believes occupational pesticide handlers will be exposed to short-term duration (1 - 30 days) exposures, but not to intermediate-term (1 - 6 months) duration exposures. Although multiple applications are possible, they are separated by 10 - 14 day retreatment intervals. No more than 2 consecutive applications should be made. It is unlikely that pesticide handlers would be exposed continuously for 30 days or more. However, because the short-term and intermediate-term toxicological endpoints are the same (1.25 mg/kg bw/day), the assessment of short-term exposure and risk is adequate to describe risk from an intermediate-term exposure should that occur. Therefore, the No Observable Adverse Effect Level (NOAEL) of 1.25 mg/kg bw/day was identified. The effects were decreased body weight in females prior to mating, gestation, and lactation. Since the toxic effects were maternal (i.e., not fetal effects), a 70 kg body weight is used to calculate exposure/dose.

- For mixer/loaders using open-pour loading of a liquid formulation (EC), as well as applicators using open-cab ground-boom, airblast, chemigation, and aerial equipment, short- and intermediate-term dermal, inhalation, and combined MOEs were greater than the level of concern (MOE > 100) while observing label handler PPE instructions and therefore not of concern to HED for this registration action.

Occupational Post-Application Risks

- **Occupational Post-Application Risk Summary:**

It is possible for agricultural workers to have post-application exposure to pesticide residues during the course of typical agricultural activities. HED in conjunction with the Agricultural Re-entry Task Force (ARTF) has identified a number of post-application agricultural activities that

may occur and which may result in post-application exposures to pesticide residues. HED has also identified transfer coefficients (TC) (cm^2/hr) relative to the various activities which express the amount of foliar contact over time, during each of the activities identified.

For this registration action HED maintains that a margin of exposure (MOE) of 100 is adequate to protect agricultural workers from post-application exposures. For all short-term post-application activities in this registration action, MOEs were ≥ 100 and therefore not of concern.

HED assumes that inhalation exposures are minimal following outdoor applications of an active ingredient with low vapor pressure. Since the proposed uses of difenoconazole are applied only in outdoor settings and difenoconazole has a low vapor pressure, post-application inhalation exposures and risks were not assessed.

2.0 Use Profile

A summary of the proposed use profile is presented in **Table 1.**

Table 1. Summary of Directions for Use of Acetochlor.

Product [EPA File Reg. No.]	Formulation type	Crops	Application Method	Max. Application. Rate (lb ai/Acre)	Timing of Application
Inspire™ Fungicide: (EPA Reg. No. 100-1262) **23.2% ai**	Emulsifiable Concentrate	Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts	Ground boom, Aerial, Airblast, Chemigation	0.07 - 0.114	Post-emergence

3.0 Hazard Profile

Difenoconazole is classified in Acute Toxicity Category III. As such, the interim Worker Protection Standard (WPS) restricted entry interval of 12 hours is adequate to protect agricultural workers from exposure to difenoconazole from the proposed use on Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts. The acute toxicity profile for difenoconazole is complete and is summarized below in **Table 2**.

Table 2: Acute Toxicity Profile - Difenoconazole

Guideline No.	Study Type	MRID(s)	Results	Toxicity Category
870.1100	Acute oral rat	42090006	LD_{50} = 1450 mg/kg	III
870.1200	Acute dermal rat	42090007	LD_{50} > 2010 mg/kg	III
870.1300	Acute inhalation rat	42090008	LC_{50} > 3.3 mg/L	III

870.2400	Acute eye irritation rabbit	42090009	Mild ocular irritation reversible in 7 days	III
870.2500	Acute dermal irritation rabbit	42090010	Slight irritation	IV
870.2600	Skin sensitization mouse	42090011, 42710004	Negative	N/A

In an acute neurotoxicity study in rats, reduced fore-limb grip strength was observed on day 1 in males and clinical sign of neurotoxicity in females at the limit dose of 2000 mg/kg. This effect in males is considered as transient since it was not observed at later observation points and high toxicity in females. In a subchronic neurotoxicity study in rats decreased hind limb strength was observed only in males, which was considered as nonspecific in nature. Therefore, difenoconazole is not considered neurotoxic. The newly submitted mutagenicity studies on difenoconazole and its metabolites (CGA 205374 and CGA 205375) were negative for mutagenicity in various metagenic assays. Therefore, it supports the previous conclusion that difenoconazole is not mutagenic. No systemic toxicity was observed at the limit dose in a 28-day dermal toxicity study in rats. A dermal absorption of 15.3% was observed through rat skin using *in vivo* method. Chronic effects in the rat study are seen as cumulative decreases in body weight gains. Evidence for carcinogenicity was seen in only one species, mice, where liver tumors were induced at doses which were considered to be excessively high for carcinogenicity testing. No evidence of carcinogenicity was seen in rats.

Chronic feeding studies in mice showed decreased body-weight gains in male and female mice at termination. Treatment-related non-neoplastic lesions were confined to the liver and were supported by the clinical chemistry data at a level of 300 ppm (46.29 and 57.79 mg/kg/day for males and females, respectively). Liver tumors were observed in mice at 300 ppm and higher; however, based on the excessive toxicity observed at the two highest doses of 2500 and 4500 ppm (females terminated after two weeks due to excessive toxicity resulting in moribundity and death), the absence of tumors at the two lower doses of 10 and 30 ppm and the absence of genotoxic effects, HED's Cancer Peer Review Committee (CPRC) recommended for a cancer classification of C (**possible human carcinogen**). A margin-of-exposure (MOE) approach in risk assessment was advocated by the CPRC utilizing the no-observable-adverse-effects-level (NOAEL) of **30** ppm (**4.7** and **5.6** mg/kg/day in males and females, respectively) and the lowest-observable-adverse-effects-level (LOAEL) of **300** ppm (**46.3** and **57.8** mg/kg/day in males and females, respectively) from the mouse study using only those biological endpoints which were related to tumor development (*i.e.*, hepatocellular hypertrophy, liver necrosis, fatty changes in the liver and bile stasis) (Memo, Jess Rowland and Esther Rinde, 27-JUL-1994; Memo, PV Shah, 1-March-2007, HED Doc. No. 005453).

The doses and toxicological endpoints selected for various exposure scenarios applicable to this risk assessment are summarized in **Table 3.**

Table 3: Summary of Toxicological Doses and Endpoints for Difenoconazole for use in Non-Occupational Human-Health Risk Assessments.

Exposure Scenario	Point of Departure	Uncertainty/FQPA Safety Factors	RfD, PAD, LOC for Risk Assessment	Study and Relevant Toxicological Effects
Dermal Short- and Intermediate-Term (1-30 days and 1-6 months)	Oral NOAEL = 1.25 mg/kg/day Dermal Absorption factor=15.3%	$UF_A = 10X$ $UF_H = 10X$ $UF_{FQPA} = 1X$	Residential LOC for MOE<100	**Reproduction and fertility effects (rat; dietary)** Offspring LOAEL = 12.5 mg/kg/day based on reduction in body-weight gain of F_0 females prior to mating, gestation and lactation.
Dermal Long-Term (>6 months)	Oral NOAEL = 0.96 mg/kg/day Dermal Absorption factor=15.3%	$UF_A = 10X$ $UF_H = 10X$ $UF_{FQPA} = 1X$	Residential LOC for MOE<100	**Combined chronic toxicity/carcinogenicity (rat; dietary)** LOAEL = 24.1/32.8 mg/kg/day (M/F) based on cumulative decreases in body-weight gains.
Inhalation (Short- and Intermediate-term)	Oral NOAEL = 1.25 mg/kg/day 100% inhalation absorption assumed	$UF_A = 10X$ $UF_H = 10X$ $UF_{FQPA} = 1X$	Residential LOC for MOE<100	**Reproduction and fertility effects (rat; dietary)** Offspring LOAEL = 12.5 mg/kg/day based on reduction in body weight gain of F_0 females prior to mating, gestation and lactation.
Inhalation (Long- term)	Oral NOAEL = 0.96 mg/kg/day 100% inhalation absorption assumed	$UF_A = 10X$ $UF_H = 10X$ $UF_{FQPA} = 1X$	Residential LOC for MOE<100	**Combined chronic toxicity/carcinogenicity (rat; dietary)** LOAEL = 24.1/32.8 mg/kg/day (M/F) based on cumulative decreases in body weight gains.
Cancer (oral, dermal, inhalation)	Difenoconazole is classified as a Group C, possible human carcinogen with a non-linear (MOE) approach for human risk characterization (CPRC Document, 7/27/94, Memo, P. V. Shah dated March 3, 2007, HED Doc. No. 0054532).			

Abbreviations: UF = uncertainty factor, UF_A = extrapolation from animal to human (interspecies), UF_H = potential variation in sensitivity among members of the human population (intraspecies), UF_{FQPA} = FQPA Safety Factor, NOAEL = no-observed-adverse-effect level, LOAEL = lowest-observed-adverse-effect level, RfD = reference dose (a = acute, c = chronic), PAD = population-adjusted dose, MOE = margin of exposure, LOC = level of concern.

4.0 Occupational Exposure and Risk

Handler Exposure

The proposed uses associated with this action are for the use of difenoconazole (Inspire™ Fungicide: EPA Reg. No. 100-1262) on Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts. Difenoconazole; [1-[2-[2-chloro-4-(4-chlorophenoxy) phenyl]-4methyl-1,3-dioxilan-2-ylmethyl]-1H-1,2,4-triazole], is a broad spectrum fungicide belonging to the triazole group of fungicides (group 3). The mode of action of difenoconazole is as a demethylation inhibitor of sterol biosyntheses which disrupts membrane synthesis by blocking demethylation.

For this registration action, applications using aerial, ground, chemigation, and airblast equipment are allowed.

Based on the number of seasonal applications indicated on this product label, and information provided by the registrant, handler exposures are expected to be short-term in duration. The quantitative exposure/risk assessment developed for commercial handlers is based on the following exposure scenarios:

- Open Mixing/Loading: Groundboom, Aerial, Chemigation, and Airblast; (Emulcifiable-Concentrate formulation to Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts).

- Open Mixing/Loading/Applying: Groundboom (Emulcifiable-Concentrate formulation to Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts).

- Applying: Groundboom, Aerial, Chemigation, Airblast; (Emulcifiable-Concentrate formulation to Brassica leafy, bulb, and cucurbit vegetables, Citrus fruits, Grapes, Pistachios, and Tree Nuts).

No chemical-specific handler exposure data were submitted in support of this registration. It is the policy of the HED to use data from the Pesticide Handlers Exposure Database (PHED) Version 1.1 as presented in PHED Surrogate Exposure Guide (8/98) to assess handler exposures for regulatory actions when chemical-specific monitoring data are not available (HED Science Advisory Council for Exposure Standard Operating Procedure #7, dated 1/28/99).

The results of the occupational exposure and risk assessment indicate that risks are not of concern (MOE $\geq$100) while wearing label specified PPE. Please see **table 4** for details.

Data and Assumptions for Handler Exposure Scenarios

Unit Exposures:

- Chemical-specific data for assessing exposure during pesticide handling activities were not submitted to the Agency in support of this Section 3 application. It is HED policy to use data from the Pesticide Handlers Exposure Database (PHED) Version 1.1 to assess handler exposures for regulatory actions when chemical-specific data are not available (HED Science Advisory Council for Exposure, SOP Number .007, January 1999).

Area Treated:

- The treatable acreage for the crops listed in table 1, varied according to the broadcast equipment used. Please see [Appendix A: Occupational-Agricultural Handler], for details. Note: acreage taken from: (HED Exposure Science Advisory Committee SOP Number 9.1).

Application Rate:

- **(Inspire™ Fungicide: EPA Reg. No. 100-1262)**

The proposed product (Inspire™ Fungicide: EPA Reg. No. 100-1262) is an emulsifiable concentrate (EC) containing 23.2% active ingredient. This formulation is distributed utilizing ground boom, aerial, broadcast and chemigation equipment. The application rates for all distribution equipment range from a minimum of 0.07 pounds per acre per application to a maximum of 0.114 pounds per acre per application.

Exposure Duration:

- It is unlikely that pesticide handlers would be exposed continuously for 30 days or more. However, because the short-term and intermediate-term toxicological endpoints are the same (1.25 mg/kg bw/day), the assessment of short-term exposure and risk is adequate to describe risk from an intermediate-term exposure should that occur. MOEs for the short-term scenarios have been estimated within.

Body Weight:

- The average adult body weight of 70 kg was used for estimating exposure and risk.

Handler Exposure Calculations

Handler risks were calculated using the Margin of Exposure (MOE) which is a ratio of the calculated daily dose to the NOAEL of concern. Daily dose values are calculated using relevant application parameters (i.e., rate and area treated) along with unit exposures. Exposures are then adjusted for body weight and absorption factors as appropriate to calculate dose levels.
Daily Exposure: The daily exposures were calculated as described below.

- ***Daily exposure = (Unit exposure x application rate x Daily Area Treated)***

Where:

Daily Exposure	=	Amount (mg ai/day) deposited on the surface of the Skin that is available for dermal absorption or amount inhaled that is available for inhalation absorption;
Unit Exposure	=	Unit exposures (mg ai/lb ai) derived from August 1998 PHED data, or other appropriate data;
Application Rate	=	lbs ai per acre;
Daily Area Treated	=	acres per day

Daily Dose: The daily dose (inhalation or dermal) was calculated by adjusting the daily dermal and inhalation exposure values by body weight and accounting for dermal or inhalation absorption. For adult handlers using acetochlor, an average body weight of 70 kg was used.

- ***Daily Dose = (Daily exposure x absorption factor)/ Bodyweight***

Where:

Daily Dose	=	Absorbed dose (mg ai./kg body weight/day);
Daily Exposure	=	Amount (mg ai/day) deposited on the surface of the skin or inhaled;
Absorption Factor	=	100% for inhalation
Body Weight	=	70 kg

Margins of Exposure: The daily doses were then compared to the NOAELs to assess the risk as an MOE. The MOEs were calculated using the formula below:

- ***MOE = NOAEL/Dose***

Where:

MOE	=	Margin of Exposure (unit less)
Dose	=	mg/kg/day
NOAEL	=	No Observed Adverse Effects Level (mg/kg/day)

Handler Exposure Summary

Exposure and risk assumptions and MOEs for occupational handlers (Agricultural use) are summarized in **Table 4.**

Table 4: Summary of Exposure & Risk to Occupational Handlers

Unit Exposure[1]			Appl. Rate[2] lb ai/unit	Units Treated[3]	Avg. Daily Exposure[4] mg ai/kg bw/day Baseline + Gloves		MOE[5] Dermal + Inhalation	
Dermal mg ai/lb handled		Inhal. µg ai/lb handled						
BL[7]	BL/Gloves						BL[7]	BL/Gloves
Open Mixer/Loader "Aerial" –Liquid								
2.9	0.023	Inhal. 1.2	0.114 lb ai/A	350 A/day	Dermal .0020	Inhal. .0007	**4.9**	460
Open Mixer/Loader "Groundboom" Open Cab –Liquid								
2.9	0.023	Inhal. 1.2	0.114 lb ai/A	80 A/day	Dermal .0005	Inhal. .0002	**22**	2200
Open Mixer/Loader/Applicator "Groundboom" Open Cab –Liquid								
0.37	0.057	1.3	0.114 lb ai/A	80 A/day	Dermal .0011	Inhal. .0002	170	960
Open Mixer/Loader "Airblast" –Liquid								
2.9	0.023	Inhal. 1.2	0.114 lb ai/A	40 A/day	Dermal .00023	Inhal. .00008	**43**	4100
Open Mixer/Loader "Chemigation" –Liquid								
2.9	0.023	Inhal. 1.2	0.114 lb ai/A	350 A/day	Dermal .0020	Inhal. .0007	**4.9**	460
Applicator "Aerial" –Closed cockpit (EC)[6]								
0.005	0.0022	Inhal. 0.07	0.114 lb ai/A	350 A/day	Dermal .0002	Inhal. .00004	2600	5400
Applicator "Groundboom" – Open Cab (EC)								
0.014	0.014	Inhal. 0.074	0.114 lb ai/A	80 A/day	Dermal .0003	Inhal. .00010	3300	3300
Applicator "Airblast" – Open Cab (EC)								
0.36	0.24	Inhal. 4.5	0.114 lb ai/A	40 A/day	Dermal .0024	Inhal. .0003	320	470

Note:
1 Handler Exposure Database Version 1.1, Surrogated Exposure guide August 1998 [Inhal. = Inhalation. Units = mg a.i./pound of active ingredient handled].
2. Appl. Rate. = Taken from product labeling.
3. Units Treated are taken from "Standard Values for Daily Acres Treated in Agriculture"; ExpoSAC SOP No. 9.1. Revised
4. Average Daily Dose (ADE) = Unit Exposure * Applic. Rate * Units Treated *DA (5.3%) ÷ 70 kg Body Weight
5. MOE = Margin of Exposure = NOAEL ÷ ADE. NOAEL = 1.25 mg/kg/day
6. (EC) = Emulsifiable Concentrate
7. BL = Baseline (single layer clothing with no gloves)

Note: Margine of Exposures (MOEs) for ***"Baseline"*** Open Mixer/Loader involving Aerial, Groundboom, Airblast, and Chemigation do not exceed HEDs level of concern (MOE ≤ 100), however label specific directions call for PPE equipment (***Gloves***). Under these circumstances which are noted in table #4, MOEs exceed HEDs level of concern.

5.0 Occupational Post-application Exposure and Risk

HED uses the term "post-application" to describe exposures to individuals that occur as a result of being in an environment that has been previously treated with a pesticide (also referred to as re-entry exposure). HED believes that there are distinct job functions or activities that occur in previously treated areas. These job functions (e.g., the kinds of jobs to cultivate a crop), the nature of the crop or target that was treated, and the how chemical residues degrade in the environment can cause exposure levels to differ over time. Each factor has been considered in this assessment.

HED in conjunction with the Agricultural Re-entry Task Force (ARTF) has identified a number of post-application agricultural activities that may occur and which may result in post-application exposures to pesticide residues. HED estimated the post-application exposure for two uses that are considered to have the highest Transfer Coefficients (TC):

Note: In this assessment, there were no chemical-specific residue dissipation data are available, HED typically uses a generic dissipation model to complete risk calculations. Model calculation specifics are noted below.

HED assumes that inhalation exposures are minimal following outdoor applications of an active ingredient with low vapor pressure. Since the proposed uses of difenoconazole are applied only in outdoor settings and difenaconazole has a low vapor pressure, post-application inhalation exposures and risks were not assessed.

Daily Exposure: The next step in the risk assessment process was to calculate dermal exposures on each day after application using the following equation.

$$DE_{(t)}\ (mg/day) = (TR_{(t)}\ (\mu g/cm^2) \times TC\ (cm^2/hr) \times Hr/Day)/1000\ (\mu g/mg)$$

Where:

DE(t) = Daily exposure or amount deposited on the surface of the skin at time (t) attributable for activity in a previously treated area, also referred to as potential dose (mg ai/day);

TR(t) = Transferable residues that can either be dislodgeable foliar or turf transferable residue at time (t) where the longest duration is dictated by the decay time observed in the studies ($\mu g/cm^2$);

TC = Transfer Coefficient (cm^2/hour);

hr/day = Exposure duration meant to represent a typical workday (hours).

Daily Dose and Margins of Exposure: Once daily exposures are calculated, the calculation of daily absorbed dose and the resulting Margin of Exposures use the same algorithms that are described above for the handler exposures (See Section 5.1.3). These calculations are completed for each day or appropriate block of time after application.

Post-application Exposure Summary

For all post-application activities concerning this registration action, short-term occupational risks are below HED's level of concern (i.e., MOEs > 100) at day 0. Exposure, risk assumptions and MOEs for occupational post-application exposures (Agricultural use) are summarized in **Table 5.**

Table 5. Summary of Estimated Post-application MOEs for Agricultural Crops

Crop	Application Rate (lb ai/A) [1]	DAT[2]	DFR[3] ($\mu g/cm^2$)	TC[4] (cm^2/hr)	Activity[4]	Short-Term MOE[5]
Brassica Leafy, Bulb, Fruiting, and Cucurbit vegetables ([6]EC)	0.114	0	0.256	100	scouting immature plants	28,000
				1500	scouting mature plants	190
Non-bearing Citrus, Grapes, and ([6]EC)				100	scouting immature plants	26,000
				1500	harvesting, pruning	1,700
Tree Nuts ([6]EC)				500	scouting immature plants	560
				2500	harvesting, pruning	112

[1] Maximum application rate from proposed label
[2] DAT = Days after treatment needed to reach the LOC of 100; DAT 0 = the day of treatment/ assumed to be approx. 12 hours.
[3] DFR ($\mu g/cm^2$) = dislodgeable foliar residues corresponding to DAT, based on 20% of application rate.
[4] TC (cm^2/hr) = transfer coefficients and associated activities from ExpoSAC Policy Memo #003.1, 8/17/2000.
[5] MOE = MOE on the corresponding DAT. MOE = NOAEL (1.25 (mg/kg/day) / Daily Dose.
[6] (EC) = Emulsifiable Concentrate formulation

6.0 Non-Occupational/Residential Exposure

There are no residential uses proposed for difenoconazole in this registration action, therefore a residential exposure assessment was not conducted. In the previous risk assessment noted below, the residential exposure chapter stated:

"The dermal and inhalation (short-term) residential exposure was assessed for "homeowners" mixer/loader/applicator wearing short pants and short-sleeved shirts as well as shoes plus socks using garden hose-end sprayer, "pump-up" compressed air sprayer, and backpack sprayer. A MOE of 100 is adequate to protect residential pesticide handlers from exposures to difenoconazole. MOEs are >100; therefore are not of concern."

Note: For more details concerning residential exposure for difenoconazole, view HED's previous risk assessment titled: [(PP#: 6F7115. Difenoconazole in/on Fruiting Vegetables, Pome Fruit, Sugar Beets, Tuberous and Corm Vegetables, and Imported Papaya. **Health Effects Division (HED) Revised Risk Assessment**. DP#: 346591. PC Code: 128847. Decision#: 371264). Dated, 9-NOV-2007].

7.0 Conclusion

When label directions are observed, all occupational handler and post-application MOEs are not of concern (MOE ≥100) to HED for this registration action.

Furthermore, proposed labels state that; difenoconazole should be applied prior to disease onset, at early bloom, or when green leaf tissue becomes visible. Furthermore, labels state that no more than two consecutive applications are to be made before alternation with a different mode of action fungicide. However, while observing post-application activities for medium field row, deciduous tree, and tree nuts, which encompass the crops listed in this registration action, some of the activities (harvesting, and pruning) seem very conservative based on the nature of this fungicide. MOEs for these activities were not of concern for these activities (MOEs ≥100), however for future reference, this should be noted.

Lastly, the Agency determined that Difenoconazole is classified as a Group C, possible human carcinogen with a non-linear (MOE) approach for human risk characterization (CPRC Document, 7/27/94, Memo, P. V. Shah dated March 3, 2007, HED Doc. No. 0054532). However, HED believes occupational pesticide handlers will be exposed to short-term duration (1 - 30 days) exposures, but not to intermediate-term (1 - 6 months) duration exposures. Although multiple applications are possible, they are separated by 10 - 14 day retreatment intervals. No more than 2 consecutive applications should be made. It is unlikely that pesticide handlers would be exposed continuously for 30 days or more. No chronic exposure is expected.

8.0 References

- Label Use Patterns; (Inspire™ Fungicide: EPA Reg. No. 100-1262)
- Pesticides Handlers Exposure Database (PHED)Version 1.1; dated 8/98 (HED Science Advisory Council for Exposure Draft Policy #7; dated 1/28/99
- End Point Selection; See HED's previous risk assessment titled: [(PP#: 6F7115. Difenoconazole in/on Fruiting Vegetables, Pome Fruit, Sugar Beets, Tuberous and Corm Vegetables, and Imported Papaya. Health Effects Division (HED) Revised Risk Assessment. DP#: 346591. PC Code: 128847. Decision#: 371264). Dated, 9-NOV-2007].
- Memorandum ; titled [Application for Amended Section 3 Registration to Add Uses on Bulb Vegetables, Brassica Leafy Vegetables, Cucurbit Vegetables, Citrus Fruits, Grapes, Pistachios, and Tree Nuts. Submission of Residue Analytical Methods data in response to DP#340379. (Summary of Analytical Chemistry and Residue Data)]. Dated 07/08/2009

Appendices

A) Commercial/Agricultural Handler

B) Commercial/Agricultural Post-Application

Appendix A (Occupational Handler)
Difenoconazole

Exposure Factors	
Target MOE (Occ.)	100
Body Weight (kg) - General Population incl. Infants/Children	70
ST-Dermal/Inhl. NOAEL (mg/Kg/day)	1.25
IT/LT Dermal and Inhalation NOAEL (mg/kg/day)	1.25
Dermal absp factor	15%
Inhalation Factor	100%
Conv. Factor (ug/mg)	1000

Appl. Equipment	Crop(s)	Max App. (lb ai /A) or (gal/day)	DAT (Acre)	Handler Scenario	Unit Exposures (Dermal) Baseline (mg/lb ai)	Unit Exposures (Dermal) Baseline/Gloves (mg/lb ai)	Unit Exposures (Inhalation) Baseline (ug/lb ai)	Daily Dose (Dermal) Baseline (mg/Kg/day)	Daily Dose (Dermal) Baseline/Gloves (mg/Kg/day)	Daily Dose (Inhalation) Baseline (mg/Kg/day)	Margin of Exposure (MOE) Short-term (Dermal + Inhalation) Baseline	Margin of Exposure (MOE) Short-term (Dermal + Inhalation) BL/Gloves	Margin of Exposure (MOE) Int.-/Long-Term (Dermal + Inhl.) Baseline	Margin of Exposure (MOE) Int.-/Long-Term (Dermal + Inhl.) BL/Gloves
Aerial (Enclosed cockpit)	Brassica (Cole) leafy, bulb, fruiting, and cucurbit vegetables	0.114	350	Open M/L (EC)	2.9	0.023	1.2	0.252909	0.00200583	0.000684	4.9	460	4.9	460
				Applying	0.005	0.0022	0.068	0.00043605	0.000191862	0.00003876	2600	5400	2600	5400
	Non-bearing Citrus, Grapes, Tree Nuts	0.114	350	Open M/L (EC)	2.9	0.023	1.2	0.252909	0.00200583	0.000684	4.9	460	4.9	460
				Applying	0.005	0.0022	0.068	0.00043605	0.000191862	0.00003876	2600	5400	2600	5400
Groundboom (Open Cab data)	Brassica (Cole) leafy, bulb, fruiting, and cucurbit vegetables	0.114	80	Open M/L (EC)	2.9	0.023	1.2	0.05780777	0.000458475	0.00015634	22	2000	22	2000
				Open M/L/A	0.37	0.057	1.3	0.00737547	0.001136222	0.00016937	170	960	170	960
				Applying	0.014	0.014	0.74	0.00027907	0.000279072	9.6411E-05	3300	3300	3300	3300
	Non-bearing Citrus, Grapes, Tree Nuts	0.114	80	Open M/L (EC)	2.9	0.023	1.2	0.05780777	0.000458475	0.00015634	22	2000	22	2000
				Applying	0.014	0.014	0.74	0.00027907	0.000279072	9.6411E-05	3300	3300	3300	3300
Airblast (Open Cab)	Brassica (Cole) leafy, bulb, fruiting, and cucurbit vegetables	0.114	40	Open M/L (EC)	2.9	0.023	1.2	0.02890389	0.000229238	7.8171E-05	43	4100	43	4100
				Applying	0.36	0.24	4.5	0.00358807	0.002392046	0.00029314	320	470	320	470
	Non-bearing Citrus, Grapes, Tree Nuts	0.114	40	Open M/L (EC)	2.9	0.023	1.2	0.02890389	0.000229238	7.8171E-05	43	4100	43	4100
				Applying	0.36	0.24	4.5	0.00358807	0.002392046	0.00029314	320	470	320	470
Chemigation	Brassica (Cole) leafy, bulb, fruiting, and cucurbit vegetables	0.114	350	Open M/L (EC)	2.9	0.023	1.2	0.252909	0.00200583	0.000684	4.9	460	4.9	460
	Non-bearing Citrus, Grapes, Tree Nuts	0.114	350		2.9	0.023	1.2	0.252909	0.00200583	0.000684	4.9	460	4.9	460

Occupational Post-Application Risk Assessment Calculator Version 1 (8/9/00)

Chemical:	Difenoconazole	
Reason:	TC Policy 3.1	
Date:	07/01/05	
Assessor:	James Scott Miller	
Applicable TC Groups:		
Bunch/Bundle	**(Appendix B)**	
Field row crop, Low/Medium	**Short-Term Occupational Post-application**	
Field row crop, Tall		
Cut flowers		
Tree, "fruit", Deciduous		
Tree, "fruit", Evergreen		
Tree nuts		
Turf/Sod		
[Note: Only applicable TC groups are included above.]		
DFR/TTR Data Defaults:		
Initial Percent of Rate as DFR (%):	20	20
Dissipation Rate per day (%):	10	10
Initial Percent of Rate as TTR (%):	5	5
Toxicology & Exposure Factor Inputs:		
Uncertainty Factor:	100	100
NOAEL (mg/kg/day):	1.25	1.25
Source of NOAEL:	Neurotoxicity Study	Developmental (Oral) Toxicity Study
Adult Exposure Duration (hrs/day):	8	8
Adult Body Weight (kg):	70	70
Dermal Abs. (%):	15.3	15.3

Note: If a dermal administration toxicity study is the source of the endpoint used for risk assessment, then the dermal absorption factor is set to 100 % to satisfy the calculations in this spreadsheet program.

Occupational Post-Application Risk Assessment Calculator Version 1 (8/9/00)

(Appendix B)
Short-Term Occupational Post-application

Chemical:	Difeneconazole
Reason:	TC Policy 3.1
Date:	7/1/2005
Transfer Coefficient Group:	Field/row crop, low/medium
Specific Crop(s) Considered:	barley, mint, peanuts, rice, wild rice, wheat (Past Feekes 8), oats, rye, celery
Application Rate of Crop (lb ai/A):	0.114

DFR Data Summary

Data Source (enter 1 if data available, 0 if defaults):		0
Source:		Rice DFR Data (MRID 133390)
Slope of Semilog Regression:		-0.30837
[Initial] (ug/cm2):		0.184
Study Application Rate (lb ai/A):		0.114
Limit of Quantification (ug/cm2):		N/A

[Note: Enter application rate of crop if no data available in study rate cell.]

Exposure Inputs Summary

Exposure Potential	Transfer Coefficients (cm2/hour)		Activities
	Used For RA	Range	
Very Low	N/A	N/A	N/A
Low	100	TBD	Irrigation, scouting, thinning, weeding immature/low foliage plants
Medium	1500	486 to 2760	Irrigation, scouting, weeding mature/high foliage plants
High	2500	486 to 2760	hand harvesting
Very High	N/A	N/A	N/A

DAT	DFR LEVELS (ug/cm2)		DOSE (mg/kg/day)			MOES		
	Not Adjusted	Adjusted For Rate	Low Exposure	Medium Exposure	High Exposure	Low Exposure	Medium Exposure	High Exposure
0	0.256	0.256	0.0004	0.0067	0.0112	2794.7	186.3	111.8
1	0.230	0.230	0.0004	0.0060	0.0101	3105.3	207.0	124.2
2	0.207	0.207	0.0004	0.0054	0.0091	3450.3	230.0	138.0
3	0.186	0.186	0.0003	0.0049	0.0082	3833.6	255.6	153.3
4	0.168	0.168	0.0003	0.0044	0.0073	4259.6	284.0	170.4
5	0.151	0.151	0.0003	0.0040	0.0066	4732.9	315.5	189.3
6	0.136	0.136	0.0002	0.0036	0.0059	5258.8	350.6	210.4
7	0.122	0.122	0.0002	0.0032	0.0053	5843.1	389.5	233.7
8	0.110	0.110	0.0002	0.0029	0.0048	6492.3	432.8	259.7
9	0.099	0.099	0.0002	0.0026	0.0043	7213.7	480.9	288.5
10	0.089	0.089	0.0002	0.0023	0.0039	8015.2	534.3	320.6
11	0.080	0.080	0.0001	0.0021	0.0035	8905.8	593.7	356.2
12	0.072	0.072	0.0001	0.0019	0.0032	9895.3	659.7	395.8
13	0.065	0.065	0.0001	0.0017	0.0028	10994.8	733.0	439.8
14	0.059	0.059	0.0001	0.0015	0.0026	12216.4	814.4	488.7
15	0.053	0.053	0.0001	0.0014	0.0023	13573.8	904.9	543.0
16	0.047	0.047	0.0001	0.0012	0.0021	15082.0	1005.5	603.3

17	0.043	0.043	0.0001	0.0011	0.0019	16757.8	1117.2	670.3
18	0.038	0.038	0.0001	0.0010	0.0017	18619.8	1241.3	744.8
19	0.035	0.035	0.0001	0.0009	0.0015	20688.6	1379.2	827.5
20	0.031	0.031	0.0001	0.0008	0.0014	22987.4	1532.5	919.5
21	0.028	0.028	0.0000	0.0007	0.0012	25541.5	1702.8	1021.7
22	0.025	0.025	0.0000	0.0007	0.0011	28379.5	1892.0	1135.2
23	0.023	0.023	0.0000	0.0006	0.0010	31532.7	2102.2	1261.3
24	0.020	0.020	0.0000	0.0005	0.0009	35036.4	2335.8	1401.5
25	0.018	0.018	0.0000	0.0005	0.0008	38929.3	2595.3	1557.2
26	0.017	0.017	0.0000	0.0004	0.0007	43254.8	2883.7	1730.2
27	0.015	0.015	0.0000	0.0004	0.0007	48060.9	3204.1	1922.4
28	0.013	0.013	0.0000	0.0004	0.0006	53401.0	3560.1	2136.0
29	0.012	0.012	0.0000	0.0003	0.0005	59334.4	3955.6	2373.4
30	0.011	0.011	0.0000	0.0003	0.0005	65927.1	4395.1	2637.1

Occupational Post-Application Risk Assessment Calculator Version 1 (8/9/00)

(Appendix B)
Short-Term Occupational Post-application

Chemical:	Propiconazole
Reason:	TC Policy 3.1
Date:	7/1/2005
Transfer Coefficient Group:	Deciduous Tree Fruit
Specific Crop(s) Considered:	Cherries, Nectarines, Peaches, Plums, Non-bearing Apples, Stone Fruit Trees, Shade Trees, Apricots, Woody plants and Herbaceous plants
Application Rate of Crop (lb ai/A):	0.114

DFR Data Summary

Data Source (enter 1 if data available, 0 if defaults):	0
Source:	Peach DFR Data (MRID 44959701)
Slope of Semilog Regression:	-0.0708
[Initial] (ug/cm2):	0.254
Study Application Rate (lb ai/A):	0.114
Limit of Quantification (ug/cm2):	0.00296

[Note: Enter application rate of crop if no data available in study rate cell.]

Exposure Inputs Summary

Exposure Potential	Transfer Coefficients (cm2/hour)		Activities
	Used For RA	Range	
Very Low	100	100	propping
Low	1000	197 to 2302	Irrigation, scouting, weeding
Medium	N/A	N/A	N/A
High	1500	1421 to 4393	harvesting, pruning, training, tying
Very High	3000	5806 to 9835	thinning

DAT	DFR LEVELS (ug/cm2)		DOSE (mg/kg/day)				MOEs			
	Not Adjusted	Adjusted For Rate	Very Low Exposure	Low Exposure	High Exposure	Very High Exposure	Very Low Exposure	Low Exposure	High Exposure	Very High Exposure
0	0.256	0.256	0.0012	0.012	0.018	0.035	25655.6	2565.6	1710.4	855.2
1	0.230	0.230	0.0011	0.011	0.016	0.032	28506.2	2850.6	1900.4	950.2
2	0.207	0.207	0.0009	0.009	0.014	0.028	31673.6	3167.4	2111.6	1055.8
3	0.186	0.186	0.0009	0.009	0.013	0.026	35192.9	3519.3	2346.2	1173.1
4	0.168	0.168	0.0008	0.008	0.012	0.023	39103.2	3910.3	2606.9	1303.4
5	0.151	0.151	0.0007	0.007	0.010	0.021	43448.0	4344.8	2896.5	1448.3
6	0.136	0.136	0.0006	0.006	0.009	0.019	48275.5	4827.6	3218.4	1609.2
7	0.122	0.122	0.0006	0.006	0.008	0.017	53639.5	5363.9	3576.0	1788.0
8	0.110	0.110	0.0005	0.005	0.008	0.015	59599.4	5959.9	3973.3	1986.6
9	0.099	0.099	0.0005	0.005	0.007	0.014	66221.6	6622.2	4414.8	2207.4
10	0.089	0.089	0.0004	0.004	0.006	0.012	73579.5	7358.0	4905.3	2452.7
11	0.080	0.080	0.0004	0.004	0.006	0.011	81755.1	8175.5	5450.3	2725.2
12	0.072	0.072	0.0003	0.003	0.005	0.010	90838.9	9083.9	6055.9	3028.0
13	0.065	0.065	0.0003	0.003	0.004	0.009	100932.2	10093.2	6728.8	3364.4
14	0.059	0.059	0.0003	0.003	0.004	0.008	112146.8	11214.7	7476.5	3738.2
15	0.053	0.053	0.0002	0.002	0.004	0.007	124607.6	12460.8	8307.2	4153.6
16	0.047	0.047	0.0002	0.002	0.003	0.007	138452.9	13845.3	9230.2	4615.1
17	0.043	0.043	0.0002	0.002	0.003	0.006	153836.6	15383.7	10255.8	5127.9
18	0.038	0.038	0.0002	0.002	0.003	0.005	170929.5	17093.0	11395.3	5697.7
19	0.035	0.035	0.0002	0.002	0.002	0.005	189921.7	18992.2	12661.4	6330.7
20	0.031	0.031	0.0001	0.001	0.002	0.004	211024.1	21102.4	14068.3	7034.1
21	0.028	0.028	0.0001	0.001	0.002	0.004	234471.2	23447.1	15631.4	7815.7
22	0.025	0.025	0.0001	0.001	0.002	0.003	260523.6	26052.4	17368.2	8684.1
23	0.023	0.023	0.0001	0.001	0.002	0.003	289470.6	28947.1	19298.0	9649.0
24	0.020	0.020	0.0001	0.001	0.001	0.003	321634.0	32163.4	21442.3	10721.1
25	0.018	0.018	0.0001	0.001	0.001	0.003	357371.1	35737.1	23824.7	11912.4
26	0.017	0.017	0.0001	0.001	0.001	0.002	397079.0	39707.9	26471.9	13236.0
27	0.015	0.015	0.0001	0.001	0.001	0.002	441198.9	44119.9	29413.3	14706.6
28	0.013	0.013	0.0001	0.001	0.001	0.002	490221.0	49022.1	32681.4	16340.7

29	0.012	0.012	0.0001	0.001	0.001	0.002	544690.0	54469.0	36312.7	18156.3
30	0.011	0.011	0.0000	0.000	0.001	0.001	605211.1	60521.1	40347.4	20173.7

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Occupational Post-Application Risk Assessment Calculator Version 1 (8/9/00)

(Appendix B)
Short-Term Occupational Post-application

Chemical:	Difenoconazole
Reason:	TC Policy 3.1
Date:	7/1/2005
Transfer Coefficient Group:	Tree Nut
Specific Crop(s) Considered:	Pecans, Non-bearing Hazelnuts
Application Rate of Crop (lb ai/A):	0.114

DFR Data Summary

Data Source (enter 1 if data available, 0 if defaults):	0
Source:	Pecan DFR Data (MRID 40279806)
Slope of Semilog Regression:	-0.012589
[Initial] (ug/cm2):	0.385
Study Application Rate (lb ai/A):	0.114
Limit of Quantification (ug/cm2):	N/A

[Note: Enter application rate of crop if no data available in study rate cell.]

Exposure Inputs Summary

Exposure Potential	Transfer Coefficients (cm2/hour)		Activities
	Used For RA	Range	
Very Low	N/A	N/A	N/A
Low	500	197 to 2302	Irrigation, scouting, thinning, weeding
Medium	N/A	N/A	N/A
High	2500	1121 to 4929	harvesting/poling, pruning, thinning
Very High	N/A	N/A	N/A

[Note: Mechanical shaking, rowing/sweeping, and vacuuming are a special concern and are not addressed with TCs.]

DAT	DFR LEVELS (ug/cm2)		DOSE (mg/kg/day)		MOEs	
	Not Adjusted	Adjusted For Rate	Low Exposure	High Exposure	Low Exposure	High Exposure
0	0.256	0.256	0.002	0.011	558.9	111.8
1	0.230	0.230	0.002	0.010	621.1	124.2
2	0.207	0.207	0.002	0.009	690.1	138.0
3	0.186	0.186	0.002	0.008	766.7	153.3
4	0.168	0.168	0.001	0.007	851.9	170.4
5	0.151	0.151	0.001	0.007	946.6	189.3
6	0.136	0.136	0.001	0.006	1051.8	210.4
7	0.122	0.122	0.001	0.005	1168.6	233.7
8	0.110	0.110	0.001	0.005	1298.5	259.7
9	0.099	0.099	0.001	0.004	1442.7	288.5
10	0.089	0.089	0.001	0.004	1603.0	320.6
11	0.080	0.080	0.001	0.004	1781.2	356.2
12	0.072	0.072	0.001	0.003	1979.1	395.8
13	0.065	0.065	0.001	0.003	2199.0	439.8
14	0.059	0.059	0.001	0.003	2443.3	488.7
15	0.053	0.053	0.000	0.002	2714.8	543.0

16	0.047	0.047	0.000	0.002	3016.4	603.3	
17	0.043	0.043	0.000	0.002	3351.6	670.3	
18	0.038	0.038	0.000	0.002	3724.0	744.8	
19	0.035	0.035	0.000	0.002	4137.7	827.5	
20	0.031	0.031	0.000	0.001	4597.5	919.5	
21	0.028	0.028	0.000	0.001	5108.3	1021.7	
22	0.025	0.025	0.000	0.001	5675.9	1135.2	
23	0.023	0.023	0.000	0.001	6306.5	1261.3	
24	0.020	0.020	0.000	0.001	7007.3	1401.5	
25	0.018	0.018	0.000	0.001	7785.9	1557.2	
26	0.017	0.017	0.000	0.001	8651.0	1730.2	
27	0.015	0.015	0.000	0.001	9612.2	1922.4	
28	0.013	0.013	0.000	0.001	10680.2	2136.0	
29	0.012	0.012	0.000	0.001	11866.9	2373.4	
30	0.011	0.011	0.000	0.000	13185.4	2637.1	

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R178688

Chemical Name: Difenoconazole

PC Code: 128847
HED File Code: 14000 Risk Reviews
Memo Date: 9/14/2009
File ID: 00000000
Accession #: 000-00-0132

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11/3/2009