

Evaluation Report for Category B, Subcategory 3.12 (C.8.1) Application

Application Number: 2010-6197
Application: Product Labels – New site or host
Product: CGA279202 50WG Fungicide
Registration Number: 30427
Active ingredients (a.i.): Trifloxystrobin
PMRA Document Number : 2141475

Purpose of Application

The purpose of this application was to register the new end-use product CGA279202 50WG Fungicide, based on the precedent end-use product Flint 50WG Fungicide. In addition to seeking registration of CGA279202 50WG Fungicide for those use patterns currently registered for Flint 50WG Fungicide, the applicant is seeking registration for CGA279202 50WG Fungicide for use in several additional crops (asparagus, sugar beet, other stone fruits, fruiting vegetables, cucurbits, leaf petiole vegetables, root vegetables, strawberry, other tree nuts, peanut and hops). Each of the proposed crop uses for CGA279202 50WG Fungicide is presently registered in the United States and available to US growers through registration of Flint Fungicide (EPA Reg. No. 264-777).

Chemistry Assessment

A chemistry assessment was not required for this application.

Health Assessments

Residue data from crop field trials conducted in NAFTA representative Regions for trifloxystrobin in asparagus, cantaloupe, carrot, celery, peanut, peppers, tomatoes, radish and strawberry were submitted to support the registration of the new end-use product CGA279202 50WG Fungicide. In addition, a processing study in treated peanuts was also assessed to determine the potential for concentration of residues of trifloxystrobin into processed commodities. Previously reviewed residue data from field trials conducted in/on almonds, apples, cantaloupe, cherries, cucumber, grapes, peaches, pears, pecans, peppers, plums, sugar beets, summer squash, tomatoes and wheat, were reassessed in the framework of this petition. In addition, processing studies in treated apples, grapes, plums, sugar beets, tomatoes and wheat were also reassessed to determine the potential for concentration of residues of trifloxystrobin into processed commodities.

Maximum Residue Limits

Based on the maximum residues observed in crops treated according to label directions and at exaggerated rates, maximum residue limits (MRLs) of 10 ppm for radish tops, 3.5 ppm for Crop Subgroup 4B (leaf petioles subgroup), 1.1 ppm for strawberry, 0.1 ppm for Crop Subgroup 1B (root vegetables, except sugar beets), 0.07 ppm for asparagus and 0.05 ppm for peanuts to cover residues of trifloxystrobin and the acid metabolite CGA-321113 in/on crops and processed commodities will be established as shown in Table 1. Residues of trifloxystrobin and the acid metabolite CGA-321113 in processed commodities not listed in Table 1 are covered under established MRLs for the raw agricultural commodities (RACs).

TABLE 1. Summary of Field Trial and Processing Data Used to Establish Maximum Residue Limits (MRLs)							
Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues* (ppm)		Experimental Processing Factor	Currently Established MRL	Recommended MRL
			Min	Max			
Asparagus	Foliar broadcast spray application/ 419-432	92-188	<0.07	<0.07	Not applicable	None	0.07
Carrot Roots	Foliar broadcast spray application/ 550-577	6-7	<0.04	<0.088	Not applicable	None	0.1 (Crop Subgroup 1B, except sugar beets)
Cantaloupe	Post foliar spray/ 1116.4-1126.4	0	<0.06	<0.13	Not applicable	0.5 (Crop Group; cucurbit vegetables)	None
Celery	Foliar spray application/ 560-840	6-8	<0.27	<3.18	Not applicable	None	3.5 (Crop Subgroup 4B; leaf petioles subgroup)
Peanut Nutmeat	Foliar broadcast spray application/ 560	14-17	<0.04	<0.04	Could not be determined since residues of trifloxystrobin and CGA-321113 were each not quantified in whole nut, or refined oil.	None	0.05
Pepper (Non-Bell)	Foliar spray application/ 555	3	<0.112	<0.123	Not applicable	0.5 (Crop Group 8; fruiting vegetables)	None

TABLE 1. Summary of Field Trial and Processing Data Used to Establish Maximum Residue Limits (MRLs)							
Commodity	Application Method/ Total	PHI (days)	Residues* (ppm)		Experimental Processing Factor	Currently Established MRL	Recommended MRL
Pepper (Bell)	Foliar spray application/ 559-562	3	<0.044	<0.148	Not applicable	0.5 (Crop Group 8; fruiting vegetables)	None
Radish Roots	Foliar directed spray/ 281-296	6-8	<0.04	0.08	Not applicable	None	0.1 (Crop Subgroup 1B, except sugar beets)
Radish Tops		6-8	0.12	7.33	Not applicable	None	10
Strawberries	Foliar broadcast spray/ 671-679	0	0.111	0.591	Not applicable	None	1.1
Tomatoes	Foliar spray application/ 562-580	3	<0.049	<0.354	1.15x-2.13x (paste); 0.72x-0.97x (puree)	0.5 (Crop Group 8; fruiting vegetables)	None

*Trifloxystrobin + the acid metabolite CGA-321113.

Based on the anticipated dietary burden to livestock and the residue data provided, an MRL of 0.1 ppm is recommended to replace the MRL of 0.04 ppm currently established in fat, meat and meat by-products of cattle, goats, horses and sheep.

Following the review of all available data, MRLs of 10 ppm for radish tops, 3.5 ppm for Crop Subgroup 4B (leaf petioles subgroup), 1.1 ppm for strawberry, 0.1 ppm for Crop Subgroup 1B (root vegetables, except sugar beets), 0.07 ppm for asparagus and 0.05 ppm for peanuts are recommended to cover residues of trifloxystrobin and the acid metabolite CGA-32113. In addition, it is proposed that the MRL of 0.04 ppm for the fat, meat and meat byproducts of cattle, goats, horses and sheep be replaced with 0.1 ppm. Residues of trifloxystrobin and the acid metabolite in these food commodities at the established MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

The use of trifloxystrobin on asparagus, sugar beet, stone fruit, fruiting vegetables, cucurbits, leafy petiole vegetables, root vegetables, strawberry, peanut and hops, in the new end-use product CGA379202 50WG Fungicide, should not result in unacceptable risk when workers follow all use directions and precautions and wear personal protective equipment as recommended on the label. The use of the end-use product on grapes, pome fruit, cherries, wheat and hazelnut falls within the registered use pattern for trifloxystrobin.

A toxicology assessment was not required for this application.

Environmental Assessment

The crops are considered minor uses compared to wheat, which is on the currently registered product label. The application methods used for the crops (ground boom and airblast) are currently registered for crops on the Flint 50WG Fungicide label. Some of the application rates proposed for newly added crops are higher than registered rates (same corresponding application methods). As such, the buffer zones were revisited for the crops where the application rate was higher than proposed for both application methods.

The risk to non-target organisms that was identified with the proposed crops and their respective application rates can be mitigated with buffer zones. As such, under the condition that the label is amended to include the buffer zones in the following table, the risk to non-target organisms from the use of this product is acceptable.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:				
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	All crops		1	1	1	1	1
Airblast	Grapes, cherries, pome fruit (apples, crabapples, loquat, mayhaw, pear, oriental pear, quince)	Early growth stage	15	2	15	1	1
		Late growth stage	10	2	5	1	1
	Stone fruit (apricots, nectarines, peaches, plums, plumcots, prunes), tree nuts (almonds, beechnut, butternut, pistachios, walnuts, chestnuts), hazelnuts	Early growth stage	20	3	15	2	1
		Late growth stage	10	2	5	1	1

Value Assessment

Given that the product formulation is identical to that of Flint 50 WG Fungicide (50% trifloxystrobin), the

registered uses for Flint 50 WG Fungicide were first extrapolated to the label of CGA279202 50WG Fungicide. To support the claims specific to CGA279202 50WG Fungicide, 49 efficacy trials and 28 crop tolerance trials conducted in various countries that were deemed acceptable for review were submitted for evaluation.

Nineteen of the 23 proposed claims were supported based on the acceptable levels of protection achieved with trifloxystrobin at the proposed rates. Confirmatory efficacy data have been requested for five claims. The claims for control of scab caused by *Cladosporium* spp. on stone fruits and tree nuts could not be supported, as the two submitted trials did not adequately assess the efficacy of CGA279202 50WG Fungicide due to improper experimental design and low disease pressure conditions. The claims of control of rust and shothole on tree nuts were also not supported considering that no tree nut species other than almonds are susceptible to these diseases, and that almonds are not a viable commercial crop in Canada.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided in support of the product, CGA279202 50WG Fungicide, and has found the information sufficient to register the new end-use product CGA279202 50WG Fungicide.

References

PMRA Document Number	Reference
1677350	2000, Behaviour and metabolism of [trifluoromethyl-phenyl-(U)-14C] CGA 279202 in field grown sugar beets, DACO: 6.3
1677351	2000, Behaviour and metabolism of [glyoxyl-phenyl-(U)-14C] CGA 279202 in field grown sugar beets, DACO: 6.3
1994772	2000, CGA-279202 - Magnitude of the residues in or on a representative commodity of crop group 9: cucurbit vegetables, DACO: 7.4.1
1994775	2006, Trifloxystrobin: Magnitude of the residue on asparagus, DACO: 7.3,7.4.1
1994776	2006, Trifloxystrobin: Magnitude of the residue on radish, DACO: 7.4.1
1994803	2002, Flint 50 WG - Magnitude of the residue on tomatoes and peppers, DACO: 7.4.1
1994804	2006, Flint 50 WG - Magnitude of the residue in/on strawberries, DACO: 7.4.1,7.4.2,7.4.5
1994846	1997, Uptake and metabolism of CGA-279202 in field grown peanuts after spray treatment with phenyl (A)-14C-CGA-279202 and phenyl (B)-14C-CGA-279202, DACO: 6.3
1994856	2002, Trifloxystrobin: Magnitude of the residue on celery, DACO: 7.4.1
1994857	2002, Trifloxystrobin: Magnitude of the residue on carrot, DACO: 7.4.1
1193866	1998, CGA-279202 - Magnitude of the residues in or on peanuts, DACO: 7.4.1,7.4.5
1994764	2009, Efficacy and tolerance of Flint 50 WG fungicide (trifloxystrobin) for the control of foliar diseases caused by <i>Alternaria</i> species on radish, DACO: 10.1, 10.2.3.1, 10.2.3.3(D)
1994765	2009, Efficacy and tolerance of Flint 50 WG fungicide (trifloxystrobin) for the control of foliar diseases caused by <i>Alternaria</i> species on radish, DACO: 10.1, 10.2.3.1, 10.2.3.3(D)
1994806	2009, Flint 50 WDG fungicide - Control of fungal pathogens in asparagus and peanut, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.2.3.4, 10.3.1, 10.3.2, 10.4, 10.5.1, 10.5.3, 10.5.4
1994809	2009, Flint 50 WDG fungicide - Control of fungal pathogens in asparagus and peanut, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.2.3.4, 10.3.1, 10.3.2, 10.4, 10.5.1, 10.5.3, 10.5.4
1994810	2008, Flint 50 WG fungicide for control of diseases in leafy petiole vegetables (crop group 4B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
1994814	2008, Flint 50 WG fungicide for control of diseases in leafy petiole vegetables (crop group 4B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2

- 1994815 2008, Flint 50 WG fungicide for control of diseases in leafy petiole vegetables (crop group 4B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994816 2008, Flint 50 WG fungicide for control of powdery mildew on hops, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994818 2008, Flint 50 WG fungicide for control of powdery mildew on hops, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994819 2008, Flint 50 WG fungicide for control of powdery mildew on hops, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994821 2008, Flint 50 WG fungicide for control of diseases in sugar beet, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994823 2008, Flint 50 WG fungicide for control of diseases in sugar beet, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994825 2008, Flint 50 WG fungicide for control of diseases in sugar beet, DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994826 2008, Flint 50 WG fungicide for control of diseases in stone fruit (crop group 12) and tree nuts (crop group 14), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994827 2008, Flint 50 WG fungicide for control of diseases in stone fruit (crop group 12) and tree nuts (crop group 14), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994828 2008, Flint 50 WG fungicide for control of diseases in stone fruit (crop group 12) and tree nuts (crop group 14), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994829 2008, Flint 50 WG fungicide for control of diseases in root vegetables (crop group 1B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994830 2008, Flint 50 WG fungicide for control of diseases in root vegetables (crop group 1B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994831 2008, Flint 50 WG fungicide for control of diseases in root vegetables (crop group 1B), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994832 2008, Flint 50 WG fungicide for control of early blight in fruiting vegetables (crop group 8), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994833 2008, Flint 50 WG fungicide for control of early blight in fruiting vegetables (crop group 8), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994834 2008, Flint 50 WG fungicide for control of early blight in fruiting vegetables (crop group 8), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994835 2008, Flint 50 WG fungicide for control of powdery mildew in cucurbits (crop group 9), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994836 2008, Flint 50 WG fungicide for control of powdery mildew in cucurbits (crop group 9), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994838 2008, Flint 50 WG fungicide for control of powdery mildew in cucurbits (crop group 9), DACO: 10.1, 10.2.2, 10.2.3.1, 10.2.3.3, 10.3.1, 10.3.2
- 1994839 2010, CGA279202 50WG Fungicide, DACO 0.17.1, General Data Bridging Rationale, DACO: 0.17.1
- 1994840 2010, CGA279202 50WG Fungicide - DACO 10, Value: support for use in strawberry, DACO: 10.1

Additional information considered

- 2036389 2008, Evaluation of fungicides for control of hop downy mildew and powdery mildew, DACO: 10.2.3.3

ISSN: 1911-8082

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