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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

Date: 24-MARCH-2005

Subject: ID# CA040018, CA040015. **Section 24(C) Special Local Need (SLN) Registration.** Oxyfluorfen (Galigan® 2E) in/on Olives and Stone Fruits.

DP #	312749, 313677	Decision #:	348591, 347941
PC Code:	111601	Class:	Herbicide
40 CFR:	180.381		

From: Mohsen Sahafeyan, Chemist *Mohsen Sahafeyan*
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Through: PV Shah, Ph.D., Branch Senior Scientist *PV Shah*
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To: Joanne Miller, Risk Manager (RM 241)
Eugene Wilson, Risk Manager Reviewer (RM 23)
Registration Division (7505C)

Introduction:

Makhteshim-Agan of North America Inc. (company number: 66222) submitted requested field data (MRID#46439001) to fulfill the deficiency cited in a previous memorandum (M. Sahafeyan, DP# 309345, 9-NOV-2004) for supporting a Section 24(c) Special Local Need (SLN) Registration issued in the State of California for the use of oxyfluorfen (Galigan® 2E; EPA Reg. No. 66222-28) for weed control in olive and stone fruits orchards during the growing and fruiting season. The laboratory report (MRID#46380501) was submitted previously.

Recommendation:

After a preliminary review of the submitted studies, HED determined that the data indicates that a one time application of 1.5 lb ai/A of Galigan® 2E with 14-day pre-harvest interval (PHI) as a

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broadcast soil application to the base of olive, prune, plum, and peach trees when fruits are in mature stage results in residues less than the limit of quantification (<LOQ). The current tolerance on olive (0.05 ppm) and on stone fruits (0.05 ppm) (40 CFR 180.381) will cover residues expected from this additional use of Galigan[®] 2E on non-dormant olive and stone fruit. Therefore, HED recommends for this Section 24(C) use of Galigan[®] 2E on olives and stone fruits during the growing and fruiting season in the State of California as a one-time application of maximum 1.5 lb ai/A as a broadcast soil application with a 14-day PHI. A thorough review of the submitted studies will be conducted at a later time.

Background

Oxyfluorfen [2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl)benzene] is a pre- and postemergence herbicide registered for use on a variety of field crops, vegetables, and fruit trees used as a directed spray or broadcast application during dormant or vegetative growth stages on food/feed crops using ground or aerial equipment. Tolerance expression for plant (0.05-0.1 ppm) and livestock commodities (0.05 ppm) include oxyfluorfen *per se* [40 CFR §180.381]. The tolerance on olive and stone fruit is at 0.05 ppm (LOQ). An adequate method is available for the enforcement of tolerances as currently defined.

The State of California has issued a Section 24(c) Special Local Need (SLN) Registration for the use of oxyfluorfen (Galigan[®] 2E; EPA Reg. No. 66222-28) for weed control in olive orchards and stone fruit trees during the growing and fruiting season. This use will be additional to the currently registered use of Galigan[®] 2E on dormant olives and stone fruits. (Note: In California Galigan[®] 2E is currently registered for weed control in olives and stone fruits for the period immediately after harvest up to February 15). A residue chemistry study report (MRID: 46380501) was submitted by Makhteshim-Agan of North America Inc. (company number: 66222) to the Agency in support of this Section 24(c).

Detailed Consideration

A total of 9 field trials for olive (2), prune (2), plum (2), peach (3) in separate plots in the State of California (EPA Region 10) were conducted in which Galigan[®] 2E (as a EC formulation) was applied as one broadcast soil application to the base of olive, prune, plum, and peach trees when fruits were in mature stage at a rate of 1.5 lb ai/A and a 14-day PHI using a CO2-backpack sprayer. Three field samples from each plot were harvested by hand, duplicate or triplicate samples from each plot sent to the Pyxant Labs Inc. in frozen condition, kept frozen for duration of 2.5-4 months and subsequently analyzed using Makhteshim Method Mana-Oxy-99-01. The residues of oxyfluorefen on all 15 field samples were <LOQ. The LOQ of the method was 0.05 ppm. The following table provides detailed information.

crop	locations	app rate (lb a/acre)	PHI (days)	no. of app.	Residue (ppm)
Olive	1) SJ Valley, CA 2) No. CA CA	1.5	14	1	< 0.05 ppm (<LOQ)
Plum	1) S.J. Valley, CA 2) No. CA				
Prune	1) No. CA 2) S. J. Valley				
Peach	1) No. CA 2) No. S.J. Valley 3) S. J. Valley				

Results and Discussion

The required number of field trials for Section 24(C) in the State of California (Region 10), with 25% reduction due to <LOQ residues in previous field trials, for olive is 3 (3 X 100%), and for representative crops of stone fruit crop group, i.e., for sweet cherry is 1 (4 X 22%), for peach is 2 (7 X 29%), and for plum is 4 (4 X 90%). The number of field trials conducted is one less than required for olive and there are no cherry field trials submitted; however, based on previously submitted confined rotational crop studies (José J. Morales, D275399, June 6, 2001) in which the TRR in/on root/tuber vegetables, fruiting and leafy vegetables, and grain crops were ≤ 0.01 ppm at the minimum PHI specified on the label under fallow bed uses, it is not expected that residues of oxyfluorfen >LOQ will be found if more field trials are conducted. Available storage stability data (José J. Morales, D275399, June 6, 2001) support the frozen storage duration of 2.5-4 months in the submitted studies.

cc: Mohsen Sahafeyan (RAB1)
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