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OFFICE OF  
PESTICIDES AND TOXIC  
SUBSTANCES

**MEMORANDUM**

**Subject:** PP#8F3607: Glufosinate-Ammonium (IGNITE®) in or on Tree Crops and Vine Crops. DP Barcode D166197. MRID No.None. CBRS No. 8185.

**From:** Stephen Funk, Ph.D., Chemist *S. N. Funk*  
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**Through:** Andrew Rathman, Section Head *ARR*  
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**To:** Jesse Mayes, Product Management Team 23  
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Background

Hoechst-Celanese previously petitioned for permanent tolerances for the herbicide glufosinate-ammonium (Ignite®), monoammonium 2-amino-4-(hydroxymethylphosphinyl) butanoate, and its metabolite, 3-methyl-phosphinicopropionic acid, expressed as 2-amino-4-(hydroxymethylphosphinyl) butanoic acid, in or on soybean seed, apples, grapes, field corn (grain, forage, fodder, and silage), and nuts at 0.05 ppm and in or on almond hulls at 0.50 ppm. Several deficiencies were noted, and the petition is currently in reject status (08/08/90, J. Garbus, DEB No. 6195; PP#8F3607). Temporary tolerances exist for Glufosinate-Ammonium and its metabolite in/on citrus, grapes, pome fruit, and stone fruit. All expire 06/06/92.

The petitioner has now submitted a proposed label for the use of Ignite 1SC Herbicide on emerged weeds in tree crops and vine crops and in non-crop areas. Also included are a CSF and some product chemistry for the end-use product Ignite 1SC Herbicide. Review of end-use CSF's and product chemistry is in the purview of the Registration Division and will not be addressed by CBRS.



## Discussion

The outstanding deficiencies in the petition were as follows:

1. The chemical name DL-homoalanine-4-yl (methyl phosphinate) should be used in the proposed tolerance expression. A revised Section F is needed.
2. A restriction on feeding treated corn forage and fodder must be removed. It is inconsistent with a proposed tolerance for these commodities and conflicts with Agency policy on field corn forage and fodder feeding restrictions. A revised Section B is required.
3. The herbicide terbacil (Sinbar) must be removed from the list of recommended herbicides for tank mixes for use on nuts and grapes. Terbacil is not registered for use on grapes and is registered for use on pecans only. A revised Section B is required.
4. Sufficient secondary residues may occur in cattle kidney and liver and in poultry kidney tissues from the pre-emergent use (before emergence of crops such as corn) to require tolerances for animal commodities. Tolerances must be proposed at the limit of detection for milk, eggs, and meat and meat-by-products of cattle, goats, hogs, horses, and sheep, and livestock liver and kidney, including poultry. A revised Section F is needed. Analytical method validation by an independent laboratory and by the EPA is required.

The label of this submission differs significantly from the previous submission (MRID No. 41323101). The differences are summarized in Table 1.

Parameter	Previous Proposed Label	Current Proposed Label
Formulation	16.22% (1.67 lbs. a.i./gallon)	11.93% (1.00 lb. a.i./gallon)
Name	Ignite Herbicide	Ignite 1SC Herbicide
Hazard	May be fatal if absorbed	Harmful
Food/Feed Use Sites	Soybeans, Field Corn, Apples, Tree Nuts, Vine Crops	Tree Crops (nuts, apples), Vine Crops (grapes)
Non-Food/Non-Feed Crop Sites	None	Field-grown shade trees and shrubs; landscape trimming/maintenance; recreational and public areas; farmsteads

The maximum application rate has not changed. The single application maximum rate is 1.5 lbs. a.i./acre. The maximum seasonal rate is 4.5 lbs. a.i./acre for tree and vine crops. All directions and restrictions related to soybeans and field corn have been removed from the label, including the grazing restriction for corn forage and fodder. Deficiency no. 2 above (and of the 08/08/90 Memorandum) has been resolved.

The new use site, farmsteads, includes application around farm building foundations, along fences, around shelterbelts, and general non-selective weed control. Application to crop growing/storage areas is not specified.

The label contains instructions for a tank mix with terbacil (sinbar) for use on tree nuts, vineyards (grapes), and apples. Terbacil is not registered for use on grapes and on any tree nut except pecans. The label must limit this tank mix to use on pecans and apples. Deficiency no. 3 above (and of the 08/08/90 Memorandum) is not resolved.

The label header specifies "For Non-Selective Weed Control of Emerged Weed in Tree and Vine Crops and Non-Crop Areas." The term "Vine Crops" must be replaced by "Grapes," the only vine crop for which a tolerance petition has been made. Likewise, the term "Tree" must be replaced by "Tree Nut and Apple." The registrant has petitioned for tolerances only for tree nuts and apples. The term "Tree" covers many other categories. The registrant does define the specific crops in the label text, but the label heading is misleading.

Deficiency no. 1 is not addressed in the current submission.

Deficiency no. 4 is not addressed in the current submission. The deletion of major animal feed items (field corn, soybean) from the proposed label does not eliminate the need for animal commodity tolerances. Apple pomace and almond hulls are significant feed items.

### Conclusion

The proposed label is not acceptable for food/feed crop sites because:

1. The label contains instructions for a tank mix with terbacil, and terbacil may not be used on nuts (except pecans) and grapes. The terbacil tank mix must be eliminated from the label or its use must be restricted to apples and pecans.

2. The label header implies that the herbicide may be used on any tree crop and any vine crop. Such is not the case. The registrant has requested tolerances for grapes, tree nuts, and apples. The header must reflect this limited use.

Additionally, the proposed label food/feed use sites are not acceptable before permanent tolerances are established for grapes, apples, nuts, almond hulls, and animal commodities and until an appropriate chemical name is adopted for the tolerance expression. These are deficiencies previously detailed (08/08/90 Memorandum, J. Garbus, DEB No. 6195). Specifically:

3. A revised Section F is required specifying the chemical name DL-homoalanine-4-yl(methyl phosphinate).
4. A revised Section F is required:
  - a. proposing tolerances at the limit of detection for milk, eggs, and meat and meat by-products of cattle, goats, hogs, horses, and sheep, and livestock (including poultry) liver and kidney;
  - b. proposing an analytical enforcement method for the animal commodities. Independent laboratory validation of the method is required.

Deletion of field corn and soybeans from the proposed label does not eliminate the need for animal commodity tolerances and a validated analytical method for enforcing the tolerances. Apple pomace and almond hulls are animal diet items.

The registrant has added non-food/non-feed sites to the newly proposed label. Such uses are not in the purview of CBRS.

#### Recommendation

CBRS recommends against acceptance of the proposed label for the reasons stated above (item nos. 1 - 4 of the Conclusion).

#### Note to PM:

The new label downgrades the hazard from potentially fatal to harmful.

cc: RF, PP#8F3607, Circ., S. Funk, C.Furlow (PIB, FOD).

RDI:A. Rathman:11/12/91:E. Zager:11/12/91:

H7509C:CBRS:S.Funk:557-1430:CM#2:RM803-A:SF(1191.1):11/08/91.