



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

PC Code: 009801

**MEMORANDUM**

**DATE:** April 17, 2012

**SUBJECT:** Verification Memorandum for Bensulide for SF Bay Species

**FROM:** Susan Bartow, Chemical Review Manager  
Risk Management and Implementation Branch IV  
Pesticide Re-Evaluation Division (7508P)

A handwritten signature in blue ink, appearing to read "S. Bartow", is written over the text of the "FROM" field.

Kable Davis, Product Manager  
Herbicide Branch, Registration Division (7504P)

A handwritten signature in black ink, appearing to read "Kable Davis", is written over the text of the "FROM" field.

**THRU:** Steve Weiss, Acting Branch Chief  
Risk Management and Implementation Branch IV  
Pesticide Re-Evaluation Division (7508P)

A handwritten signature in black ink, appearing to read "Steve Weiss", is written over the text of the "THRU" field.

**TO:** Rochelle Richardson, Executive Assistant to the Director  
Environmental Fate and Effects Division (7507P)

This memorandum serves to provide additional information on the use pattern of bensulide not captured in the Label Use Information System (LUIS) process. RD and PRD's role in the verification process is to fill information gaps and provide division appropriate expertise as outlined in the LUIS Verification SOP for RD and PRD.

PRD provides information and status regarding changes to the chemical use (such as application parameters, cancellations, or label language) that occurred as a result of the reregistration process. RD provides information regarding changes to the chemical use that may have occurred after the date of the LUIS label extraction. In the case a "Data Doer Only"<sup>1</sup> report was conducted, the CRM and PM will ensure that all highest application rates are reflected on the EFED Spreadsheet. The CRM and PM have drafted the "Registration and Reregistration Verification" section of this memo to clarify knowledge gaps a risk assessor may encounter while using the data contained in the LUIS report.

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<sup>1</sup> This type of LUIS report is conducted when the AI of interest has more than 50 products. This report will contain: (1) products actively registered to the data doer, (2) all technical registrations regardless of registrant, and (3) all active California special local needs (SLN) registrations.

If further clarification is needed, please contact Susan Bartow or Kable Davis.

## **Registration and Reregistration Verification**

### **Date and Scope of the RED**

- The Interim Reregistration Eligibility Decision (IRED) for bensulide was issued in June 2000. In July 2006, EPA completed the organophosphate (OP) cumulative risk assessment. At that time, all OP IREDs were considered completed REDs.
- Besides the parent compound, the RED identifies two degradates, bensulide oxon (N-[(2-(diisopropoxyphosphinoylthio)-1-ethyl]- benzenesulfonamide) and benzenesulphonamide.
- Several types of application methods are used for bensulide end use products. These include chemigation, broadcast treatment, band treatment, spray treatment, and spot treatment.

### **Label Uses / Rates and Mitigation**

- Risk mitigation measures required by the IRED in June 2000 include:
  - To mitigate risks to agricultural workers:
    - for groundboom application, respirators for mixers and/or loaders were added; personal protective equipment or use of closed systems for commercial applicators was required;
    - for chemigation, respirators for mixing and/or loading were required; and this application was restricted to California and Arizona where acreage treated is low.
  - To mitigate worker risks from turf use:
    - prohibited all handheld application methods except one (retained for spot treatment only);
    - prohibited treatment of large turf areas like parks and recreation areas, except golf courses (see restrictions below for golf courses) (this measure also reduces risks to children and the environment);
    - required respirators and gloves for all remaining mixer/loader turf uses;
    - required respirators for all “for hire” applications;
    - required coveralls, gloves, and a respirator for application of granulars with a push spreader.
  - To mitigate residential risks:
    - added label language prohibiting use of any handheld application method;
    - added label language directing homeowners to water in the herbicide immediately after application, for safety reasons; and
    - prohibited treatment of large turf areas (i.e., parks, recreational areas).

- To mitigate ecological risks:
  - prohibited use on large non-golf course turf sites;
  - restricted golf course fairway use to a single grass type (bentgrass) in certain states;
  - restricted the number of fairway applications to one; and
  - limited the fairway application to the fall (minimizing exposure to birds during breeding season).
- No additional risk mitigation measures were established in the RED in July 2006.
- Mitigation measures identified in the IRED were placed on the stamped accepted product labels in July 2000.
- A summary of the active bensulide registrations can be found in Table 1.

### **Product Reregistration**

- Bensulide product reregistration is complete.

### **Registration Division Review**

- No changes have occurred in the use patterns of the end use products since the last accepted labels and no changes are pending.

**Table 1. Active Registrations for Bensulide**

<b>Registration #</b>	<b>Registration Name</b>	<b>Company Name</b>	<b>Form</b>	<b>% Active Ingredient</b>	<b>Restricted Use</b>
2217-696	BETAMEC 4 Pre-emergence Grass Killer	PBI/Gordon Corporation	Emulsifiable Concentrate	46	No
2217-778	PRE-SAN 7G	PBI/Gordon Corporation	Granular	7	No
2217-838	BETASAN 3.6G	PBI/Gordon Corporation	Granular	3.6	No
9198-172	Anderson's Weedgrass Preventer	The Andersons Lawn Fertilizer Division, Inc.	Granular	8.5	No
9198-176	Anderson's Goose/Crabgrass Control	The Andersons Lawn Fertilizer Division, Inc.	Granular	5.25	No
10163-196	BETASAN 4-E Selective Herbicide	Gowan Company	Emulsifiable Concentrate	46.4	No
10163-198	BETASAN 12.5 G	Gowan Company	Granular	12.5	No
10163-199	BETASAN 3.6G	Gowan Company	Granular	3.6	No
10163-200	PREFAR 4-E Herbicide	Gowan Company	Emulsifiable Concentrate	46	No
10163-201	BETASAN Technical	Gowan Company	Technical Chemical	92	No
10163-204	BETASAN 7-G Selective Herbicide	Gowan Company	Granular	7	No
10163-205	Handy Spray BETASAN Crabgrass Preventer	Gowan Company	Ready-to-Use Solution	46	No
10163-312	TECHNICAL BETASAN	Gowan Company	Technical Chemical	95.85	No
AZ080003	PREFAR 4-E	Gowan Company	Emulsifiable Concentrate	46	No
CA960003	PREFAR 4-E	Gowan Company	Emulsifiable Concentrate	46	No
NJ070001	PREFAR 4-E Herbicide	Gowan Company	Emulsifiable Concentrate	46	No