



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

**MEMORANDUM**

**Subject:** Fenbuconazole Review Studies

**From:** *for* Anthony F. Maciorowski, Chief  
Ecological Effects Branch  
Environmental Fate and Effects Division

*Douglas M. Hirsch*  
7/26/94

**To:** Cynthia Giles-Parker, Product Manager 22  
Registration Division

The following study (D195137) was reviewed by EEB for the registration of the new chemical Fenbuconazole (RH7592). This study provides information which can be used in the risk assessment for the registration of RH7592.

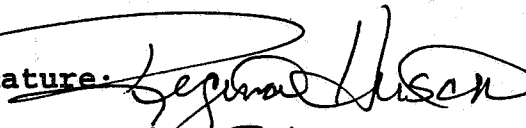
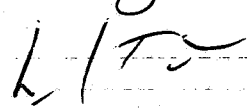
Data Requirements	Test	Bibliographic	Validation	Results
122-2 Aquatic Plant - Tier 1	96.7% a.i.	429147-02	Supplemental	EC <sub>50</sub> ~ 0.25 mg/L

If you have any questions concerning the above, please feel free to contact Regina Hirsch (305-5366).



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DATA EVALUATION RECORD

1. **CHEMICAL:** RH 7592 Technical (Fenbuconazole)  
Shaughnessey No. 129011.
2. **TEST MATERIAL:** RH 7592 technical; Batch No. BPP-3-1786R;  
96.7% active ingredient; a white powder.
3. **STUDY TYPE:** 122-2. Growth and Reproduction of Aquatic  
Plants - Tier 1. Species Tested: *Scenedesmus subspicatus*.
4. **CITATION:** Douglas, M.T. & R.W.S. Halls. 1990. The  
algistatic Activity of RH 7592 Technical. Rohm and Haas  
Report No. 90RC-0111. Conducted by Huntingdon Research  
Centre Ltd., Cambridgeshire, England. Submitted by Rohm and  
Haas Company, Philadelphia, PA. EPA MRID No. 429147-02.
5. **REVIEWED BY:**  
Regina Hirsch, Wildlife Biologist Signature:   
Ecological Effects Branch  
Environmental Fate and Effects Division Date: 20 July 1994
6. **APPROVED BY:**  
Les Touart, Section 1 Signature:   
Ecological Effects Branch  
Environmental Fate and Effects Division Date: 20 July 94
7. **CONCLUSIONS:** This study is scientifically sound but does  
not meet the guideline requirements for a Tier 1 non-target  
aquatic plant study. The test procedures deviated  
significantly from the recommended protocols. Exposure to  
RH7295 technical at a concentrations 0.25, 0.50, 1.0, and  
2.0 mg ai/L showed 47%, 55%, 65%, and 70% in growth  
reduction of *S. subspicatus* over the 4-day test period.
8. **RECOMMENDATIONS:** N/A.
9. **BACKGROUND:**
10. **DISCUSSION OF INDIVIDUAL TESTS:** N/A.
11. **MATERIALS AND METHODS:**  
A. **Test Species:** The alga used in the test, *Scenedesmus*  
*subspicatus*, came from Culture Centre of Algae and  
Protzoa c/o Freshwater Biological Association,

13. STUDY AUTHOR'S CONCLUSIONS/QUALITY ASSURANCE MEASURES:

No conclusions other than those stated were made by the author.

Quality Assurance and Good Laboratory Practice statements were included in the report indicating compliance with EPA Good Laboratory Practice Standards, 40 CFR Part 160.

14. REVIEWER'S DISCUSSION AND INTERPRETATION OF STUDY RESULTS:

- A. Test Procedure: The test procedure and the report did not meet the requirements of the SEP and Subdivision J guidelines. The following are deviations:

Light intensity during the test was 7 klux. The recommended light intensity is 4 klux.

It was not stated if the illumination was cool or warm. Guidelines recommend cool illumination.

The initial cell inoculum (20,000 cells/ml) was higher than recommended (3000 cells/ml).

The test temperature was not monitored during the study.

No justification was given as to why the author used *Scenedesmus subspicatus* rather than *Selenastrum capricornutum*.

Absorbance readings were not equated to number of cells per biomass for test concentrations.

- B. Statistical Analysis: Upon review of the cell density data, it is apparent that the test substance had considerable effect on cellular growth, up to 70% inhibition at concentrations of 2.0 mg/L.

- C. Discussion/Results: This study is scientifically sound but does not meet the guideline requirements for a Tier 1 non-target aquatic plant study. Exposure to RH7295 technical at concentrations 0.25, 0.50, 1.0, and 2.0 mg ai/L showed 47%, 55%, 65%, and 70% in growth reduction of *S. subspicatus* over the 4-day test period (See Table 2).

RIN 3477-95

EEB FENBUCONAZOLE REVIEW

Page 4 is not included in this copy.

Pages \_\_\_\_\_ through \_\_\_\_\_ are not included.

The material not included contains the following type of information:

- ☐ Identity of product inert ingredients.
- ☐ Identity of product impurities.
- ☐ Description of the product manufacturing process.
- ☐ Description of quality control procedures.
- ☐ Identity of the source of product ingredients.
- ☐ Sales or other commercial/financial information.
- ☐ A draft product label: \_\_\_\_\_
- ☐ The product confidential statement of formula.
- ☐ Information about a pending registration action.
- ☒ FIFRA registration data.
- ☐ The document is a duplicate of page(s) \_\_\_\_\_.
- ☐ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.