

9-24-92



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

*Mcowicki*

SEP 24 1992

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OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT; Quinclorac - Submission of an Unscheduled DNA  
Synthesis Study in Support of Registration

TOX Chem No: 325A  
PC No: 128974  
DP Barcode Nos: D180499  
D180498  
D180500  
Submission Nos: S421488  
S421482  
S421489

FROM: William B. Greear, M.P.H. *William B Greear 9/21/92*  
Review Section IV, Toxicology Branch I  
Health Effects Division (H7509C)

TO: Vickie Walters/Robert Taylor, PM Team # 25  
Herbicide-Fungicide Branch  
Registration Division (H7505C)

THRU: Marion P. Copley, D.V.M., Section Head *MPC*  
Review Section IV, Toxicology Branch I  
Health Effects Division (H7509C) *Copley 9/14/92*

I. CONCLUSIONS:

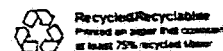
The Unscheduled DNA Synthesis Study (UDS) No: 91/10965,  
dated October 24, 1991 was negative for mutagenic effects.

II. REQUESTED ACTION:

RD has requested that TB-I evaluate a study titled "In Vivo/In Vitro Unscheduled DNA Synthesis in Rat Hepatocytes With  
Reg. No. 150 732 / BAS 514 H" which was submitted in support of  
registration by Bob Rohde of the BASF Corporation under a cover  
letter dated June 25, 1992.

III. DISCUSSION:

An acceptable UDS study #86/0135 dated June, 1986 has  
already been submitted. It was negative. This new study #91/10965  
has been examined and it also appears to be negative. An  
abbreviated DER is attached. The study is "Acceptable".



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Reviewed By: William B. Greear, M.P.H. *m(copley) FAWG*  
Review Section IV, Toxicology Branch I (H7509C)  
Secondary Reviewer: Marion P. Copley, D.V.M. *Marion Copley*  
Review Section IV, Toxicology Branch I (H7509C) *7/14/92*

DATA EVALUATION REPORT

STUDY TYPE: Guideline Series 83-3  
Mutagenicity- Unscheduled DNA Synthesis

EPA IDENTIFICATION NUMBERS:

Tox Chem No: 325A  
PC No: 128974  
MRID No: 423707-01

TEST MATERIAL: Reg. No. 150 732 / BAS 514H

SYNONYMS: Quinclorac, FACET

SPONSOR: BASF Corporation  
Research Triangle Park, NC 27709-3528

STUDY NUMBER: 91/10965

TESTING FACILITY: Cyto Test Research GMBH & Co.  
D-6101 Robdorf, FRG

TITLE OF REPORT: In Vivo/In Vitro Unscheduled DNA Synthesis in  
Rat Hepatocytes With Reg. No. 150 732 / BAS  
514 H

AUTHOR: Rolf Fautz

REPORT ISSUED: October 24, 1991

CONCLUSIONS: Negative for induction of DNA-damage leading to  
repair synythesis at 1000 mg/kg for 4 hrs and at  
100 and 1000 mg/kg for 16 hrs.

Classification: Acceptable

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SUMMARY: The following summary was abstracted directly from the report #91/10965 page 0010.

The test article Reg. No. 150 732 / BAS 514 ..H was assessed in the in vivo/ in vitro UDS assay for its potential to induce DNA repair (UDS) in the hepatocytes of rats.

The test article was formulated in 0.5 % CMC. This suspending agent was used as negative control. The volume administered orally was 10 ml/kg body weight (b.w.). After a treatment period of 4 and 16 hours, respectively, the animals were narcotized and sacrificed by liver perfusion. Primary hepatocyte cultures were established and exposed for 4 hours to <sup>3</sup>HTdR which is incorporated if UDS occurs (3).

The test article was tested at the following dose levels:

4 hour treatment period: 1000 mg/kg b.w.  
16 hour treatment period: 100 and 1000 mg/kg b.w.

For each dose level, including the controls, hepatocytes from three treated animals were assessed for the occurrence of UDS.

No toxic reactions of the animals occurred at any of the treatment periods or dose groups. In addition, neither the viability nor the in vitro attachment of the hepatocytes was dramatically affected due to the in vivo pre-treatment with the test article.

No dose level of the test article revealed UDS induction in the hepatocytes of the treated animals as compared to the current negative controls.

An appropriate reference mutagen (2-AAF, 100 mg/kg b.w.) was used as positive control. Treatment with 2-AAF revealed distinct increases in the number of nuclear and net grain counts.

#### CONCLUSION

In conclusion, it can be stated that during the study described and under the experimental conditions reported, the test article did not induce DNA-damage leading to repair synthesis in the hepatocytes of the treated rats.

Therefore, Reg. No. 150 732 / BAS 514 ..H is considered to be non-effective in this in vivo/in vitro UDS test system."

Comment: TB-I concurs with the authors conclusions.