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

JUN 22 1985

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Distribution of Metribuzin Addendum Final Report for Reg SAd (from G.W. data Call-in)

FROM: Arthur O. Schlosser, Chemist 7/22/85
Review Section #3
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

TO: Addressees

A copy of the Final Report of Metribuzin Addendum dated July 18, 1985 is attached to this memo.

addressees:

Amy Rispin (SIS)
Robert Taylor (PM-25)
Harry Craven (EEB)
Bill Burnam (TOX)
Sam Creeger (EAB)
John Jordan (EAB)

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DYNAMAC
CORPORATION

METRIBUZIN ADDENDUM

Final Report

Task 1: Review and Evaluation of Individual Studies

Contract No. 68-01-6679

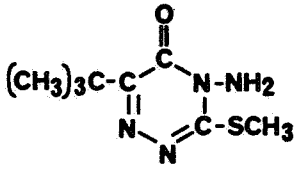
JULY 18, 1985

Submitted to:
Environmental Protection Agency
Arlington, VA 22202

Submitted by:
Dynamac Corporation
Enviro Control Division
The Dynamac Building
11140 Rockville Pike
Rockville, MD 20852

METRIBUZIN ADDENDUM

METRIBUZIN, BAY DIC 1468, BAY 94337,
LEXONE, SENCOR, SENCORAL, SENCOREX



4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one

Table of Contents

Study

CASE GS0181 METRIBUZIN STUDY 1 PM 25 06/21/83

CHEM 101101 Metribuzin

BRANCH EFB DISC --

FORMULATION 00 - ACTIVE INGREDIENT

FICHE/MASTER ID No MRID CONTENT CAT 01

Obrist, J.J. and J.S. Thornton. 1976. Soil thin-layer mobility of various pesticides: Report No. 48887. In Environmental fate data of Sencor (Special ground water call-in), October 14, 1984. Unpublished study received Nov. 23, 1984 under unknown admin. number; submitted by Mobay Chemical Corporation, Kansas City, MO.

SUBST. CLASS = S.

DIRECT RVW TIME = 5 (MH) START-DATE END DATE

REVIEWED BY: S. Hathorn III
TITLE: Staff Scientist
ORG: Dynamac Corp., Enviro Control Division, Rockville, MD
TEL: 468-2500

SIGNATURE: Scott Hathorn III DATE: June 18, 1985

APPROVED BY:
TITLE:
ORG:
TEL:

SIGNATURE: DATE:

CONCLUSIONS:

Mobility - Leaching and Adsorption/Desorption

1. This study is scientifically valid.

2. [^{14}C]Metribuzin was intermediately mobile to mobile in six soils; R_f values were 0.60 in a sandy loam, 0.59 in a sandy clay loam, 0.62 in a silt loam, 0.78 in an agricultural sand, and 0.68 or 0.79 in two silty clay loams, based on soil TLC tests.

3. This study partially fulfills EPA Data Requirements for Registering Pesticides by providing information on the mobility of metribuzin (unaged) in a sand, sandy loam, sandy clay loam, silt loam, and two silty clay soils.

MATERIALS AND METHODS:

Soil TLC plates (20 x 20 cm) were prepared using fine textured and sandy soils (Table 1) spread to a thickness of ~0.75 and ~1.5 mm, respectively, then air-dried. [^{14}C]Metribuzin (test substance uncharacterized, source unspecified) at 0.014 µCi/plate was spotted 2.5 cm from the bottom of triplicate plates. DDT was used as a reference standard. The plates were eluted in distilled water to a distance of 12.5 cm above the base, allowed to air dry and autoradiographed.

REPORTED RESULTS:

Metribuzin was intermediately mobile in sandy loam, sandy clay loam, and silt loam soils (R_f values of 0.60 ± 0.01, 0.59 ± 0.03, and 0.62 ± 0.01, respectively). Metribuzin was mobile with R_f values of 0.78 ± 0.03 in the agricultural sand and 0.68 ± 0.03 or 0.79 ± 0.01 in two silty clay soils.

DISCUSSION:

1. The test substance was uncharacterized.

2. Soil/water relationship values (K_d) were not reported.

Table 1. Soil characteristics.

Soil type	Sand	Silt	Clay	Organic matter	pH
	%				
Agricultural sand[a]	92	1	7	0.8	5.9
Sandy loam[a]	74	14	13	2.8	6.6
Sandy clay loam[a]	56	21	23	0.6	5.5
Silt loam[b]	18	57	25	5.1	7.9
Silty clay[b]	4	53	43	2.1	6.7
Silty clay[b]	0	41	59	0.5	6.0

R_f
.78
.60
.59
.62

[a] Sieved through a 420 µm screen.

[b] Sieved through a 240 µm screen.