ENVIRONMENTAL FATE & GROUND WATER BRANCH
PESTICIDE ENVIRONMENTAL FATE ONE LINE SUMMARY

Common Name: DITHIOPYR  
Chem. Name: 3,5-PYRIDINEDICARBOETHIOIC ACID, 2-(DIFLUOROMETHYL)-4-(2-METHYLPROPYL)-6-(TRIFLUOROMETHYL)-S,S-DIMETHYL ESTER
Shaugh. #: 128994  
CAS Number: 9786-45-8
Type Pest.: HERBICIDE
Formulation: 1% GRANULES
Uses: CONTROL OF ANNUAL GRASSES AND ANNUAL BROADLEAF WEEDS IN ORNAMENTAL PLANTS, FLOWERS, AND BULBS

Empir. Form: C_{15}H_{16}S_{2}NO_{2}F_{5}  
Mol. Weight: 401.41  
Solub.(ppm): 1.4 @ 25°C  
Henry’s : VP (Torr): 4E-6  
Log Kow : 4.75

Hydrolysis (161-1)  
ph 5: [*] STABLE  
ph 7: [*] STABLE  
ph 9: [*] STABLE  
ph : [ ]  
ph : [ ]  
ph : [ ]

Photolysis (161-2, -3, -4)  
Air : [ ]  
Soil :[#] STABLE, SiLm, ARTIF. SUN  
Water:[#] 62 HOURS

MOBILITY STUDIES (163-1)  
Soil Partition (Kd)  
1.[#] 7 SdLm  
2.[#] 8-10 SiLm  
3.[#] 27 CLAY  
4.[#] 35-65 VOLCANIC ASH LOAMS  
5.[ ]  
6.[ ]

Rf Factors  
1.[ ]  
2.[ ]  
3.[ ]  
4.[ ]  
5.[ ]  
6.[ ]

METABOLISM STUDIES (162-1,2,3,4)  
Aerobic Soil (162-1)  
1.[*] 336 DAYS SiLm  
2.[*] 490 DAYS CLAY  
3.[*] 418 DAYS SdLm  
4.[*] 900 DAYS VOLCANIC ASH SOILS  
5.[ ]  
6.[ ]  
7.[ ]

Anaerobic Soil (162-2)  
1.[ ]  
2.[ ]  
3.[ ]  
4.[ ]

Aerobic Aquatic (162-4)  
1.[ ]  
2.[ ]  
3.[ ]  
4.[ ]

Anaerobic Aquatic (162-3)  
1.[ ]  
2.[ ]  
3.[ ]  
4.[ ]

[*] - Acceptable Study. [#] = Supplemental Study
Common Name: DITHIOPYR

Date: 03/01/90

VOLATILITY STUDIES (163-2,3)
[] Laboratory:
[ ] Field:

DISSIPATION STUDIES (164-1,2,3,5)
Terrestrial Field (164-1)
1.[ ]
2.[ ]
3.[ ]
4.[ ]
5.[ ]
6.[ ]

Aquatic (164-2)
1.[ ]
2.[ ]
3.[ ]
4.[ ]
5.[ ]
6.[ ]

Forestry (164-3)
1.[ ]
2.[ ]

Other (164-5)
1.[ ]
2.[ ]

ACCUMULATION STUDIES (165-1,2,3,4,5)
Confined Rotational Crops (165-1)
1.[ ]
2.[ ]

Field Rotational Crops (165-2)
1.[ ]
2.[ ]

Irrigated Crops (165-3)
1.[ ]
2.[ ]

Fish (165-4)
1.[ ]
2.[ ]

Non-Target Organisms (165-5)
1.[ ]
2.[ ]
Common Name: DITHIOPYR

Ground Water Studies (158.75)

1. [ ]
2. [ ]
3. [ ]

Degradation Products
1. Normal Acid II comprised 27.3% of radioact. in photodeg. study
2. Reverse Acid III " 14.2% " " " " "
3.
4.
5.
6.
7.
8.
9.
10.

Comments

References: EFGWB Reviews
Writer: J. HANNAN

[*] - Acceptable Study. [#] = Supplemental Study
3,5-Pyridinedicarbothioic acid, 2-(difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-S,S-dimethyl ester

3,5-bis(Methylthiocarbonyl)-2-difluoromethyl-4-(2-methylpropyl)-6-trifluoromethyl pyridine

MON-15151; MON-7200/15100

2-(Difluoromethyl)-4-(2-methylpropyl)-5-[(methylthio)carbonyl]-6-(trifluoromethyl)3-pyridinecarboxylic acid

(Normal acid; II)

6-(Difluoromethyl)-4-(2-methylpropyl)-5-[(methylthio)carbonyl]-2-(trifluoromethyl)-3-pyridinecarboxylic acid

(Reverse acid; III)
2-(Difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-3,5-pyridinedicarboxylic acid

(Diacid; IV)

3,5-bis(Methylthiocarbonyl)-2-formyl-4-(2-methylpropyl)-6-trifluoromethyl pyridine

(V)

3-(Methylthiocarbonyl)-2-difluoromethyl-4-(2-methylpropyl)-6-trifluoromethylpyridine

(VI)

5.3