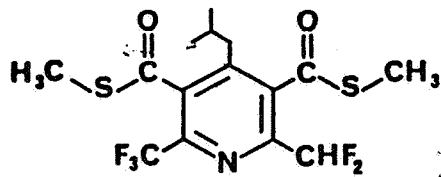


US EPA ARCHIVE DOCUMENT



3-1-90

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

Common Name: **DITHIOPYR** Date: 03/01/90
 Chem. Name : 3,5-PYRIDINEDICARBOTHIOIC ACID, 2-(DIFLUOROMETHYL)-4-(2-METHYLPROPYL)-6-(TRIFLUOROMETHYL)-S,S-DIMETHYL ESTER
 Shaugh. # : 128994 CAS Number: ~~97886-45-8~~
 Type Pest. : HERBICIDE **97886-45-8**
 Formulation: 1% GRANULES
 Uses : CONTROL OF ANNUAL GRASSES AND ANNUAL BROADLEAF WEEDS IN
 : ORNAMENTAL PLANTS, FLOWERS, AND BULBS
 :

Empir. Form: C₁₅H₁₆S₂NO₂F₅ VP (Torr): 4E-6
 Mol. Weight: 401.41 Log Kow : 4.75
 Solub.(ppm): 1.4 @ 25°C Henry's :

Hydrolysis (161-1)	Photolysis (161-2, -3, -4)
pH 5:[*] STABLE	Air :[]
pH 7:[*] STABLE	Soil :[#] STABLE, SiLm, ARTIF. SUN
pH 9:[*] STABLE	Water:[#] 62 HOURS
pH :[]	: []
pH :[]	: []
pH :[]	: []

MOBILITY STUDIES (163-1)

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

METABOLISM STUDIES (162-1,2,3,4)

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

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

[*] - Acceptable Study. [#] = Supplemental Study

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

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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.

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

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Common Name: DITHIOPYR

Date: 03/01/90

GROUND WATER STUDIES (158.75)

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

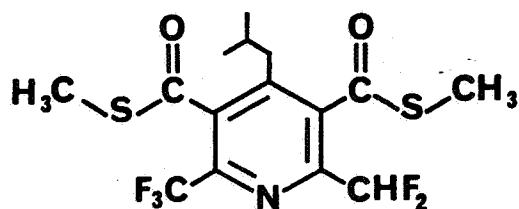
DEGRADATION PRODUCTS

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

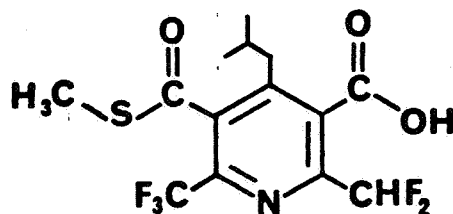
[*] - Acceptable Study. [#] = Supplemental Study



3,5-Pyridinedicarbothioic acid, 2-(difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-,S,S-dimethyl ester

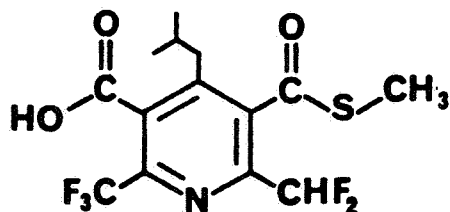
3,5-bis(Methylthiocarbonyl)-2-difluoromethyl-4-(2-methylpropyl)-6-trifluoromethyl pyridine

MON-15151; MON-7200/15100



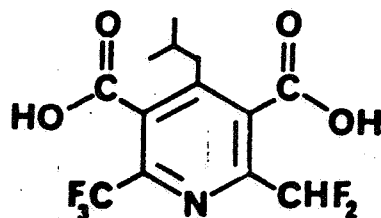
2-(Difluoromethyl)-4-(2-methylpropyl)-5-[(methylthio)carbonyl]-6-(trifluoromethyl)3-pyridinecarboxylic acid

(Normal acid; II)



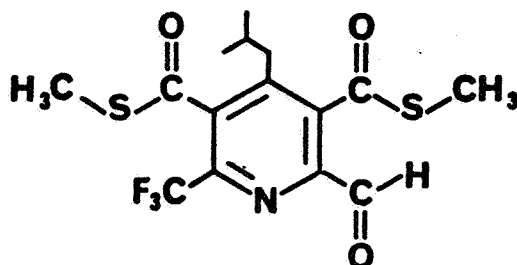
6-(Difluoromethyl)-4-(2-methylpropyl)-5-[(methylthio)carbonyl]-2-(trifluoromethyl)-3-pyridinecarboxylic acid

(Reverse acid; III)



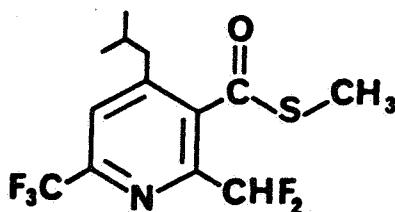
2-(Difluoromethyl)-4-(2-methylpropyl)-6-(trifluoromethyl)-3,5-pyridinedicarboxylic acid

(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)