Environmental Fate & Effects Division
PESTICIDE ENVIRONMENTAL FATE ONE LINE SUMMARY
TRIADIMEFON
Last Update on June 16, 1992
[V] = Validated Study [S] = Supplemental Study [U] = USDA Data

Common Name:TRIADIMEFON
Smiles Code:
PC Code # :109901 CAS #:43121-43-3 Caswell #:

Chem. Name : 1-(4-CHLOROPHENOXY)-3,3-DIMETHYL-1-(1H-1,2,4-TRIAZOL-1-YL)-2-BUTANONE
Action Type: FUNGICIDE (SYSTEMIC)

Trade Names:BAYLETON; AMIRAL
(Formul'tn):WP; EC; SUSP. CONCENTRATE; PASTE; DRY FLOWABLE
Physical State:

Use :TERRESTRIAL FOOD, NON-FOOD, FOOD+FEED, NON-FOOD+OUTDOOR,
Patterns :GREENHOUSE NON-FOOD, OUTDOOR RESIDENTIAL.
(% Usage) :
:

Empirical Form: $C_{14}H_{14}ClN_3O_2$
Molecular Wgt.: 291.73 Vapor Pressure: 1.30E -8 Torr
Melting Point : °C Boiling Point: °C
Log Kow : 3.18 pKa: @ °C
Henry's : 2.30E -9 Atm. M3/Mol (Measured) 7.03E-11 (calc'd)

Solubility in ...				Comments
Water	71.00E	ppm	@20.0 °C	
Acetone	E	ppm	@ °C	
Acetonitrile	E	ppm	@ °C	
Benzene	E	ppm	@ °C	
Chloroform	E	ppm	@ °C	
Ethanol	E	ppm	@ °C	
Methanol	E	ppm	@ °C	
Toluene	E	ppm	@ °C	
Xylene	E	ppm	@ °C	
	E	ppm	@ °C	
	E	ppm	@ °C	

Hydrolysis (161-1)
[ ] pH 5.0:
[ ] pH 7.0:
[S] pH 9.0:95% REMAINS AFTER 28 WKS
[S] pH 3.0:97% " " " "
[S] pH 6.0:95% " " " "
[ ] pH :

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Photolysis (161-2, -3, -4)
[ ] Water:10-12 HOURS
[ ] :
[ ] :
[ ] :

[V] Soil :STABLE
[ ] Air :

Aerobic Soil Metabolism (162-1)

	SOIL	%s, s, c	%OC	T1/2
[S]	SiCl	0 66 34	2.4	6 DA
[S]	SL	74 16 10	17.1	18 "

[ ]
[ ]
[ ]
[ ]

Anaerobic Soil Metabolism (162-2)
[S] SiCl 15 DAYS (STERILE CON-
[S] DITIONS INHIBIT BREAKDOWN)
[ ]
[ ]
[ ]
[ ]
[ ]

Anaerobic Aquatic Metabolism (162-3)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

Aerobic Aquatic Metabolism (162-4)
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

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Soil Partition Coefficient (Kd) (163-1)

[S] 1.85 IN SANDY LOAM
[S] 2.4 IN SAND
[S] 2.6 IN CLAY LOAM
[S] 6.9 IN SILT LOAM
[ ]
[ ]

Soil Rf Factors (163-1)

	%s, s, c	%OM	Rf
[ ]	91 1 1	0.8	0.27
[ ]	74 14 13	2.8	0.16
[ ]	56 21 23	0.6	0.20
[ ]	18 57 25	5.1	0.26
[ ]	0 41 59	0.5	0.20

Laboratory Volatility (163-2)

[ ]
[ ]

Field Volatility (163-3)

[ ]
[ ]

Terrestrial Field Dissipation (164-1)

	SOIL	% s, s, c	%OM		0-6"	6-12"
[S]	FLA.SAND	88 9 3	7.6	TRIAD.	5.5 MOS.	8.7 MOS
[S]				KWG	6.0 "	6.5 "
[S]	CA fSL	55 35 10	0.5	TRIAD	4.5 "	17 "
[S]				KWG	24 "	
[S]	OR LOAM	41 45 14	4.5	TRIAD	8.0 "	23 "

[ ]
[ ]
[ ]
[ ]

Aquatic Dissipation (164-2)

[ ]
[ ]
[ ]
[ ]
[ ]
[ ]

Forestry Dissipation (164-3)

[ ]
[ ]

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Long-Term Soil Dissipation (164-5)
[ ]
[ ]

Accumulation in Rotational Crops, Confined (165-1)
[ ]
[ ]

Accumulation in Rotational Crops, Field (165-2)
[ ] 1 YR ROTATION FOR SMALL GRAINS, BLACK-EYED PEAS.
[ ] 1 MONTH ROTATION FOR RADISHES.

Accumulation in Irrigated Crops (165-3)
[ ]
[ ]

Bioaccumulation in Fish (165-4)
[ ]
[ ] WHOLE FISH. DEGRADATES NOT IDENTIFIED.

Bioaccumulation in Non-Target Organisms (165-5)
[V] CLOVER PLANTS STUNTED @ 50 PPM; NITROGEN FIXATION
[ ] BY CLOVER APPARENT AT 10 PPM.

Ground Water Monitoring, Prospective (166-1)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Small Scale Retrospective (166-2)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Large Scale Retrospective (166-3)
[ ]
[ ]
[ ]
[ ]

Ground Water Monitoring, Miscellaneous Data (158.75)
[ ]
[ ]
[ ]

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Field Runoff (167-1)
[ ]
[ ]
[ ]
[ ]

Surface Water Monitoring (167-2)
[ ]
[ ]
[ ]
[ ]

Spray Drift, Droplet Spectrum (201-1)
[ ]
[ ]
[ ]
[ ]

Spray Drift, Field Evaluation (202-1)
[ ]
[ ]
[ ]
[ ]

Degradation Products

KWG 0519 (Baytan) has T1/2 in soil of 9-12 months
Triazole
Hydroxy triazole

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Comments

Aged residues are moderately mobile and have the potential to leach into ground water.

Kd of parent: 1.85 to 6.93

Koc = 300 (U)

References:
Writer : H. Manning, 12/18/90