

Environmental Fate & Effects Division
PESTICIDE ENVIRONMENTAL FATE ONE LINE SUMMARY
MYCLOBUTANIL

Last Update on February 23, 1990

[V] = Validated Study [S] = Supplemental Study [U] = USDA Data

Common Name:MYCLOBUTANIL

Smiles Code:

PC Code # :128857

CAS #:88671-89-0

Caswell #:

Chem. Name : α -BUTYL- α -(4-CHLOROPHENYL)-1H-1,2,4-TRIAZOLE-1-PROPANE-
NITRILE

Action Type:FUNGICIDE

Trade Names:SYSTANE 40W; RH-3866

(Formul'tn):40 WP

Physical State:

Use :
Patterns :
(% Usage) :
:

Empirical Form: $C_{15}H_{17}N_4Cl$

Molecular Wgt.: 288.78

Vapor Pressure: 1.60E -6 Torr

Melting Point : °C

Boiling Point: °C

Log Kow : 2.84 - 2.98

pKa: @ °C

Henry's : E Atm. M3/Mol (Measured)

4.28E -9 (calc'd)

Solubility in ...

Comments

Water	1.42E	2	ppm	@25.0	°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)

[S] pH 5.0:STABLE

[S] pH 7.0:STABLE

[S] pH 9.0:STABLE

[] pH :

[] pH :

[] pH :

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Photolysis (161-2, -3, -4)

[V] Water: STABLE

[] :
[] :
[] :

[V] Soil :~ 143 DAYS

[] Air :

Aerobic Soil Metabolism (162-1)

[S] 61-71 DAYS IN SILT LOAM, BUT
[] DEGRADATION RATES SLOWED AFTER
[] INCREASING AGING AND AFTER 240
[] DAYS 34-37% OF PARENT COMPOUND
[] WAS STILL PRESENT.
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Anaerobic Soil Metabolism (162-2)

[S] NO APPRECIABLE DEGRADATION IN
[] 62 DAYS.
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Anaerobic Aquatic Metabolism (162-3)

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Aerobic Aquatic Metabolism (162-4)

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Soil Partition Coefficient (Kd) (163-1)

[]	Sd	Si	Cl	%OM	Kads	Kdes
[V]	38	34	28	3.42	4.44	1.19
[V]	98	0	2	0.95	1.46	0.47
[V]	16	58	26	2.05	7.08	4.18
[V]	70	20	10	2.90	9.77	4.08
[V]	32	14	54	0.44	2.39	0.58

Soil Rf Factors (163-1)

[S] MOST OF ACTIV. RECOVERED FROM
[] SiLm COLUMNS (AEROBICALLY
[] AGED SAMPLES) LEACHED WITH
[] 20" WATER WAS PRESENT AS
[] PARENT IN TOP 10 CM SOIL.
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Laboratory Volatility (163-2)

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Field Volatility (163-3)

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Terrestrial Field Dissipation (164-1)

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Aquatic Dissipation (164-2)

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Forestry Dissipation (164-3)

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Long-Term Soil Dissipation (164-5)

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Accumulation in Rotational Crops, Confined (165-1)

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Accumulation in Rotational Crops, Field (165-2)

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Accumulation in Irrigated Crops (165-3)

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Bioaccumulation in Fish (165-4)

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Bioaccumulation in Non-Target Organisms (165-5)

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Ground Water Monitoring, Prospective (166-1)

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

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

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Ground Water Monitoring, Miscellaneous Data (158.75)

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Field Runoff (167-1)

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Surface Water Monitoring (167-2)

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Spray Drift, Droplet Spectrum (201-1)

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Spray Drift, Field Evaluation (202-1)

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Degradation Products

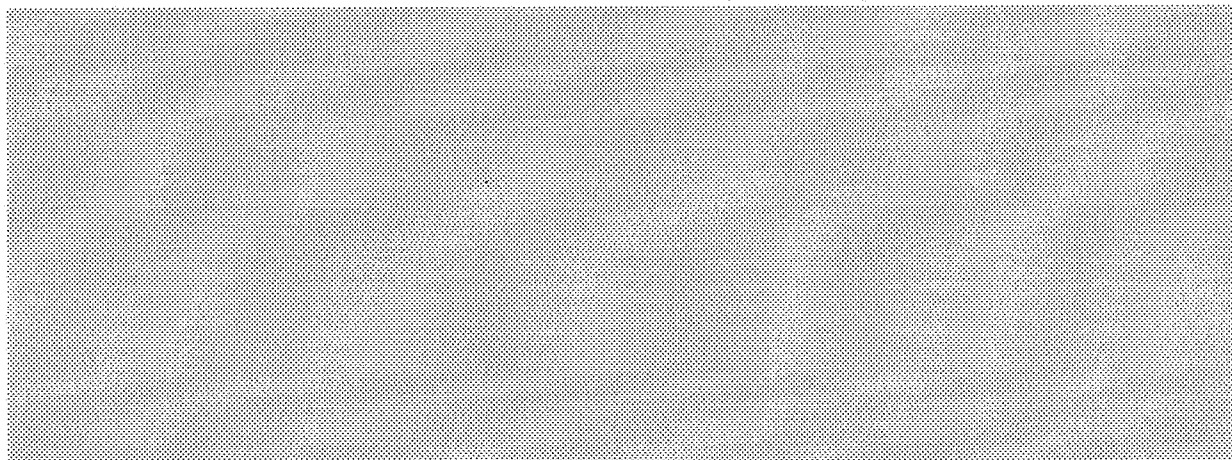
1,2,4-triazole (= 15% from aerobic soil metabolism, and this compound is very mobile)

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Comments



References:

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