










Insecticide Resistance (IRAC) Classification	Not applicable
Fungicide Resistance (FRAC) Classification	4
Physical State	Colourless crystals

## Formulations:

Property 	Value
Example manufacturers of products using this active	<ul style="list-style-type: none"> <li>• Clayton</li> <li>• ISK Biosciences Europe SA</li> <li>• Syngenta</li> </ul>
Example products using this active	<ul style="list-style-type: none"> <li>• Apron</li> </ul>
Associated substances	-
UK LERAP status	LERAP Category B (may vary across products)
Formulation and application details	-


## ENVIRONMENTAL FATE

Property 	Value	Source/Quality Score/Other Information 	Interpretation 
Solubility - In water at 20°C (mg l <sup>-1</sup> )	7100	K4	High
Solubility - In organic solvents at 20°C (mg l <sup>-1</sup> )	550000	C4 - Benzene	-
	9100	C4 - Hexane	-
	650000	C4 - Methanol	-
	750000	C4 - Dichloromethane	-
Melting Point (°C)	67.9	L2 - Product	-
Boiling Point (°C)	-	-	-
Degradation point (°C)	-	-	-
Flashpoint (°C)	-	-	-
Octanol-water partition coefficient at pH 7, 20°C	P: 4.47 X 10 <sup>01</sup>	Calculated	-
	Log P: 1.65	K4	Low
Bulk density (g ml <sup>-1</sup> )/Specific gravity	1.2	L3	-
Dissociation constant (pKa) at 25°C	0	L3	-
	Note: Very strong acid		
Vapour pressure at 25°C (mPa)	0.75	L3	Volatile

Henry's law constant at 25°C (Pa m <sup>3</sup> mol <sup>-1</sup> )	1.60 X 10 <sup>-05</sup>	L3	Non-volatile
Henry's law constant at 20°C (dimensionless)	4.70 X 10 <sup>-09</sup>	K3	Non-volatile
Soil degradation (days) (aerobic)	DT50 (typical): 42	K4	Moderately persistent
	DT50 (lab at 20°C): 42	K4	Moderately persistent
	DT50 (field): 46	A5	Moderately persistent
	DT90 (lab at 20°C): -	-	-
	DT90 (field): -	-	-
	Note: Other sources: DT50 70 days (DW4)		
Aqueous photolysis DT50 (days) at pH 7	Value: Stable Note: -	R3	Stable
Aqueous hydrolysis DT50 (days) at 20°C and pH 7	Value: 106 Note: pH sensitive: DT50 200 days at pH 1, 115 days at pH 9, 12 days at pH 10, all at 20 degC	K4	Persistent
Water-Sediment DT50 (days)	56	K4	Moderately fast
Water phase only DT50 (days)	56	K4	Stable
GUS leaching potential index 	2.11	Calculated	Transition state
SCI-GROW groundwater index (µg l <sup>-1</sup> ) for a 1 kg ha <sup>-1</sup> or 1 l ha <sup>-1</sup> application rate 	Value: 8.91 X 10 <sup>-02</sup> Note: -	Calculated	-
Potential for particle bound transport index 	-	Calculated	Medium
Koc - Organic-carbon sorption constant (ml g <sup>-1</sup> )	500 pH sensitivity: Note: Other sources: 165 mL/g (L3)	DW4	Slightly mobile
Freundlich isotherm	Kf: - 1/n: 0.83 Note: -	Q3	-
Maximum UV-vis absorption L mol <sup>-1</sup> cm <sup>-1</sup>	-	-	-

### Key metabolites:

Metabolite	Formation Medium	Estimated Maximum Occurrence Fraction	91/414 Relevancy 
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N-(2,6-dimethylphenyl)-N-(methoxyacetyl)alanine  
(Ref: CGA 62826) 

Soil




0.536

-

Other known metabolites:

Metabolite name and reference	Aliases	Formation Medium / Rate	Estimated Maximum Occurrence Fraction
2,6-dimethylacetanilide	-	Soil (Aerobic)	-
N-(3-hydroxy-2,6-dimethylphenyl)-N-(methoxyacetyl)-L-alanine	-	Water (Anaerobic)	-




ECOTOXICOLOGY

Property 	Value	Source/Quality Score/Other Information 	Interpretation 
Bio-concentration factor	BCF: 7 CT50 (days): Not available	F4 Whole fish	Low potential -
Bioaccumulation potential	-	Calculated	Low
Mammals - Acute oral LD50 (mg kg <sup>-1</sup> )	633	L3 Rat	Moderate
Mammals - Short term dietary NOEL (mg kg <sup>-1</sup> ):	2.5	Z2 Rat	High
	(ppm diet): -		-
Birds - Acute LD50 (mg kg <sup>-1</sup> )	923	L3 <i>Coturnix japonica</i>	Moderate
Birds - Short term dietary (LC50/LD50)	-	-	-
Fish - Acute 96 hour LC50 (mg l <sup>-1</sup> )	100	L3 <i>Oncorhynchus mykiss</i>	Moderate
Fish - Chronic 21 day NOEC (mg l <sup>-1</sup> )	-	-	-
Aquatic invertebrates - Acute 48 hour EC50 (mg l <sup>-1</sup> )	28	L3 <i>Daphnia magna</i>	Moderate
Aquatic invertebrates - Chronic 21 day NOEC (mg l <sup>-1</sup> )	-	-	-
Aquatic crustaceans - Acute 96 hour LC50 (mg l <sup>-1</sup> )	0.64	F3 <i>Americamysis bahia</i>	Moderate
Sediment dwelling organisms - Acute 96 hour LC50 (mg l <sup>-1</sup> )	-	-	-
Sediment dwelling organisms - Chronic 28 day NOEC, static, water (mg l <sup>-1</sup> )	-	-	-

Sediment dwelling organisms - Chronic 28 day NOEC, sediment (mg kg <sup>-1</sup> )	-	-	-	-
Aquatic plants - Acute 7 day EC50, biomass (mg l <sup>-1</sup> )	85		F3 <i>Lemna gibba</i>	Low
Algae - Acute 72 hour EC50, growth (mg l <sup>-1</sup> )	33		L3 <i>Scenedesmus subspicatus</i>	Low
Algae - Chronic 96 hour NOEC, growth (mg l <sup>-1</sup> )	10		Q2 Unknown species	Low
Honeybees - Acute 48 hour LD50 (µg bee <sup>-1</sup> )	200		L3 Contact	Low
Earthworms - Acute 14 day LC50 (mg kg <sup>-1</sup> )	1000		L3 <i>Eisenia foetida</i>	Moderate
Earthworms - Chronic 14 day NOEC, reproduction (mg kg <sup>-1</sup> )	-		-	-
Other soil macro-organisms - e.g. Collembola	LR50 / EC50 / NOEC / % Effect	-	-	-
Other arthropod (1)	LR50 g ha <sup>-1</sup> : % Effect:	-	-	-
Other arthropod (2)	LR50 g ha <sup>-1</sup> : % Effect:	-	-	-
Soil micro-organisms	-	-	-	-
Mesocosm study data	NOEAEC mg l <sup>-1</sup> : NOEAEC mg l <sup>-1</sup> :	-	-	-

## HUMAN HEALTH AND PROTECTION

### General:

Property 	Value	Source/Quality Score/Other Information 	Interpretation 
Mammals - Acute oral LD50 (mg kg <sup>-1</sup> )	633	L3 Rat	Moderate
Mammals - Dermal LD50 (mg kg <sup>-1</sup> body weight)	> 3100	L3 Rat	-
Mammals - Inhalation LC50 (mg l <sup>-1</sup> )	3.6	L3 Rat	-
ADI - Acceptable Daily Intake (mg kg <sup>-1</sup> bw day <sup>-1</sup> )	0.08	JMPR 2002	-

ARfD - Acute Reference Dose (mg kg <sup>-1</sup> bw day <sup>-1</sup> )	None allocated	JMPR 2002	-
AOEL - Acceptable Operator Exposure Level - Systemic (mg kg <sup>-1</sup> bw day <sup>-1</sup> )	-	-	-
Dermal penetration studies (%)	-	-	-
Dangerous Substances Directive 76/464	-	-	-
Exposure Limits	-	-	-
Exposure Routes	Public: - Occupational: -		
Examples of European MRLs (mg kg <sup>-1</sup> )	Value: Table grapes and lettuce: 2.0; Wine grapes, pomes and cabbages: 1.0; Strawberries, citrus, sweet peppers, cucumbers, onions and garlic: 0.5; Carrots, cauliflower and broccoli: 0.1; Other vegetables, other fruit and cereal grains: 0.05  Note: [Current May 2007.] [Limits include metalaxyl-M applying to sum of isomers/enantiomers.] For the EU pesticides database <a href="#">click here</a>		
Drinking Water MAC (µg l <sup>-1</sup> )	-	-	-

### Health issues:

Carcinogen	Endocrine disrupter	Reproduction / development effects	Acetyl cholinesterase inhibitor	Neurotoxicant	Respiratory tract irritant	Skin irritant	Eye irritant
X	-	X	X	X	-	✓	✓
General human health issues		[Moderately toxic], [Liver toxicant]					

- ✓ : Yes, known to cause a problem  
 X : No, known not to cause a problem  
 ? : Possibly, status not identified  
 - : No data

### Handling issues:

Property	Value	Source/Quality Score/Other Information	Interpretation
General	[No information available]		
EC Risk Classification	[Xn - Harmful: R22], [Xi - Irritant: R43] [N - Dangerous for the environment: R52, R53]		
EC Safety Classification	S2, S13, S24, S37, S46, S61		
WHO Classification	III	-	Slightly hazardous
US EPA Classification (formulation)	-	-	-
UN Number	-		
Waste disposal & packaging	-		

## TRANSLATIONS

Language	Name
English	metalaxyl
French	metalaxyl
German	Metalaxyl
Danish	metalaxyl
Italian	metalaxil
Spanish	metalaxil
Greek	metalaxyl
Slovenian	metalaksil
Polish	metalaksyl
Swedish	metalaxyl
Hungarian	metalaxyl
Dutch	metalaxyl

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