

**PRODUCT INFO
& DATASHEET**

TECHNICAL INFORMATION GUIDE

EFFITICK 125 EC

(Amitraz 125 g/l EC)

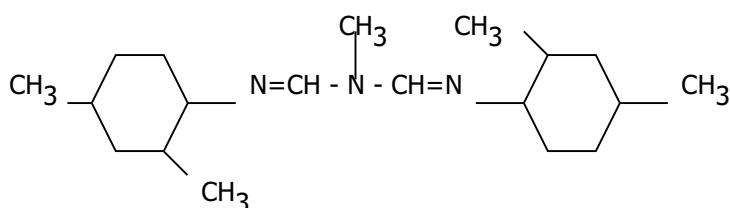
INTRODUCTION

EFFITICK 125 EC is a non-systemic amidine insecticide and miticide product which affects target pests by both contact and respiratory actions. It is particularly recommended for the control of manges, ticks, lice and melophagous. It is relatively non-toxic to predatory insects.

Main veterinary uses are against all stages of Arachnida, Demodecidid, Siphonoptera and Trichodectidae on cattle, dogs, goats, sheep and *Varroa jacobsoni* on honeybees. Effective against strains of ticks resistant to other chemical classes of ixodicide. The unique expellent action of Amitraze causes ticks to withdraw mouthparts rapidly and fall off the host animal.

PHYSICAL AND CHEMICAL PROPERTIES OF THE TECHNICAL GRADE

Chemical name : N - methylbis (2,4 - xylyliminomethyl) amine (IUPAC)
N' - 2,4 - dimethylphenyl) - N - [[(2,4-dimethylphenyl) imino] methyl] -
N - methylmethaniminamide (CA)
Common name : Amitraz (BSI, ISO-E, ANSI, BPC, JMAF, ESA).
Amitraze (ISO-F)
CAS Registry Nr : 330891-
Structural formula :



Empirical formula : C₁₉H₂₃N₃
Molecular weight : 293.4
Physical form : Colourless monoclonic needles. Odourless.
Density : 1.128 g/cm³.
Melting point : 86-88°C.
Vapour pressure : 0.051 mPa at 20°C, 0.34 mPa at 25°C.
Ko/w : 316 000 (25°C, pH 5.8). Basic, pK_a 4.2.
Stability : Degraded by light on soil surfaces DT₅₀ < 1 h; unstable at pH < 7 and a slow deterioration of the moist compound occurs on prolonged standing.
Soil DT₅₀ < 1 day. 20°C. Hydrolysis rate under stated relevant conditions: pH 7 at 20°C: medium life longer than 12 weeks; pH 2 at 20°C: very unstable (86 % decomposition in 1 day); pH 12 at 20°C: fairly stable (20 % decomposition in 12 weeks).
Solubility: In water at 20°C, 1 mg/l. In acetone, 40 % w/v stable; in methanol, 2.5 % w/v unstable, in xylol, 30 % w/v stable.
Corrosiveness : Non-corrosive.
Compatibility : Compatible with many insecticides and fungicides, but incompatible with alkaline materials, parathion and others, and with acid substances and wet solutions.

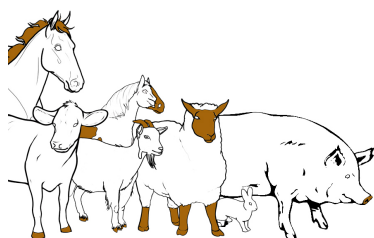
FORMULATION CHARACTERISTICS

Formulation type : EC - Emulsifiable Concentrate
Active ingredient content : Amitraz (pure) 125 g/l
Purity : Amitraz technical min. 98 %

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SAP INTERNATIONAL CORPORATION bvba Krekelenberg 69, B-2980 Zoersel, Belgium
Tel. +32-3-309.06.51 Fax. +32-3-309.19.31 Email : info@sico.be Website : www.sico.be

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Composition	Amitraz (tech.)	127.6 g/l
	Solvent/emulsifier/stabilizer	801.4 g/l
Appearance	Limpid yellowish liquid	
Specific gravity (20°C)	0.930 +/- 0.025	Flash point
	Approx. + 45°C	
Emulsion characteristics	Good - conform to CIPAC methods	
Stability	No significant modification of specifications after accelerated aging test (14 days at 54°C)	
Shelf life	Min. 2 years	

Quality & specifications Conform to international standards (FAO/WHO, CIPAC methods)

RATES OF APPLICATION

EFFITICK 125 EC can be used for dipping or for spraying. Dilute the recommended dosage rate with clean water the day of the application. In order to obtain a homogeneous mixture, agitate thoroughly the solution.

Bovines

20 ml per 10 litres of water. Repeat the treatment after 7 to 10 days. This product is efficient against mange and lice. Spray the solution on all parts of the animal's body. It is necessary to treat all the animals even the healthy ones. Spray walls, floor and all equipment being in contact with the animals. A routine treatment every 2 or 3 months allows to maintain all the animals in good health.

Pigs

EFFITICK 125 EC allows to control both mange and lice. The product can be directly sprayed on the animals even directly on scabs. It is necessary to cover drinking water and to evacuate the food. Destroy the litter and clean the boxes. For a routine treatment, use a solution of 80 ml of EFFITICK 125 EC in 10 litres of water for a single treatment. In case of serious infestation of mange and lice, use 40 ml of Amitraz 125 g/l ec in 10 l of water and repeat this treatment after 7 to 10 days. Spray the porks thoroughly up to run off and especially around the ears, the articulations, between the forelegs, and around the groin. Spray walls, floor and all parts of piggery. All the animals have to be treated (infested or not). For an effective control of the manges and lice: treat boars every 2 or 3 months. Sows will be treated just before they enter the dropping boxes. Piglets will be treated at the weaning and before they enter the fattening boxes. Each new animal should be treated before it joins the group. For disinfecting the dropping and fattening boxes and the empty piggeries, dilute 80 ml of EFFITICK 125 EC in 10 litres water.

Sheep

Treatment with EFFITICK 125 EC controls mange, ticks, lice and allows a long lasting control against new infestations of ticks. EFFITICK 125 EC has not a strong smell and therefore there is no problem of recognition between mother and lamb. Dilute 40 ml in 10 litres of water. Dipping: Before dipping allow animals to rest and give them sufficient water to drink. Keep the animals at least for 30 sec. in the bath, the head must be immersed at least one time. Spraying: Spray animals thoroughly till wool and skin are wet.

NB: EFFITICK 125 EC may also be used to treat ectoparasites on other species of animals such as goat, buffaloes and camels; EFFITICK 125 EC **is not indicated for use on horses or other Equidae.**

Withdrawal period

Milk : 7 days
Meat : 7 days

TOXICOLOGY AND ENVIRONMENTAL EFFECTS

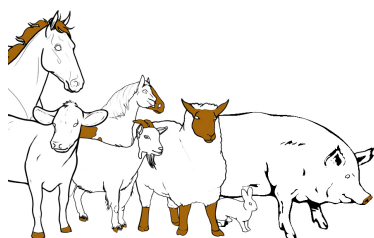
Active Ingredient

				<u>Amitraz</u>	
Acute oral -	LD50	(rats)	800	mg/kg	
		(dogs)		100	mg/kg
Acute dermal -	LD50	(rabbits)		> 1,600	mg/kg
		(rats)		> 2,000	mg/kg
Acute inhalation - LC50	(4h)	(rats)		> 2.3	mg/l air
Eye irritation		(rabbits)		Non-irritant	
Skin irritation		(rabbits)		Non-irritant	
Chronic toxicity					

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NOEL 2-y feeding trials	(rats)	50	mg/kg diet daily
	(dogs)	0.25	mg/kg daily
Acceptable daily intake for	man	0.003	mg/kg bw.
Toxicity to fish LC50 (48h)	trout	2.7 - 4.0	mg/l
	(48h) Japanese carp	1.17	mg/l
	(96h) bluegill sunfish	1.30	mg/l
Toxicity to birds		Low toxicity	
LD50 (8-d)	mallard duck	7,000	mg/kg
	Japanese quail	1,800	mg/kg
Toxicity to bees/predatory insects		Low toxicity	
LD50 ingestion		12	µg/bee

Formulation

Acute oral (calculated)	LD50	rat	> 4,000	mg/kg
Acute dermal (calculated)	LD50	rat	> 12,800	mg/kg
Eye irritation		(rabbit)	Low irritant	
Skin irritation		(rabbit)	Low irritant	
Toxicity to fish			Harmful	
Toxicity to bees			Low hazard in fields	

SAFETY PRECAUTIONS

This product is harmful if swallowed and irritant to skin. Observe also the general rules for handling the crop protection chemicals:

- Keep out of reach of children, away from food, drink or feed.
- Wear suitable protective clothing, gloves, goggles and face shield.
- When using, do not eat, drink or smoke.
- Wash any contamination from skin or eyes immediately.
- Do not breathe spray mist.
- Wash hands and exposed skin before eating, drinking or smoking, before meals and after works.
- If you feel unwell, seek medical advice (show label where possible).

Storage and disposal

- Store in the original container, tightly closed, in a cool, well ventilated local, protected heat, away from food or feed.
- Do not reuse the container for any other purpose but destroy rinsed container by puncturing and crushing.
- **Harmful to fish:** do not contaminated ponds, waterways or ditches with chemical or used container.

EMERGENCY GUIDELINES

Symptoms of poisoning

Clinical signs of poisoning with amitraz formulation involve the central nervous system such as depression, ataxia, stupor and coma are most likely due to the organic solvent. Amitraz may cause bradycardia, hypotension, headache, nausea, vomiting, diarrhoea, dizziness, sedation and incoordination.

First aid

- In case of skin contact, remove all contaminated clothing and wash the patient thoroughly with plenty of water and soap.
- In case of eye contact, flush eyes with copious amounts of water for at least 15 minutes.
- If by inhalation, move to fresh air, administer oxygen if necessary. Keep the patient warm and quiet.
- If swallowed, gastric lavage should be carried out with protection of the airways. Keep the patient at absolute rest and seek medical assistance immediately. Do not induce vomiting to an unconscious patient.

Note to physician

No specific antidote known. Symptomatic treatment.

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