
Product Data Sheet

Product Name: Amitraz (BTS-27419)

Cat. No.: GC33983

Chemical Properties

Cas. No. 33089-61-1

SMILES CN(/C=N/C1=CC=C(C)C=C1C)/C=N/C2=CC=C(C)C=C2CFormula $C_{19}H_{23}N_3$

M.Wt 293.41

Solubility DMSO : 50 mg/mL (170.41 mM); Water : < 0.1 mg/mL (insoluble)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Amitraz is a formamidine acaricide.¹ It induces mortality and reduces fecundity in adult *R. annulatus* when used at a concentration of 300 ppm. It is lethal to adult *H. bispinosa* (LC₅₀ = 181 ppm). Amitraz (100 μM) reduces viability of primary rat hippocampal cells.² *In vivo*, amitraz (170 mg/kg) increases malondialdehyde (MDA) and nitric oxide (NO) levels and decreases superoxide dismutase (SOD), catalase (CAT), and glutathione peroxidase (GPX) activities in rat liver, kidney, brain, spleen, and testis.³ Dietary administration of amitraz reduces larval weight and larval and pupal survival in honey bee (*A. mellifera*) populations.⁴

1. Ravindran, R., Jyothimol, G., Amithamol, K.K., et al. In vitro efficacy of amitraz, coumaphos, deltamethrin and lindane against engorged female *Rhipicephalus* (*Boophilus*) *annulatus* and *Haemaphysalis bispinosa* ticks. *Exp. Appl. Acarol.* 75(2):241-253(2018) 2. Del Pino, J., Frejo, M.T., Baselga, M.J.A., et al. Impaired glutamatergic and GABAergic transmission by amitraz in primary hippocampal cells. *Neurotoxicol. Teratol.* 50:82-87(2015) 3. Kanbur, M., Sili?, Y., Eraslan, G., et al. The toxic effect of

Caution: Product has not been fully validated for medical applications. For research use only.

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cypermethrin, amitraz and combinations of cypermethrin-amitraz in rats Environ. Sci. Pollut. Res. Int.23(6)5232-5242(2016) 4.Dai, P., Jack, C.J., Mortensen, A.N., et al.Chronic toxicity of amitraz, coumaphos and fuvalinate to Apis mellifera L. larvae reared in vitro Sci. Rep.8(1)5635(2018)

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