



# Eprinomectin B1a PRODUCT DATA SHEET

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<b>Product Name:</b>	Eprinomectin B1a
<b>Product Number:</b>	E051
<b>CAS Number:</b>	133305-88-1
<b>Molecular Formula:</b>	$C_{50}H_{75}NO_{14}$
<b>Molecular Weight:</b>	914.1
<b>Appearance:</b>	White solid
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	<p>Eprinomectin B1a is a semi-synthetic analogue of avermectin B1a prepared by oxidation of the 4"-hydroxy moiety and reductive amination followed by acetylation. Eprinomectin B1a is the major component (&gt;90%) of the commercial product for endo- and exo-parasite control, eprinomectin. The avermectins and milbemycins are also potent insecticides and acaricides.</p> <p>Eprinomectin B1a is soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</p>
<b>Mechanism of Action:</b>	<p>Members of the avermectin/milbemycin class exert their anthelmintic effects by binding to glutamate-gated chloride channels expressed on nematode neurones and pharyngeal muscle cells.</p>
<b>References:</b>	<p>4-Keto- and 4-amino-4-deoxy avermectin compounds and substituted amino derivatives thereof. Mrozik H.H. et al. 1984 US Patent 4,427,663.</p> <p>Synthesis of 4"-epi-amino-4"-deoxyavermectins B1. Cvetovich R.J. et al. J. Org. Chem. 1994, 59, 7704.</p> <p>Efficacy in sheep and pharmacokinetics in cattle that led to the selection of eprinomectin as a topical endectocide for cattle. Shoop W.L. et al. Int. J. Parasitol. 1996, 26, 1227.</p>

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