**PRODUCT INFORMATION**

**Ivermectin B$_{1b}$**  
*Item No. 23824*

**CAS Registry No.:** 70209-81-3  
**Formal Name:** 5-O-demethyl-25-de(1-methylpropyl)-22,23-dihydro-25-(1-methylethyl)-avermectin A$_{1a}$  
**Synonym:** 22,23-dihydro Aavermectin B$_{1b}$  
**MF:** $\text{C}_{47}\text{H}_{72}\text{O}_{14}$  
**FW:** 861.1  
**Purity:** $\geq95\%$  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** $\geq2$ years

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

**Laboratory Procedures**

Ivermectin B$_{1b}$ is supplied as a solid. A stock solution may be made by dissolving the ivermectin B$_{1b}$ in the solvent of choice, which should be purged with an inert gas. Ivermectin B$_{1b}$ is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

**Description**

Ivermectin B$_{1b}$ is the minor component (<20%) of the anthelmintic ivermectin, which is mainly comprised of ivermectin B$_{1a}$ (>80%; Item No. 18768). It produces antiparasitic activity by binding to glutamate-gated chloride channels expressed on nematode neurons and pharyngeal muscle cells, inducing irreversible channel opening and very long-lasting hyperpolarization/depolarization of the neuron/muscle cell, thereby blocking further function. Formulations containing ivermectin inhibit replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Vero/hSLAM cells.

**References**