



Nigericin sodium PRODUCT DATA SHEET

issue date 01/16/2018

Product Name:	Nigericin sodium
Product Number:	N015
CAS Number:	28643-80-3
Molecular Formula:	$C_{40}H_{67}NaO_{11}$
Molecular Weight:	746.94
Form:	Powder
Appearance:	White to off-white powder
Storage Conditions:	2-8°C
Description:	<p>Nigericin sodium is an antibiotic ionophore produced by <i>Streptomyces hygroscopicus</i>. Nigericin is insoluble in water but soluble in methanol and chloroform (10 mg/mL).</p> <p>This product is considered a dangerous good. Quantities above 1 g may be subject to additional shipping fees. Please contact us for specific questions.</p>
Mechanism of Action:	Nigericin sodium acts as an antiporter of H and K ions by exchanging K for H. This ionic imbalance rapidly decreases the intracellular pH.
Cancer Applications	One study showed the increased intracellular acidity halted DNA synthesis in Ehrlich ascites carcinoma lending support to use as a chemotherapeutic agent.
References:	Margolis, Leonid B., et al. "K ⁺ /H ⁺ -antiporter Nigericin Arrests DNA Synthesis in Ehrlich Ascites Carcinoma Cells." PNAS 86 (1989): 6626-629. Pnas.org. Web. 11 Sept. 2012.

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