



# Nigericin sodium PRODUCT DATA SHEET

issue date 11/17/2017

|                             |   |
|-----------------------------|---|
| <b>Product Name:</b>        | Nigericin sodium  |
| <b>Product Number:</b>      | N015  |
| <b>CAS Number:</b>          | 28643-80-3  |
| <b>Molecular Formula:</b>   | $C_{40}H_{67}NaO_{11}$  |
| <b>Molecular Weight:</b>    | 746.94  |
| <b>Form:</b>                | Powder  |
| <b>Appearance:</b>          | White to off-white powder   |
| <b>Storage Conditions:</b>  | 2-8°C   |
| <b>Description:</b>         | <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> |
| <b>Mechanism of Action:</b> | Nigericin sodium acts as an antiporter of H and K ions by exchanging K for H. This ionic imbalance rapidly decreases the intracellular pH.  |
| <b>Cancer Applications</b>  | One study showed the increased intracellular acidity halted DNA synthesis in Ehrlich ascites carcinoma lending support to use as a chemotherapeutic agent.  |
| <b>References:</b>          | Margolis, Leonid B., et al. "K <sup>+</sup> /H <sup>+</sup> -antiporter Nigericin Arrests DNA Synthesis in Ehrlich Ascites Carcinoma Cells." PNAS 86 (1989): 6626-629. Pnas.org. Web. 11 Sept. 2012.  |

If you need any help, contact us: [info@toku-e.com](mailto:info@toku-e.com). Find more information on: [www.toku-e.com/](http://www.toku-e.com/)