



## MATERIAL SAFETY DATA SHEET


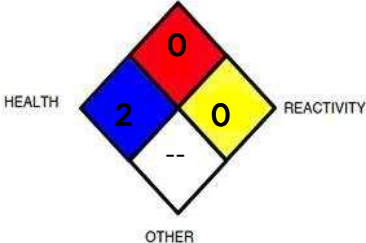
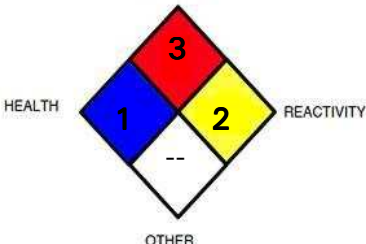
### Section 1: Product & Company Identification

<b>Product Name:</b>	Nigericin
<b>Product #:</b>	N-1103
<b>Synonyms:</b>	Helexin C, Polyetherin A, Azalomycin M, Antibiotic X464, Antibiotic K178
<b>Supplier:</b>	A.G. Scientific, Inc. 6450 Lusk Blvd E102 San Diego CA 92121 Tele# + 858-452-9925 Fax# + 858-452-9926
<b>Emergency Tele#:</b>	Chemtrec, Tele# in USA 1-800-424-9300, International 1-703-527-3887

### Section 2: Composition / Information on Ingredients

Component	CAS#	EC #	%	Classification	R Phrases
	28643-80-3				R25-36/37/38

### Section 3: Hazards Identification

<b>Symbols</b>	
<b>HMIS Classification</b>	<p>FLAMMABILITY</p>  <p>HEALTH      REACTIVITY</p> <p>OTHER</p>
<b>NFPA Classification</b>	<p>FLAMMABILITY</p>  <p>HEALTH      REACTIVITY</p> <p>OTHER</p>

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## Section 4: First Aid Measures

<b>General Overview:</b>	Avoid contact, wear suitable protective clothing, gloves and eye/face protection.
<b>Inhalation:</b>	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration, seek medical attention. May be harmful if inhaled. Causes respiratory tract irritation.
<b>Skin:</b>	Wash immediately with water for 15 minutes. Remove contaminated clothing. Wash contaminated clothing before reuse. Seek medical attention if symptoms appear. May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes:</b>	In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes. Remove contacts. Assure adequate flushing of the eyes by separating the eyelids with fingers. Causes eye irritation.
<b>Ingestion:</b>	If swallowed, wash out mouth with water provided person is conscious. DO NOT induce vomiting. Seek medical attention if symptoms appear. Loosen tight clothing like collar, tie, belt or waistband. Toxic if swallowed.
	<i>See section 11 for more detailed information on health effects &amp; symptoms</i>

## SECTION 5: Fire Fighting Measures

<b>Flammability of the product:</b>	Not available.
<b>Extinguishing Media:</b>	Dry Chemical Powder for SMALL FIRES and carbon dioxide or water spray, fog or foam for LARGE FIRES. Do not use water jet.
<b>Hazardous thermal (de)composition products:</b>	Carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ).
<b>Special Fire Fighting Procedures:</b>	Wear self-contained breathing apparatus (SCBA) and protective clothing to prevent contact with skin and eyes. Be sure to use an approved/certified respirator or equivalent.
<b>Flash Point:</b>	N/A

## Section 6: Accidental Release Measures

<b>Personal Precautions:</b>	Use Personal Protection Equipment. Splash goggles. Full suit. Boots. Gloves. Avoid dust formation.
<b>Environmental Precautions:</b>	Do not let product enter drains.
<b>Methods for Clean-up:</b>	Sweep up & shovel into suitable disposal container. Ventilate area and wash spill site after material pickup is complete.

## SECTION 7: Handling & Storage

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<b>Storage:</b>	-20°C. Keep container tightly closed and in a well ventilated area. Do not store above -20°C.
<b>Handling:</b>	Use only in area provided with appropriate exhaust ventilation. Keep away from heat and source of ignition. Empty containers pose a fire risk, evaporate residue under fume hood. Ground all equipment containing material. Do not breathe dust.

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <p>Wear appropriate government (NIOSH/MSHA) approved respirator. Do not breathe vapor.</p>
<b>Skin and Body:</b>	  <p>Chemical-resistant gloves and lab coat/other protective clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.</p>
<b>Eyes:</b>	 <p>Safety goggles.</p>
<b>Ventilation/Engineering Measures:</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
<b>Hygiene:</b>	Wash hands after handling compound and before eating, smoking, using lavatory and at the end of the day.
<b>Other:</b>	Contains no substances with occupational exposure limit values.

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	Solid
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<b>Color:</b>	White
<b>Formula:</b>	C <sub>40</sub> H <sub>67</sub> O <sub>11</sub> Na
<b>Molecular Wt.</b>	747 g/mole
<b>Melting Pt.</b>	147-148°C
<b>Boiling Pt.</b>	N/A
<b>Density:</b>	N/A
<b>Vapor Pressure:</b>	N/A
<b>Evaporation Rate:</b>	N/A
<b>Vapor Density:</b>	N/A
<b>Water Solubility:</b>	N/A
<b>Flash Point:</b>	N/A
<b>Autoignition Temp:</b>	N/A

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	Stable
<b>Hazardous decomposition products:</b>	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides
<b>Materials to Avoid:</b>	Strong acids and strong bases.
<b>Conditions to avoid:</b>	Excess heat, strong oxidizers.

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	QT6825000
<b>ACUTE Toxicity:</b>	Toxic if swallowed, irritating to the eyes, respiratory system and skin. LD <sub>50</sub> : 48 mg/kg mouse, intraperitoneal
<b>Chronic Exposure:</b> <b>Carcinogen:</b> <b>Mutagen:</b> <b>Teratogen:</b> <b>Reproductive:</b>	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels EPA: No classification on carcinogenic data is available from EPA.  <b>Reproductive toxicity</b> Reproductive toxicity - mouse - Intraperitoneal Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Developmental Toxicity - mouse - Intraperitoneal Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Developmental Toxicity - mouse - Intraperitoneal Effects on Embryo or Fetus: Fetal death.

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	<p>Developmental Toxicity - mouse - Intraperitoneal                  Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system.                  Specific target organ toxicity - single exposure (GHS): Inhalation - May cause respiratory irritation.                  Specific target organ toxicity - repeated exposure (GHS): no data available                  Aspiration hazard: no data available  <b>Potential health effects</b>                  Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.                  Ingestion: Toxic if swallowed.                  Skin: May be harmful if absorbed through skin. Causes skin irritation.                  Eyes: Causes eye irritation.                  Signs and Symptoms of Exposure: Necrosis</p>
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## SECTION 12: Ecological Information

<b>Ecotoxicity:</b>	N/A
<b>Mobility:</b>	N/A
<b>Persistence and degradability:</b>	N/A
<b>Bioaccumulative potential:</b>	N/A
<b>Other adverse effects:</b>	N/A
<b>Corrosivity Characteristic:</b>	N/A
<b>General Notes:</b>	Do not allow undiluted product or large quantities of it to reach groundwater , water course or sewer system. Do not allow materials to be released into the environment without proper government permits.

## SECTION 13: Disposal Considerations

<b>Residue Waste or Unused product:</b>	<i>Only professional staff trained in such techniques must undertake waste disposal. Observe all appropriate federal, provincial or state and local regulations.</i>
<b>Contaminated Packaging:</b>	Do not re-use empty containers. Dispose of as unused product.




## SECTION 14: Transportation Information

<b>UN ID#:</b>	UN3462
<b>ADR / RID (LAND):</b>	

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<p><b>Proper shipping name:</b>  <b>Hazard Class:</b>  <b>Packaging Group:</b>  <b>Proper shipping name:</b></p> <p><b>Label:</b></p> <p><b>DOT regulations:</b></p> <p><b>Hazard Class:</b>  <b>Identification number:</b>  <b>Packaging Group:</b>  <b>Proper shipping name:</b></p> <p><b>Label:</b></p>	<p>UN3462</p> <p>6.1          III          TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.          (Nigericin, monosodium salt)</p> <p>6</p>  <p>6.1          UN3462          III          TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.          (Nigericin, monosodium salt)</p> <p>6</p>
<p><b>IMDG/IMO (SEA):</b></p> <p><b>IATA Class:</b>  <b>UN/ID Number:</b>  <b>Label:</b>  <b>Packaging Group:</b>  <b>Proper shipping name:</b></p> <p><b>Marine Pollutant:</b></p>	 <p>6.1          UN3462          6          III          TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.          (Nigericin, monosodium salt)</p> <p>No</p>
<p><b>IATA/DGR (AIR):</b></p> <p><b>IATA Class:</b>  <b>UN/ID Number:</b>  <b>Label:</b>  <b>Packaging Group:</b>  <b>Proper shipping name:</b></p>	 <p>6.1          UN3462          6          III</p>



	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Nigericin, monosodium salt)
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## SECTION 15: Regulatory Information

<b>EU Regulations:</b>	TOXIC. Toxic if swallowed, irritating to the eyes, respiratory system and skin.
<b>SYMBOLS:</b>	 T, Toxic
<b>Risk Phrases:</b>	R 2-36/37/38: Toxic if swallowed, irritating to the eyes, respiratory system and skin.
<b>Safety Phrases:</b>	S26-36/37/39-45: Wear suitable protective clothing, gloves and eye/face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). Etc.
<b>CAS# EC#</b>	CAS# [30827-99-7] N/A
<b>HCS Classification:</b>	N/A
<b>U.S. Federal Regulations:</b>	OSHA: Toxic by ingestion, Irritant TSCA: No products were found. SARA 302/304/311/312 extremely hazardous substances: No products were found SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 Hazards: Acute Health Hazard Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act. Pennsylvania Right To Know Components Nigericin, monosodium salt CAS-No. 28643-80-3 New Jersey Right To Know Components Nigericin, monosodium salt CAS-No. 28643-80-3 California Prop. 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
<b>WHMIS (Canada):</b>	Not controlled under the WHMIS (Canada) No products were found.

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## SECTION 16: Other Information

**LIABILITY STATEMENT:** *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. A.G. Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. A.G. Scientific products are for research purposes only. Not for human use or consumption.*