

## Safety Data Sheet

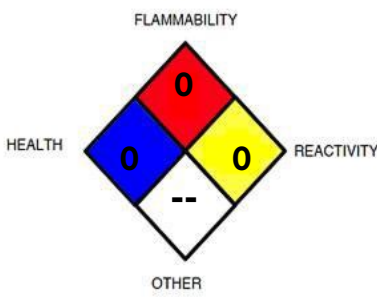
### Section 1: Product & Company Identification

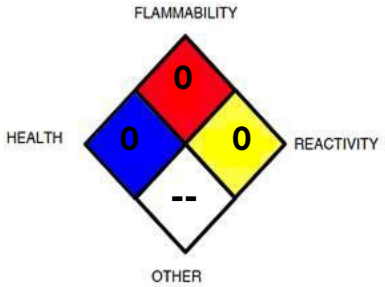
<b>Product Name:</b>	Gramicidin complex
<b>Product #:</b>	G-2523
<b>Synonyms:</b>	-
<b>Supplier:</b>	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
<b>Emergency Tele#:</b>	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

### Section 2: Composition / Information on Ingredients

Component	CAS #	EC #	% Composition
Gramicidin complex	1405-97-6	215-790-4	>95%

### Section 3: Hazards Identification

<b>Symbols</b>	N/A
<b>HMIS Classification</b>	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">HEALTH      REACTIVITY</p> <p style="text-align: center;">OTHER</p>

<b>NFPA Classification</b>	
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## Section 4: First Aid Measures

<b>General Overview:</b>	Non-hazardous
<b>Inhalation:</b>	N/A
<b>Skin:</b>	N/A
<b>Eyes:</b>	N/A
<b>Ingestion:</b>	N/A
See section 11 for more detailed information on health effects & symptoms.	

## SECTION 5: Fire Fighting Measures

<b>Flammability of the product:</b>	Material may be flammable at high temperatures.
<b>Extinguishing Media:</b>	Select firefighting media appropriate to the other materials involved in the fire.
<b>Hazardous thermal (de)composition products:</b>	No data available
<b>Special Fire Fighting Procedures:</b>	It is recommended that fire fighters should wear protective gear and self-contained breathing apparatus to limit personal exposure.
<b>Flash Point:</b>	No data available





## Section 6: Accidental Release Measures

<b>Personal Precautions:</b>	Wear protective clothing, gloves, and safety glasses.
<b>Environmental Precautions:</b>	Non required
<b>Methods for Clean-up:</b>	Pick up mechanically.

## SECTION 7: Handling & Storage

<b>Storage:</b>	Store in tightly closed container away from light. Recommended storage temperature: -20°C
<b>Handling:</b>	See Section 8

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <p>Non required</p>
<b>Skin and Body:</b>	  <p>Latex or nitrile gloves are recommended.</p>
<b>Eyes:</b>	 <p>Safety glasses are recommended.</p>
<b>Ventilation/Engineering Measures:</b>	Ensure adequate ventilation.
<b>Hygiene:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Other:</b>	N/A

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	White to off-white solid
<b>Formula</b>	$C_{99}H_{139}N_{19}O_{18}$ (for Gramicidin A1)
<b>Molecular Wt.</b>	1883.3

<b>Melting Pt.</b>	No data available
<b>Boiling Pt.</b>	No data available
<b>Density:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Solubility:</b>	Ethanol, Methanol, DMF, DMSO
<b>Flash Point:</b>	No data available
<b>Autoignition Temp:</b>	No data available

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Hazardous decomposition products:</b>	No data available
<b>Materials to Avoid:</b>	Strong oxidizing agents
<b>Conditions to avoid:</b>	No data available

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	N/A
<b>ACUTE Toxicity:</b>	LD50 17 µg/kg (mouse, parenteral) LD50 1.5 mg/kg (mouse, IV) LDLo 20 mg/kg (IP, mouse)
<b>CHRONIC Toxicity:</b>	N/A
<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. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

## SECTION 12: Ecological Information

<b>Ecotoxicity:</b>	No data available
<b>Mobility:</b>	No data available

<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available
<b>Other adverse effects:</b>	No data available
<b>Corrosivity Characteristic:</b>	No data available
<b>General Notes:</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### SECTION 13: Disposal Considerations

<b>Residue Waste or Unused product:</b>	Dispose of as chemical waste. Ensure compliance with all relevant local, state, and national laws and regulations.
<b>Contaminated Packaging:</b>	Dispose of as unused product.

### SECTION 14: Transportation Information

<b>UN ID#:</b>	N/A
<b>ADR / RID (LAND):</b>	Not regulated
<b>DOT regulations:</b>	Not regulated
<b>IMDG/IMO (SEA):</b>	Not regulated
<b>IATA/DGR (AIR):</b>	Not regulated
<b>Special Provisions:</b>	N/A

### SECTION 15: Regulatory Information

<b>Health Phrases:</b>	Not hazardous
<b>Risk Phrases:</b>	N/A
<b>Safety Phrases:</b>	N/A
<b>EU Regulations:</b>	N/A
<b>US Regulations:</b>	TSCA: Not listed California Proposition 65: No products were found
<b>U.S. Federal Regulations:</b>	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found. 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.

	<p>Clean Air Act (CAA) 112 regulated flammable substances: No products were found.</p> <p>Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</p> <p>OSHA: No products were found.</p>
<b>WHMIS (Canada):</b>	N/A

## **SECTION 16: Other Information**

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