

Safety Data Sheet

Section 1: Product & Company Identification

Product Name:	Novobiocin
Product #:	N-2613
Synonyms:	Albamycin; Vulcamycin; PA 93; WS 6629; Griseoflavin
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

Section 2: Composition / Information on Ingredients

Component	CAS #	EC #	% Composition
Novobiocin	308-81-1	206-146-3	

Section 3: Hazards Identification

Symbols	
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HMIS Rating

Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard

NFPA Rating

Health Hazard	Fire Hazard	Reactivity Hazard

Section 4: First Aid Measures

General Overview:	Seek medical attention if skin irritation or rash develops. Seek medical attention or contact a poison center if you feel unwell following exposure. Show this safety data sheet to doctor in attendance.
Inhalation:	If inhaled, move person to fresh air.

Skin:	Wash contaminated clothing before reuse. Wash exposed area with plenty of soap and water.
Eyes:	As a precaution, rinse eyes with water for 5 minutes.
Ingestion:	Rinse mouth with water.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	Material may be flammable at high temperatures.
Extinguishing Media:	No data available
Hazardous thermal (de)composition products:	No data available
Special Fire Fighting Procedures:	It is recommended that fire fighters should wear protective gear and self-contained breathing apparatus to limit general exposure.
Flash Point:	No data available


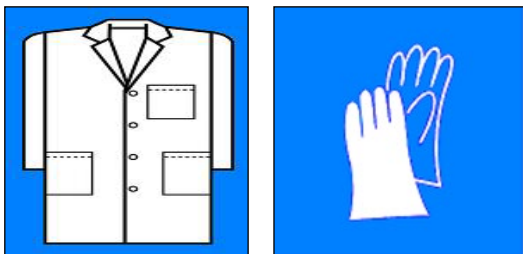

Section 6: Accidental Release Measures

Personal Precautions:	Wear protective clothing, gloves, full face shield, and dust mask.
Environmental Precautions:	Prevent further leakage or spillage only if safe to do so.
Methods for Clean-up:	Wear appropriate personal protective equipment (PPE) gear as outlined under Section 8. Clean up spill and place all contaminated materials in sealed container and hold for disposal. Avoid raising dust. Ensure adequate ventilation and wash spill site with water until all material has been removed.

SECTION 7: Handling & Storage

Storage:	Store container away from light. Recommended storage temperature: -20°C
Handling:	The product is intended for in vitro laboratory research only.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:		<p>Use type P2 (EN 143(EU)) or type N95 (NIOSH(USA)) dust masks to avoid breathing in dust.</p>
Skin and Body:		<p>Latex or nitrile gloves.</p>
Eyes:		<p>Full face shield.</p>
Ventilation/Engineering Measures:	<p>Ensure adequate ventilation.</p>	
Hygiene:	<p>The usual precautionary measures for handling chemicals should be followed.</p>	
Other:	<p>N/A</p>	

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Pale yellow solid
Formula	$C_{31}H_{36}N_2O_{11}$
Molecular Wt.	612.6
Melting Pt.	No data available
Boiling Pt.	No data available
Density:	No data available
Vapor Pressure:	No data available
Evaporation Rate:	No data available

Vapor Density:	No data available
Solubility:	Ethanol, Methanol, DMF, DMSO. Limited water solubility.
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	No data available
Materials to Avoid:	No data available
Conditions to avoid:	No data available

SECTION 11: Toxicological Information

RTECS#:	N/A
ACUTE Toxicity:	Oral LD50: 1500 mg/kg (mouse) Other toxicity: LD50 262 mg/kg (mouse, IP); LD50 407 mg/kg (mouse, IV)
CHRONIC Toxicity:	Carcinogenicity: Suspected human carcinogen
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	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

Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available

Other adverse effects:	No data available
Corrosivity Characteristic:	No data available
General Notes:	No data available

SECTION 13: Disposal Considerations

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

SECTION 14: Transportation Information

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

SECTION 15: Regulatory Information

Health Phrases:	Warning! H302 Harmful if swallowed (Category 4). H317 May cause an allergic skin reaction (Category 1).
Risk Phrases:	P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P264 Wash exposed skin, hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection
Safety Phrases:	P301 + P317 IF SWALLOWED: Get medical help. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P321 Specific treatment (see information in this safety data sheet). P330 Rinse mouth. P333 + P317 If skin irritation or rash occurs: Get medical help. P362 + P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container in accordance with local, state or national regulations.
EU Regulations:	N/A
US Regulations:	TSCA: No products were found California Proposition 65: Not listed
U.S. Federal Regulations:	SARA 302/304 emergency planning and notification: No products were found.

	<p>SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found.</p> <p>SARA 313 toxic chemicals notification and release reporting: No products were found.</p> <p>Clean Water Act (CWA) 307: No products were found.</p> <p>Clean Water Act (CWA) 311: No products were found.</p> <p>Clean Air Act (CAA) 112 accidental release prevention: No products were found.</p> <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: Acute toxicity - oral (Cat. 4); Sensitization - skin (Cat. 1)</p>
WHMIS (Canada):	N/A

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. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*