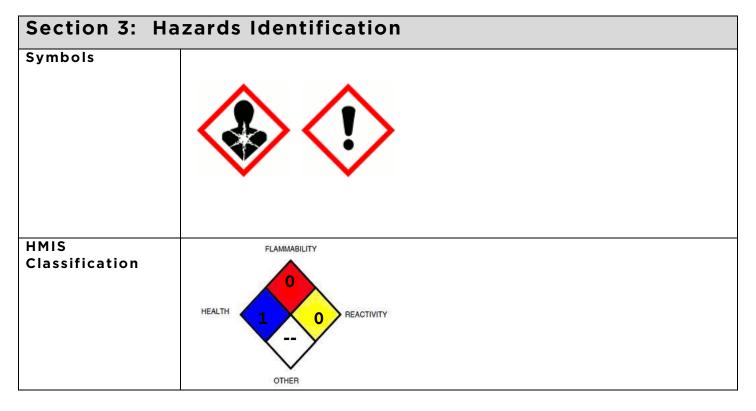


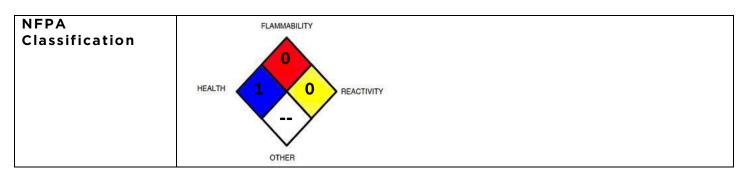
Safety Data Sheet

Section 1: Product & Company Identification		
Product Name:	Phleomycin, Powder	
Product #:	P-2853	
Synonyms:	Phleomycin complex; NSC 61586	
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
Phleomycin	11006-33-0	-	100







Section 4: First Aid Measures		
General Overview:	Consult a doctor and show this safety data sheet.	
Inhalation:	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.	
Skin:	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.	
Eyes:	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.	
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.	
	See section 11 for more detailed information on health effects & symptoms.	

SECTION 5:	Fire Fighting Measures
Flammability of the product:	No data available
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous thermal (de)composition products:	Carbon monoxide (CO) Carbon dioxide (CO2) Nitrogen oxides (NOx) Sulfur oxides Hydrogen chloride gas.
Special Fire Fighting Procedures:	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
Flash Point:	No data available

Section 6:	Accidental Release Measures
Personal	Do not take action without suitable protective clothing - see section 8 of SDS.
Precautions:	Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid
	breathing vapors, mist, dust, or gas.



Environmental	Do not let product enter drains.
Precautions:	
Methods for	Cover spillage with suitable absorbent material. Using non-spark tools, sweep
Clean-up:	up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

SECTION 7:	Handling & Storage
Storage:	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Recommended storage temperature: 2 - 8 °C.
Handling:	Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin, and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:



Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Skin and Body:





Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.



	Wear appropriate protective clothing. Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Eyes:	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Ventilation/Engineering Measures:	Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Do not let product enter drains.
Hygiene:	Handle in accordance with good industrial hygiene and safety practice.
Other:	Contains no substances with occupational exposure limit values.

SECTION 9: Physical and Chemical Properties		
Appearance & Odor:	Light blue powder	
Formula	C ₅₅ H ₈₅ O ₂₁ N ₂₀ S ₂ Cu • HCl	
Molecular Wt.	1,525	
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:	Soluble in water	
Flash Point:	No data available	
Autoignition	No data available	
Temp:		

SECTION 10: St	ability and Reactivity
Stability:	Stable under recommended storage conditions.



Hazardous decomposition products:	No data available
Materials to Avoid:	Strong oxidizing agents, Strong acids
Conditions to avoid:	N/A

SECTION 11: Toxicological Information		
RTECS#:	N/A	
ACUTE Toxicity:	LD50 Oral = 649 mg/kg (Rat) Remarks: Behavioral: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Dyspnea. Altered sleep time (including change in righting reflex).	
CHRONIC Toxicity:	Germ cell mutagenicity: Laboratory experiments have shown mutagenic effects.	
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:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.	



SECTION 13: Disposal Considerations		
Residue Waste or Unused product:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.	
Contaminated Packaging:	Dispose of container and unused contents in accordance with federal, state, and local requirements.	

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:	H302 Harmful if swallowed	
	H341 Suspected of causing genetic defects	
Risk Phrases:	P201 Obtain special instructions before use	
	P202 Do not handle until all safety precautions have been read and	
	understood.	
	P264 Wash skin thoroughly after handling	
	P270 Do not eat, drink or smoke when using this product.	
	P280 Wear protective gloves/ protective clothing/ eye protection/ face	
	protection.	
	P301 + P312 IF SWALLOWED: Call a POISON CENTER or	
	doctor/physician if you feel unwell.	
	P308 + P313 IF exposed or concerned: Get medical advice/ attention.	
	P330 Rinse mouth.	
	P405 Store locked up.	
	P501 Dispose of contents/ container to an approved waste disposal plant.	
Safety Phrases:	N/A	
EU Regulations:	N/A	
US Regulations:	TSCA: Not listed	
	California Proposition 65: Not listed	
	New Jersey State Right to Know: Phleomycin (CAS 11006-33-0)	
	Pennsylvania State Right to Know: Phleomycin (CAS 11006-33-0)	
U.S. Federal	SARA 302/304/311/312 extremely hazardous substances: No products	
Regulations:	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 MSDS distribution-chemical inventory-hazard identification: Phleomycin (CAS 11006-33-0), Acute Health Hazard, Chronic Health Hazard 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.
	OSHA: No products were found.
WHMIS (Canada):	This product has been classified in accordance with the hazard criteria of
	the Controlled Products Regulations (CPR) and the SDS contains all the
	information required by the CPR.

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.