

Safety Data Sheet


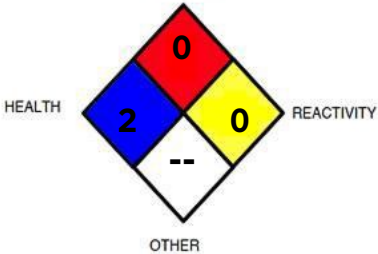
Section 1: Product & Company Identification

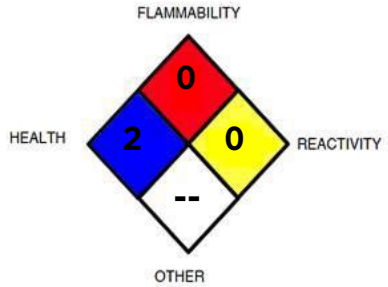
Product Name:	Penicillin-Streptomycin Solution
Product #:	P-1683
Synonyms:	-
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

Section 2: Composition / Information on Ingredients

Component	CAS#	EC #	Concentration
Streptomycin sulfate	3810-74-0	223-286-0	<2%
Penicillin G potassium	113-98-4	204-038-0	<1%

Section 3: Hazards Identification

Symbols	
HMIS Classification	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">OTHER</p>

NFPA Classification	
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Section 4: First Aid Measures

General Overview:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin:	Wash off with soap and plenty of water. Consult a physician.
Eyes:	Flush eyes with water as a precaution.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	Not flammable or combustible.
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous thermal (de)composition products:	Carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.
Flash Point:	No data available

Section 6: Accidental Release Measures

Personal Precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods for Clean-up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: Handling & Storage

Storage:	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20 °C.
Handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:



Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin and Body:



Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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:	 <p>Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
Ventilation/Engineering Measures:	Ensure adequate ventilation.
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

Property	Streptomycin sulfate	Penicillin G potassium
Appearance & Odor:	White to off-white powder	White to off-white powder
Formula	$(C_{21}H_{39}N_7O_{12})_2 \cdot 3H_2SO_4$	$C_{16}H_{17}KN_2O_4S$
Molecular Wt.	1457.40	372.49
Melting Pt.	No data available	No data available
Boiling Pt.	No data available	No data available
Density:	No data available	No data available
Vapor Pressure:	No data available	No data available
Evaporation Rate:	No data available	No data available
Vapor Density:	No data available	No data available
Solubility:	Water 50 mg/mL	Water 100 mg/mL
Flash Point:	No data available	No data available
Autoignition Temp:	No data available	No data available

SECTION 10: Stability and Reactivity

Property	Streptomycin sulfate	Penicillin G potassium
Stability:	Stable under recommended storage conditions	
Hazardous decomposition products:	Carbon oxides, nitrogen oxides, sulfur oxides	Carbon oxides, nitrogen oxides, sulfur oxides, potassium oxides

Materials to Avoid:	Strong oxidizing agents	Acids, heavy metal salts, oxidizing agents
Conditions to avoid:	No data available	No data available

SECTION 11: Toxicological Information

RTECS#:	XH9700000	
ACUTE Toxicity:	LD50 Oral = 8,900 mg/kg (Rat)	
CHRONIC Toxicity:	Teratogenicity: Suspected human reproductive toxicant	
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>EPA: No classification on carcinogenic data is available from EPA</p>	

SECTION 12: Ecological Information

Ecotoxicity:	<p>Streptomycin sulfate: Toxicity to Fish, LC50 180 mg/L (Rainbow trout, <i>Oncorhynchus mykiss</i>) 96 h Toxicity to Daphnia and other aquatic invertebrates, EC50 650 mg/L (Water flea, <i>Daphnia magna</i>) 48 h</p>	
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:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
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:	H317 May cause an allergic skin reaction. H361 Suspected of damaging fertility or the unborn child
Risk Phrases:	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Safety Phrases:	P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.
EU Regulations:	Streptomycin sulfate: R22, R63, S36/37 Penicillin G potassium: R42/43, S36/37
US Regulations:	TSCA: Not listed California Proposition 65: WARNING! This product can expose you to chemicals including Streptomycin Sulfate, which is known to the State of California to cause developmental toxicity or other reproductive harm. For more information go to www.P65Warnings.ca.gov . New Jersey State Right to Know: Listed

	Pennsylvania State Right to Know: Listed
U.S. Federal Regulations:	<p>SARA 302/304/311/312 extremely hazardous substances: No products were found</p> <p>SARA 302/304 emergency planning and notification: No products were found.</p> <p>SARA 302/304/311/312 hazardous chemicals: No products were found.</p> <p>SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Yes - Acute Health Hazard, Chronic Health Hazard</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: Target organ effect, Harmful by Ingestion, Teratogen</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.*