

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Agri-Mycin® 17 Agricultural Streptomycin
EPA Reg. No.: 55146-96
Product Type: Agricultural Antibiotic
Company Name: Nufarm Americas Inc., AGT Division
11901 S. Austin Avenue
Alsip, IL 60803
1-800-345-3330
Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION**PHYSICAL HAZARDS:**

None

HEALTH HAZARDS:

Eye Irritation	Category 2B
Reproductive Toxicity	Category 2
Carcinogen	Category 1A
Specific Target Organ Toxicity – Repeat Exposure	Category 1

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute	Category 1
Hazardous to aquatic environment, chronic	Category 1

SIGNAL WORD:

WARNING

HAZARD STATEMENTS:

Causes eye irritation. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated inhalation. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Wash thoroughly after handling.

Avoid release to the environment.

IF exposed or concerned: Get medical advice.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

Collect spillage.

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Store locked up.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Streptomycin Sulfate	3810-74-0	17.9 – 23.1
Crystalline silica (quartz)	14808-60-7	33 – 42
Pyrophyllite	12269-78-2	<28
Mica	12001-26-2	12 – 17.5
Kaolin	1332-58-7	0.6 – 3.5
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Streptomycin Sulfate; O-2-deoxy-2-methylamino-alpha-L-glucopyranosyl-(1->2)-O-5-deoxy-3-C-formyl-alpha-L-lyxofuranosyl-(1->4)-N3, N3-diamidino-D-streptamine-sulfate (2:3)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye. Get medical attention if irritation occurs.

If Swallowed: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. If symptoms develop, get medical advice.

If Inhaled: Move person to fresh air. If breathing is difficult, administer oxygen. If symptoms develop, get medical advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin with plenty of water. If irritation occurs, get medical advice.

Most important symptoms/effects, acute and delayed: Causes eye irritation. May cause cancer and lung damage by inhalation. Suspected of damaging the unborn child.

Indication of immediate medical attention and special treatment needed, if necessary: Immediate medical attention should not be required.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, foam or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): Irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING:

Avoid contact with eyes, skin, or clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE:

Keep tightly closed. Store at a cool temperature when possible, and with minimum exposure to the atmosphere. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves made of waterproof material. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Dust/mist filtering respirator (NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N, R, P or HE filter.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Streptomycin Sulfate	NE	NE	NE	NE	
Crystalline silica (quartz)	50 (R) %SiO ₂ +2	NE	25 (R)	NE	µg/m ³
Pyrophyllite*	5(R) 15(T) 30 mppcf	NE	3(R) 10(I)	NE	mg/m ³
Mica	20 mppcf**	NE	3(R)	NE	mg/m ³
Kaolin	5(R) 15 (T)	NE	2 (R)	NE	mg/m ³
Other Ingredients	NE	NE	NE	NE	

NE = Not Established R = Respirable Fraction T = Total Dust I = Inhalable particles

** Regulated as PNOR (Particulates Not Otherwise Regulated)

**<1% crystalline silica

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Tan colored powder
Odor:	Fermentation-like odor
Odor threshold:	No data available
pH:	4.67 (1% w/w dispersion in DIW)
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	Not applicable due to product form
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available

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Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.00 g/ml
Solubility(ies):	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	Not applicable due to product form

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Not known.

Hazardous Decomposition Products: Under fire conditions may produce oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact

Eye Contact: Causes eye irritation. May cause pain, redness and tearing.

Skin Contact: Slightly toxic and slightly irritating based on toxicity studies.

Ingestion: Slightly toxic based on toxicity studies. May cause digestive tract irritation.

Inhalation: Low inhalation toxicity. Dust may cause irritation.

Delayed, immediate and chronic effects of exposure: None expected.

Toxicological Data:

Data from laboratory studies on this product are summarized below:

Oral: Rat LD₅₀: >5,000 mg/kg

Dermal: Rabbit LD₅₀: >2,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: >2.72 mg/l (no mortalities from exposure to this concentration).

Eye Irritation: Rabbit: Moderate irritating

Skin Irritation: Rabbit: Slightly irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Other Acute Effects: Streptomycin may cause severe allergic reactions (anaphylactic) in sensitive individuals.

Subchronic (Target Organ) Effects: Clinical studies reported kidney damage and ear damage manifested by nausea, vomiting, dizziness, numbness/tingling of face. Inhalation of excessive amounts of kaolin dust may produce coughing, sneezing and nasal irritation. Chronic exposure to mica may cause persistent cough, possible difficulty in breathing.

Carcinogenicity / Chronic Health Effects: Prolonged overexposure to streptomycin may cause effects to kidneys, ears and skin. Streptomycin did not cause cancer in laboratory animals. Long-term over-exposure to kaolin dust may affect the lungs. The diluent as a whole is not listed as a carcinogen. However, it does contain crystalline silica (e.g. quartz), a naturally occurring component. Inhalation of crystalline silica may cause pulmonary fibrosis (silicosis). Crystalline silica has been classified by IARC as carcinogenic to humans (Group 1), by the U.S. National Toxicology Program as a known human carcinogen and by ACGIH as a suspected human carcinogen (A2).

Reproductive Toxicity: Streptomycin may cause auditory nerve damage in the developing fetus.

Developmental Toxicity: None observed.

Genotoxicity: None observed.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Streptomycin Sulfate	No	No	No	No
Crystalline Silica, Quartz	A2	1	Known	No

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Pyrophyllite	No	No	No	No
Mica	No	No	No	No
Kaolin	A4	No	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

Data on Streptomycin:

96-hour LC ₅₀ Bluegill:	> 180 ppm	Bobwhite Quail Acute Oral LC ₅₀ :	>2,000 mg/kg
96-hour LC ₅₀ Rainbow Trout:	>180 ppm	Bobwhite Quail 8-day Dietary LC ₅₀ :	>5,620 ppm
96-hour EC ₅₀ FW Alga:	6.9 ppb	Mallard Duck 8-day Dietary LC ₅₀ :	4,640 ppm

Environmental Fate:

Streptomycin degradation in soil and water is mediated by bacterial decomposition with degradation typically occurring in 2-3 weeks. Streptomycin does not leach but binds tightly to soil and particulates. The major degradate in water and soil is methylamine.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method:**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling and Disposal:

Nonrefillable bags of granular or dry formulation: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinance. If burned, stay out of smoke.

Nonrefillable Containers 5 gallons or less: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Plastic containers are also disposable by incineration. Do not burn unless allowed by state and local ordinance. If burned, stay out of smoke.

Nonrefillable containers larger than 5 Gallons: Nonrefillable container. Do not reuse or refill this container.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration. Do not burn unless allowed by state and local ordinance. If burned, stay out of smoke.

14. TRANSPORTATION INFORMATION**DOT:**

Non Regulated

IMDG:

UN3077, Environmentally Hazardous Substance, Solid, n.o.s. (Streptomycin Sulfate), 9, III, Marine Pollutant

IATA:

UN3077, Environmentally Hazardous Substance, Solid, n.o.s. (Streptomycin Sulfate), 9, III

15. REGULATORY INFORMATION**EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of

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non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. Harmful if absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not breathe dust or spray mist. Avoid contact with eyes, skin, or clothing.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370.66):

Acute Health, Chronic Health

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65:  **ATTENTION.** This product can expose you to chemicals including streptomycin sulfate which is known to the State of California to cause birth defects or other reproductive harm; and crystalline silica (quartz) which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

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