



SAFETY DATA SHEET

A18246/03/AUS

APRAPHARM SOLUBLE POWDER

SECTION 1 – IDENTIFICATION, CONTACTS

Bayer Australia Ltd 875 Pacific Highway Pymble NSW 2073	Emergency Telephone Number 1800 033 111 24 hour Emergency Service Australia Wide, Toll Free Contact Point (for non-emergency calls) Animal Health Division (02) 9391 6000
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Full Product Name	APRAPHARM SOLUBLE POWDER
Other Names	N/A
Product Use	FOR ANIMAL TREATMENT ONLY For the prophylaxis or treatment of bacterial enteritis caused by susceptible strains of <i>Escherichia coli</i> and other organisms susceptible to Apramycin.
Creation Date	21 st March 2011
Revision Date	20 August 2013

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification	CLASSIFIED AS A HAZARDOUS SUBSTANCE CLASSIFIED AS NON DANGEROUS GOODS according to criteria of NOHSC Australia and ADG Code. Poison Schedule S4
Risk Phrases	R36/38 Irritating to eyes and skin. R61 May cause harm to the unborn child.
Safety Phrases	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of water. S53 Avoid exposure – obtain special instructions before use.

SECTION 3 – COMPOSITION

Ingredients	CAS No	Proportion
Apramycin Sulphate	65710-07-8	59.5% w/w

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also present.

SECTION 4 – FIRST AID MEASURES

Label Regulated First Aid Statement	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.
Scheduled Poisons	Poison schedule S4. Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons. Phone 131126.
Inhalation	Remove from further exposure. If unconsciousness occurs, seek immediate medical attention. If breathing stops, use mouth-to-mouth resuscitation and seek immediate medical advice.
Skin contact	Remove contaminated clothing and clean before re-use. Wash all exposed areas of skin with plenty of soap and water. Seek medical attention if irritation develops.
Eye contact	Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Seek medical advice.
Ingestion	DO NOT induce vomiting. Call a doctor or the Poisons Information Centre, phone 13 11 26 (Australia wide). If available, administer activated charcoal (6-8 heaped teaspoons) with two or three glasses of water. Immediately transport to a hospital and see a doctor.
Advice to doctor	Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Flammability	Non-flammable. As a finely divided material, may form dust mixtures in air which could explode if subjected to an ignition source.
Extinguishing Media	Use foam, dry chemical powder, carbon dioxide or water spray fire extinguishers. Use water sprays to cool fire exposed surfaces and any adjacent storage vessels. Equipment should be thoroughly decontaminated after use.
Fire and Explosion Hazards	Keep well away from heat and keep container closed when not in use.
Hazardous Combustion Products	Non combustible. May emit toxic fumes when exposed to heat or fire.
Fire Fighting	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Accidental Release	<p><u>Emergency Procedures:</u> None applicable</p> <p><u>Method of Containment and Clean up Procedures</u></p> <p>Contain dry material by sweeping up or vacuuming. Vacuuming may disperse dust if appropriate dust collection filter is not part of the vacuum. Be aware of potential for dust explosion when using electrical equipment. Prevent spilled material from flowing onto adjacent land or into streams, ponds or lakes. Wear protective equipment, including eye protection, to avoid exposure.</p>
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SECTION 7 – HANDLING AND STORAGE

Safe Handling	Limit all unnecessary personal contact. Use only as directed. Harmful if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Wear rubber gloves when opening the container and using the product. Wash hands after use.
Storage	Store below 30°C (Room temperature) in a dry place. Store only in original containers, properly labelled and kept closed. Make sure all containers are free from leaks or any physical damage. Keep out of reach of children.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	Exposure limits have not been established by NOHSC for this formulation.
Ventilation	No special ventilation is recommended under normal conditions of use.
Eye Protection	Eye protection such as protective glasses or goggles, are recommended when this product is being used.
Skin Protection	Wear chemical resistant gloves when skin contact is likely. Wash hands or other exposed areas after handling and use.
Respirator	Respiratory protection is recommended when this product is being used.
Thermal hazards	Wear self-contained breathing apparatus and protective clothing.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Physical State	Powder
Colour	Off white to yellow free flowing powder.
Odour	Practically odourless.
Solubility in water	Soluble.

SECTION 10 – STABILITY & REACTIVITY

Chemical Stability	Stable under normal ambient and anticipated storage conditions of temperature and pressure
Conditions to Avoid	None known.
Incompatible Materials	May react with strong oxidizing agents, (e.g. peroxides, permanganates, nitric acid, etc).
Hazardous Decomposition	Emits toxic fumes under fire conditions.
Hazardous Reactions	Not applicable.

SECTION 11 – TOXICOLOGICAL INFORMATION

Reproductive Effects	Animal toxicity: Apramycin sulfate - Decreased offspring survival and decreased foetal weight at doses toxic to the mother.
Mutagenicity	Animal toxicity: Apramycin sulfate - Not mutagenic in bacterial or mammalian cells.
Carcinogenic Effects	No information available.
Health Hazard Information	<p><u>ACUTE</u></p> <p>Skin:</p> <p>Skin irritation has been reported with occupational exposure to Apramycin.</p> <p>Animal Toxicity Data Single Exposure</p> <p>Toxicity data for the active ingredient, Apramycin Sulfate, are reported below:</p> <p>Oral: Rat, 4160 mg/kg, no deaths.</p> <p>Skin: Rabbit, 1040 mg/kg, no deaths or toxicity. Slight irritant</p> <p>Inhalation: Rat, 211 mg/m³ for 1 hour, no deaths or toxicity.</p> <p>Eye contact: Rabbit, slight irritant.</p> <p><u>CHRONIC</u></p> <p>Unknown in humans for this formulation.</p>

SECTION 12 – ECOLOGICAL INFORMATION**Ecotoxicity**

Apramycin is practically non-toxic to fish, earthworms, daphnids, and birds. Not toxic to soil microflora at highest concentration tested. Moderately to highly toxic to nitrogen-fixing microorganisms. Highly toxic to green algae. Low potential to bioconcentrate in aquatic organisms. Persistent in the soil environment. Extensive soil adsorption with minimal soil desorption.

Environmental data for Apramycin, the active ingredient, are presented below:

Rainbow trout 96-hour median lethal concentration: > 300ppm

Bluegill 96-hour median lethal concentration: > 300ppm

Daphnia magna 48-hour median effective concentration: 101.6ppm

Bobwhite 14-day oral median lethal dose: 1669mg/kg

Bobwhite 5-day dietary median lethal concentration: > 5000ppm

Mallard 5-day dietary median lethal concentration: > 5000ppm

Earthworm 14-day median lethal concentration: > 100ppm

Microorganisms:

N-fixing bacteria (*Azotobacter chroococcum*) inhibition at 0.1ppm

N-fixing algae (*Anabaena flos aquae*) inhibition at 0.1ppm

N-fixing bacteria (*R. leguminosarum*) inhibition at 0.1ppm

N-fixing bacteria (*R. japonicum*) inhibition between 1 and 10ppm

Green algae (*S. capricornutum*) 72-hour median effective concentration average specific growth rate: 818 micrograms/L

Soil microflora respiration and nitrification inhibition: >20ppm

Persistence

Environmental Fate: Apramycin

Dissociation constant (pKa): 5.4 to 8.5

Solubility (g/L): > 300

Log octanol-water partition coefficient (Kow): -3.3

Field soil decline: \leq 25% after 2 years

Bioconcentration factor: 0.022

Greenhouse soil decline in manure: < 25% after 1 year

Greenhouse soil decline: approximately 33% after 1 year

Soil adsorption coefficient (Koc) range in 3 soils: 341,900 - 659,609

Soil desorption (Koc) range in 3 soils: 763,633 - 1,887,467

SECTION 13 – DISPOSAL INFORMATION**Spills and disposal**

Clean up spills immediately. Use dry clean up procedures and avoid generating dust. Sweep or vacuum up and place spilled material in clean, dry, sealable, labelled container for disposal of waste in compliance with local waste disposal regulations. Ventilate area and wash spill site after material is collected. Do not allow product to contaminate waterways or sewage disposal areas. Dispose of empty container by wrapping with paper and putting in garbage.

SECTION 14 – TRANSPORT INFORMATION

UN No	None allocated
UN Proper Shipping Name	None allocated
Class & Subsidiary Risk	None allocated.
Packaging Group	None allocated
Hazchem Code	None allocated

SECTION 15 – REGULATORY INFORMATION

Poisons Schedule	Schedule S4
APVMA Registration	The product is registered by the APVMA.
Registration Number	58104
Labelling	All necessary directions, precautions and warnings for normal use of the product are included on the product label.

SECTION 16 – OTHER INFORMATION

Summary of Changes from Last Edition	Routine Review and Update
Acronyms	<p>ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail</p> <p>APVMA Australian Pesticides and Veterinary Medicines Authority</p> <p>CAS Chemical Abstracts Service Registry Number</p> <p>NOHSC National Occupational Health & Safety Commission</p> <p>UN Number United Nations number</p>
Disclaimer	<p>This Safety Data Sheet has been developed according to the NOHSC National Code of Practice for the Preparation of MSDS [NOHSC:2011(2003)]. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this Safety Data Sheet is to describe product in terms of their safety requirements. Bayer Australia Limited makes no representation of merchantability, fitness for a particular purpose or application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The 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 of the product. The physical data shown herein are typical values based on material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof. Due care should be taken to make sure that the use or disposal of this product and / or its packaging is in compliance with relevant Federal, State and Local Government regulations.</p>

END OF SDS