

# SAFETY DATA SHEET



## 1. Identification

**Product identifier** LINCO-SPECTIN® Antibiotic Soluble Powder for Poultry and Swine (48182)

### Other means of identification

**Synonyms** Linco-spectin soluble powder

### Recommended use of the chemical and restrictions on use

**Recommended use** Veterinary product used as antibiotic agent

**Restrictions on use** Not for human use

### Details of manufacturer or importer

**Company Name (AU)** Zoetis Australia Pty Ltd  
 ABN 94 156 476 425  
 Level 6, 5 Rider Boulevard  
 Rhodes NSW 2138 AUSTRALIA

**Tel** 1800 814 883

**Fax** (02) 8876 0444

**Email** australia.animalhealth@zoetis.com

**Emergency Phone** 1800 814 883 (all hours)

**Police and Fire Brigade** Dial 000

**If ineffective** Dial Poisons Information Centre (13 1126 from anywhere in Australia)

## 2. Hazard(s) identification

### Classification of the hazardous chemical

**Physical hazards** Not classified.

**Health hazards** Serious eye damage/eye irritation Category 2A  
 Sensitization, skin Category 1

**Environmental hazards** Not classified.

### Label elements, including precautionary statements

**Hazard symbol(s)**



Exclamation  
mark

**Signal word** Warning

**Hazard Statement(s)** May cause an allergic skin reaction. Causes serious eye irritation.

### Precautionary Statement(s)

#### Prevention

Avoid breathing dust. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Prevent dust accumulation to minimize explosion hazard. Ground and bond container and receiving equipment. Observe good industrial hygiene practices.

#### Response

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/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

#### Storage

Store away from incompatible materials.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other hazards which do not result in classification

May form combustible dust concentrations in air. The most common adverse effects reported with clinical use were diarrhea, nausea, rash, and vomiting.

Supplemental information None.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Lincomycin Hydrochloride Monohydrate	7179-49-9	222 mg/g
Preservative	Proprietary	*
Spectinomycin Sulfate Tetrahydrate	64058-48-6	445 mg/g

**Composition comments** \*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
<b>Eye contact</b>	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Personal protection for first-aid responders** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

**Symptoms caused by exposure** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

**Medical attention and special treatment** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Apply extinguishing media carefully to avoid creating airborne dust.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed. Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

**Special protective equipment and precautions for fire fighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

**Hazchem Code** None.

**General fire hazards** May form combustible dust concentrations in air. Fine particles (such as mists) may fuel fires/explosions.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Do not breathe dust. Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**For emergency responders** Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Ventilate the contaminated area. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**Methods and materials for containment and cleaning up** Ensure adequate ventilation. Avoid the generation of dusts during clean-up. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Collect spill with an inert, non-combustible absorbent material and transfer to labeled container for disposal. Clean contaminated surface thoroughly. Prevent release to the environment.

Small Spills: Wipe up with a damp cloth and place in container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

## 7. Handling and storage

**Precautions for safe handling** Use with adequate ventilation. Minimise dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. When handling, use appropriate personal protective equipment (see Section 8).

**Conditions for safe storage, including any incompatibilities** Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store below 30°C.

## 8. Exposure controls and personal protection

**Control parameters** Follow standard monitoring procedures.

### Occupational exposure limits

#### Zoetis

#### Components

Components	Type	Value
Lincomycin Hydrochloride Monohydrate (CAS 7179-49-9)	TWA	100 µg/m <sup>3</sup>
Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)	TWA	2000 µg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** No exposure standards allocated.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Provide eyewash station.

### Individual protection measures, for example personal protective equipment (PPE)

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter. Respiratory protection should be provided in instances where exposure to dust, mists, aerosols or vapors are likely.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

**Physical state** Solid.  
**Form** Powder.  
**Colour** Off-white to Light tan

**Odour** Not available.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit – upper (%)** Not available.

**Vapour pressure** Not available.

**Vapour density** Not available.

**Relative density** Not available.

### Solubility(ies)

**Solubility (water)** Soluble

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

### Other physical and chemical parameters

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Contact with incompatible materials. Keep away from heat, sparks and open flame. Minimise dust generation and accumulation. Dust may form explosive mixture with air. Fine particles (such as dust and mists) may fuel fires/explosions.

**Incompatible materials** Strong oxidising agents.

**Hazardous decomposition products** Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur. May include hydrogen chloride.

## 11. Toxicological information

### Information on possible routes of exposure

**Inhalation** Dust may irritate respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Dust or powder may irritate the skin. May cause an allergic skin reaction.

Spectinomycin Sulfate Tetrahydrate  
Species: Rabbit  
Severity: No effect

**Eye contact** Causes serious eye irritation.

Lincomycin Hydrochloride Monohydrate  
Severity: Irritant

Spectinomycin Sulfate Tetrahydrate  
Species: Rabbit  
Severity: Minimal

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to exposure** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

**Acute toxicity** May cause an allergic skin reaction.

Components	Species	Test results
Lincomycin Hydrochloride Monohydrate (CAS 7179-49-9)		
<b>Acute</b>		
<b>Intravenous</b>		
LD50	Mouse	214 mg/kg
<b>Oral</b>		
LD50	Rat	> 4000 mg/kg
<b>Other</b>		
LD50	Rat	342 mg/kg (Para-periosteal)
<b>Subcutaneous</b>		
LD50	Rat	9778 mg/kg
<b>Chronic</b>		
<b>Oral</b>		
NOAEL	Dog	100 mg/kg/day, 6 months (Target organ(s): Immune system)
<b>Subacute</b>		
<b>Oral</b>		
NOAEL	Rat	300 mg/kg/day, 30 days (No effects at maximum dose)
<b>Subcutaneous</b>		
NOAEL	Rat	60 mg/kg/day, 30 days (Target organ(s): None identified)
<b>Subchronic</b>		
<b>Oral</b>		
LOAEL	Dog	400 mg/kg/day, 3 months (Target organ(s): None identified)
NOAEL	Rat	300 mg/kg/day, 3 months (Target organ(s): None identified)
Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)		
<b>Acute</b>		
<b>Intravenous</b>		
LD50	Mouse	1022 mg/kg

Components	Species	Test results
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg
<b>Other</b>		
LD50	Mouse	3577 mg/kg [Sub-tenon injection (eye)]
<b>Subchronic</b>		
<b>Oral</b>		
LOAEL	Rat	3000 mg/kg/day, 13 weeks (Target organ(s): None identified)
NOAEL	Dog	50 mg/kg/day, 90 days (Target organ(s): None identified)
	Rat	400 mg/kg/day, 13 weeks (Target organ(s): None identified)
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Corrosivity</b>		
Spectinomycin Sulfate Tetrahydrate		Severity: No effect
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.	
<b>Eye contact</b>		
Lincomycin Hydrochloride Monohydrate		Severity: Irritant
Spectinomycin Sulfate Tetrahydrate		Species: Rabbit Severity: Minimal
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.	
<b>Skin sensitisation</b>	May cause an allergic skin reaction.	
<b>Skin sensitisation</b>		
Lincomycin Hydrochloride Monohydrate		Severity: Sensitiser
Spectinomycin Sulfate Tetrahydrate		Severity: Sensitiser
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Mutagenicity</b>		
Lincomycin Hydrochloride Monohydrate		Bacterial Mutagenicity (Ames) Result: negative Species: Salmonella
Spectinomycin Sulfate Tetrahydrate		Bacterial Mutagenicity (Ames) Result: negative Species: Salmonella
Lincomycin Hydrochloride Monohydrate		Direct DNA Interaction Result: negative Species: Human lymphocytes
Spectinomycin Sulfate Tetrahydrate		In Vitro Chromosome Aberration Result: negative Species: Chinese Hamster Ovary (CHO) cells
		In Vitro Unscheduled DNA Synthesis Result: negative Species: Rat Hepatocyte
		In Vivo Micronucleus Result: negative Species: Mouse Bone Marrow

**Mutagenicity**

Lincomycin Hydrochloride Monohydrate

In Vivo Micronucleus

Result: negative

Species: Rat

Mammalian Cell Mutagenicity

Result: negative

Species: Mouse Lymphoma

**Carcinogenicity**

Due to partial or complete lack of data the classification is not possible.

**Reproductive toxicity**

This compound can cross the placenta in pregnant women.; may be secreted in human breast milk. This product is not expected to cause reproductive or developmental effects.

**Developmental effects**

Lincomycin Hydrochloride Monohydrate

100 mg/kg Prenatal &amp; Postnatal Development, Not

Teratogenic

Result: NOEL

Species: Rat

Organ: Oral

Spectinomycin Sulfate Tetrahydrate

1000 mg/kg/day Embryo / Fetal Development, (Maternal Toxicity)

Result: NOAEL

Species: Rat

Organ: Oral

2000 mg/kg/day Embryo / Fetal Development, (Fetotoxicity)

Result: NOAEL

Species: Rat

Organ: Oral

Lincomycin Hydrochloride Monohydrate

30 mg/kg/day Peri-/Postnatal Development, No effects at maximum dose

Result: NOAEL

Species: Rat

Organ: Subcutaneous

300 mg/kg/day Embryo/Fetal Development, Not Teratogenic

Result: NOAEL

Species: Rat

Organ: Subcutaneous

75 mg/kg/day Fertility and Embryonic Development, No effects at maximum dose

Result: NOAEL

Species: Rat

Organ: Subcutaneous

**Reproductivity**

Lincomycin Hydrochloride Monohydrate

100 mg/kg 2 Generation Reproductive Toxicity, Fetotoxicity

Result: LOAEL

Species: Rat

Organ: Oral

Spectinomycin Sulfate Tetrahydrate

2000 mg/kg/day Reproductive &amp; Fertility, (Maternal Toxicity, Paternal toxicity, Fetotoxicity)

Result: NOAEL

Species: Rat

Organ: Oral

400 mg/kg/day Reproductive &amp; Fertility, (Maternal toxicity, Paternal toxicity, Fetotoxicity)

Result: NOEL

Species: Rat

Organ: Oral

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

Components	Species	Test results
Lincomycin Hydrochloride Monohydrate (CAS 7179-49-9)		
EC50	Anabaena flos-aquae (Cyanobacteria)	0.03 mg/l, 72 Hours
	Daphnia magna (Water Flea)	> 900 mg/l, 48 Hours
LC50	Lepomis macrochirus (Bluegill Sunfish)	> 980 mg/l, 96 Hours
	Salmo gairdneri (Trout)	> 980 mg/l, 96 Hours
Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)		
EC50	Daphnia magna (Water Flea)	> 1000 mg/l, 48 Hours
	Selenastrum capricornutum (Green Alga)	1.18 mg/l, 72 Hours
LC50	Oncorhynchus mykiss (Rainbow Trout)	> 118 mg/l, 96 Hours

**Persistence and degradability** No data is available on the degradability of this product.

### Bioaccumulative potential

**Partition coefficient  
n-octanol / water (log Kow)**

Spectinomycin Sulfate Tetrahydrate -2.44, (Log D, measured, pH 7.4)

**Mobility in soil** This product is miscible in water.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal methods** Avoid release to the environment. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### ADG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

### Safety, health and environmental regulations



## National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

### High Volume Industrial Chemicals (HVIC)

Not listed.

### Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

### National Pollutant Inventory (NPI) substance reporting list

Not listed.

### Prohibited Carcinogenic Substances

Not regulated.

### Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

### Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

### Restricted Carcinogenic Substances

Not regulated.

## International regulations

### Stockholm Convention

Not applicable.

### Rotterdam Convention

Not applicable.

### Kyoto protocol

Not applicable.

### Montreal Protocol

Not applicable.

### Basel Convention

Not applicable.

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

### Issue date

14-December-2016

### Disclaimer

Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

This SDS replaces version dated 06/21/2016 (issued 28 December 2016)

**Revision information**

Product and Company Identification: Synonyms  
Composition / Information on Ingredients: Ingredients  
Exposure Controls / Personal Protection: OELs  
Physical & Chemical Properties: Multiple Properties  
GHS: Classification