



# SAFETY DATA SHEET

## 1. Identification

**Product Identifier** Elanco AF0374 Surmax 200 Avilamycin Premix  
**Other means of Identification**  
**Synonyms** Avilamycin Premix \* Maxus \* Kavault \* Surmax Premix  
**Item Code** AF0375, AF0369, AF0374  
**Recommended use of the chemical and restrictions on use**  
**Recommended use** Veterinary Product  
**Restrictions on use** Not available.  
**Details of manufacturer or importer**  
**Manufacturer**  
**Company name** Elanco Australasia Pty Ltd.  
ACN: 076 745 198  
**Address** 112 Wharf Road  
West Ryde, NSW 2114  
Australia  
**Telephone** 1800 226 324 (toll free)  
**e-mail** lilly\_msds@lilly.com  
**Emergency phone number** Elanco Australasia 1800 226 324 (toll free)  
**24 hr emergency contact number** CHEMWATCH 1800 039 008 (spills and accidents)  
**24 hr emergency contact number (Local)** CHEMWATCH +61 2 9186 1132 (spills and accidents)

## 2. Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Serious eye damage/eye irritation	Category 2A	Causes serious eye irritation.
Sensitization, respiratory	Category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Avilamycin, Excipient: Grain Dust

##### Hazard pictograms



**Signal word** Danger

**Hazard statements** Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Precautionary statements

**Prevention** Avoid breathing dust. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

<b>Response</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. 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.
<b>Storage</b>	Not available.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental label information</b>	None.
<b>2.3. Other hazards</b>	None known.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Avilamycin [(2R,3S,4R,6S)-6-[(2'R,3'S,3aR,4R,4'R,6S,7aR)-6-[(2S,3R,4R,5S,6R)-2-[(2R,3S,4S,5S,6S)-6-[(2R,3aS,3'aR,6'R,7R,7'S,7aR,7'aR)-7'-acetyl-7'-hydroxy-6'-methyl-7-(2-methylpropanoyloxy)spiro[4,6,7,7a-tetrahydro-3aH-[1,3]dioxolo[4,5-d]pyran-2,4'-6,7a-dihydro-3aH-[1,3]dioxolo[4,5-c]pyran]-6-yl]oxy-4-hydroxy-5-methoxy-2-(methoxymethyl)oxan-3-yl]oxy-3-hydroxy-5-methoxy-6-methyloxan-4-yl]oxy-4'-hydroxy-2',4,7a-trimethylspiro[3a,4,6,7-tetrahydro-[1,3]dioxolo[5,4-c]pyran-2,6'-oxane]-3'-yl]oxy-4-hydroxy-2-methyloxan-3-yl]3,5-dichloro-4-hydroxy-2-methoxy-6-methylbenzoate	11051-71-1	20
Excipient: Grain Dust	NA	77 - 80
Anti-dusting oil MINERAL OIL	8012-95-1	<= 3

**Composition comments** Excipients may include: Rice hulls. Soybean mill run. The anti-dusting oil reduces potential exposure under normal handling conditions of use.

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Get medical attention immediately.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Give several glasses of water. Never give liquid to an unconscious person. Call a physician or poison control centre immediately.
<b>Personal protection for first-aid responders</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
<b>Symptoms caused by exposure</b>	Irritating to eyes. Wheezing.
<b>Medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemicals. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	None known.

**Specific hazards arising from the chemical** Dust may form explosive mixture with air.  
No ignition up to 2.0 oz/cu ft (2 kg/m<sup>3</sup>)  
Minimum Ignition Temperature of Dust Layer: 200 C

**Special protective equipment and precautions for fire fighters** Wear self-contained breathing apparatus and protective clothing.

**Fire fighting equipment/instructions** Move containers from fire area if you can do so without risk.

**Hazchem Code** 2X

**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

**For non-emergency personnel** Avoid inhalation of dust. Wear suitable protective clothing, gloves and eye/face protection. See Section 8 for personal protective equipment.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground. Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes.

**Methods and materials for containment and cleaning up** Vacuum material with appropriate dust collection filter in place. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping. Large spills due to traffic accidents, etc., should be reported immediately to CHEMWATCH and Elanco Animal Health for assistance.

## 7. Handling and storage

**Precautions for safe handling** Minimise dust generation and accumulation. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment.

**Conditions for safe storage, including any incompatibilities** Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

Lilly (LEG) Material	Type	Value	
Elanco AF0374 Surmax 200 Avilamycin Premix	TWA (8hrs)	4 mg/m <sup>3</sup>	
Components	Type	Value	
Avilamycin (CAS 11051-71-1)	TWA (8hrs)	10 mg/m <sup>3</sup>	
ACGIH Components	Type	Value	Form
Excipient: Grain Dust	TWA	4 mg/m <sup>3</sup>	(grain dust)
United Kingdom Components	Type	Value	Form
Excipient: Grain Dust	STEL	30 mg/m <sup>3</sup>	inhalable fraction (grain dust)
	TWA	10 mg/m <sup>3</sup>	inhalable fraction (grain dust)

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

**Appropriate engineering controls** Laboratory fume hood or local exhaust ventilation.

In a manufacturing setting, wear chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles). (AS/NZS 1337)

<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves. (AS 2161)
<b>Other</b>	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor. (AS/NZS 1715)
<b>Thermal hazards</b>	Not available.
<b>Hygiene measures</b>	Under normal use and handling conditions, wear goggles to protect eyes and wear impermeable gloves and protective equipment to avoid direct contact with skin. Wash thoroughly with soap and water after handling.  When mixing and handling, use protective clothing, impervious gloves, and dust respirator (recommended). Operators should wash thoroughly with soap and water after handling. If accidental eye contact occurs, immediately rinse with plenty of water.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Free flowing material which may contain light colored particles.
<b>Colour</b>	Brown
<b>Odour</b>	Musty
<b>Odour threshold</b>	No data available.
<b>pH</b>	6 - 8
<b>Melting point/freezing point</b>	No data available.
<b>Initial boiling point and boiling range</b>	No data available.
<b>Flash point</b>	No data available.
<b>Evaporation rate</b>	No data available.
<b>Flammability (solid, gas)</b>	No test data available.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	No data available.
<b>Flammability limit - upper (%)</b>	No data available.
<b>Explosive limit - lower (%)</b>	No data available.
<b>Explosive limit – upper (%)</b>	No data available.

<b>Vapour pressure</b>	No data available.
<b>Vapour density</b>	No data available.
<b>Relative density</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Auto-ignition temperature</b>	No data available.
<b>Decomposition temperature</b>	No data available.
<b>Viscosity</b>	No data available.
<b>Other physical and chemical parameters</b>	
<b>Density</b>	No data available.
<b>Explosive properties</b>	Not explosive
<b>Flammability</b>	No data available.

<b>Molecular weight</b>	No data available.
<b>Oxidising properties</b>	The substance or mixture is not classified as oxidizing.
<b>Thermal hazards</b>	
<b>Thermal stability</b>	Not applicable.
<b>VOC</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	Fire or excessive heat may produce hazardous decomposition products.

## 11. Toxicological information

**General Information** Not available.

### 11.1. Information on toxicological effects

<b>Components</b>	<b>Species</b>	<b>Test results</b>
Avilamycin (CAS 11051-71-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD	Rabbit	> 2000 mg/kg (14.9% formulation)
<b>Inhalation</b>		
LC50	Rat	> 770 mg/m <sup>3</sup> , 4 hours (14.9% formulation)
<b>Oral</b>		
LD	Rat	> 5000 mg/kg (14.9% formulation)
<b>Skin corrosion/irritation</b>	(14.9% Avilamycin) Rabbit: Slight irritation. Based on available data, the classification criteria are not met.	
<b>Serious eye damage/eye irritation</b>	Rabbit: Irritating to eyes. (14.9 % Avilamycin) (cleared within 7 days)	
<b>Respiratory sensitisation</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Allergic reactions in a manufacturing setting have been reported. Did not cause sensitization on laboratory animals. (Avilamycin)	
<b>Skin sensitisation</b>	Allergic reactions in a manufacturing setting have been reported. Did not cause sensitization on laboratory animals. (Avilamycin) Based on available data, the classification criteria are not met.	
<b>Germ cell mutagenicity</b>	Result in genetic toxicity assays (in vitro and in vivo): Negative (Avilamycin)	
<b>Carcinogenicity</b>	No effects identified in animal studies. (Avilamycin)	
<b>Reproductive toxicity</b>	No effects identified in animal studies. (Avilamycin)	
<b>Specific target organ toxicity - single exposure</b>	No effects identified in animal studies. (Avilamycin)	
<b>Specific target organ toxicity - repeated exposure</b>	No target organ toxicity identified through animal studies. (Avilamycin)	
<b>Aspiration hazard</b>	No aspiration toxicity classification	
<b>Mixture versus substance information</b>	No information available.	
<b>Other information</b>	Not available.	

## 12. Ecological information

### Ecotoxicity

Components	Species	Test results	
Avilamycin (CAS 11051-71-1)	Audrain (Silty clay loam)	66.5 ml/g Mean Kd (adsorption)	
	Mutcher sandy loam, pesticide free (sandy clay loam)	143 ml/g Mean Kd (adsorption)	
	Raymondville (Sandy clay loam)	2.05 ml/g Mean Kd (adsorption)	
	Tehama (Loam)	56 ml/g Mean Kd (adsorption)	
	Tift (Sand)	3.57 ml/g Mean Kd (adsorption)	
<i>Acute</i>	LC50		
	Anas platyrhynchos (Mallard duck)	> 730 ppm, 5 days (Dietary)	
	Colinus virginianus (Quail)	> 660 ppm, 5 days (Dietary)	
	Earthworm (Eisenia fetida)	> 100 mg/kg, 14 days	
	Oncorhynchus mykiss (rainbow trout)	> 47.8 mg/l, 96 hours	
LD50	Colinus virginianus (Quail)	> 372.5 mg/kg, 5 days	
<i>Chronic</i>	EC50		
	Corn (Zea mays)	> 500 mg/kg, 21 days	
	Earthworm (Eisenia fetida)	> 1300 mg/kg, 56 days (reproduction)	
	Oat (Avena sativa)	> 500 mg/kg, 21 days	
	Radish (Raphanus sativus)	> 500 mg/kg, 21 days	
	Soybean (Glycine max)	> 500 mg/kg, 21 days	
	Sugar beet (Beta vulgaris)	> 500 mg/kg, 21 days	
	Tomato (Solanum lycopersicon)	> 500 mg/kg, 21 days	
NOEC	Earthworm (Eisenia fetida)	1300 mg/kg, 56 days (reproduction)	
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 138 mg/l, 48 hours
	NOEC	Water flea (Daphnia magna)	138 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 35.4 mg/l, 96 hours

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

**Bioaccumulative potential** No data available.

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

Avilamycin 0.681 Shake flask method, (pH 9)  
2.55 Shake flask method, (pH 7)  
3.97 Shake flask method, (pH 4.5)

**Bioconcentration factor  
(BCF)**

Avilamycin 15

**Mobility in soil** Not available.

**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.

### Ecotoxicological Properties

#### Drinking Water

Components	Test results
Avilamycin	6.6 mg/l, (Lilly Aquatic Exposure Guideline)

### Chronic Exposure of Aquatic Organisms

#### Components

Avilamycin

#### Test results

2.4 mg/l, (Lilly Aquatic Exposure Guideline)

### Acute Exposure of Aquatic Organisms

#### Components

Avilamycin

#### Test results

12 mg/l, (Lilly Aquatic Exposure Guideline)

## 13. Disposal considerations

### Disposal methods

Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 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

APVMA approval number 62195  
Poison Schedule 4

#### Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix C

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix E

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix F

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

#### Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 3**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 4**

Avilamycin (CAS 11051-71-1)

applies to all preparations in any concentration Exception may apply, see the regulation for relevance.

**Australia Medicines & Poisons Schedule 5**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 6**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 7**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 8**

Poisons schedule number not allocated.

**Australia Medicines & Poisons Schedule 9**

Poisons schedule number not allocated.

**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



<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
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

<b>List of abbreviations</b>	Not available.
<b>References</b>	Not available.
<b>Information on evaluation method leading to the classification of mixture</b>	Not available.
<b>Full text of any statements or R-phrases and H-statements under Sections 2 to 15</b>	R36 Irritating to eyes. R37 Irritating to respiratory system. R42 May cause sensitisation by inhalation. R65 Harmful: may cause lung damage if swallowed. May be fatal if swallowed and enters airways. Causes serious eye irritation. Causes eye irritation.
<b>Lilly Lab Code</b>	Health: 2 Fire: 1 Reactivity: 0 Special 1: A
<b>Revision information</b>	Physical & Chemical Properties: Multiple Properties Regulatory Information: Lilly Lab Codes
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