



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.

Response	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.
Storage	Not available.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental label information	None.
2.3. Other hazards	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

Inhalation	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.
Skin contact	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.
Eye contact	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.
Ingestion	Give several glasses of water. Never give liquid to an unconscious person. Call a physician or poison control centre immediately.
Personal protection for first-aid responders	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.
Symptoms caused by exposure	Irritating to eyes. Wheezing.
Medical attention and special treatment	Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Water fog. Foam. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	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/m³)
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 ³	
Components	Type	Value	
Avilamycin (CAS 11051-71-1)	TWA (8hrs)	10 mg/m ³	
ACGIH Components	Type	Value	Form
Excipient: Grain Dust	TWA	4 mg/m ³	(grain dust)
United Kingdom Components	Type	Value	Form
Excipient: Grain Dust	STEL	30 mg/m ³	inhalable fraction (grain dust)
	TWA	10 mg/m ³	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)

Skin protection	
Hand protection	Chemical resistant gloves. (AS 2161)
Other	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
Respiratory protection	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)
Thermal hazards	Not available.
Hygiene measures	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

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

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Explosive limit - lower (%)	No data available.
Explosive limit – upper (%)	No data available.

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

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

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	Hazardous polymerisation does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Fire or excessive heat may produce hazardous decomposition products.

11. Toxicological information

General Information Not available.

11.1. Information on toxicological effects

Components	Species	Test results
Avilamycin (CAS 11051-71-1)		
Acute		
Dermal		
LD	Rabbit	> 2000 mg/kg (14.9% formulation)
Inhalation		
LC50	Rat	> 770 mg/m ³ , 4 hours (14.9% formulation)
Oral		
LD	Rat	> 5000 mg/kg (14.9% formulation)
Skin corrosion/irritation	(14.9% Avilamycin) Rabbit: Slight irritation. Based on available data, the classification criteria are not met.	
Serious eye damage/eye irritation	Rabbit: Irritating to eyes. (14.9 % Avilamycin) (cleared within 7 days)	
Respiratory sensitisation	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)	
Skin sensitisation	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.	
Germ cell mutagenicity	Result in genetic toxicity assays (in vitro and in vivo): Negative (Avilamycin)	
Carcinogenicity	No effects identified in animal studies. (Avilamycin)	
Reproductive toxicity	No effects identified in animal studies. (Avilamycin)	
Specific target organ toxicity - single exposure	No effects identified in animal studies. (Avilamycin)	
Specific target organ toxicity - repeated exposure	No target organ toxicity identified through animal studies. (Avilamycin)	
Aspiration hazard	No aspiration toxicity classification	
Mixture versus substance information	No information available.	
Other information	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)	
<i>Aquatic</i>			
	<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

Country(s) or region	Inventory name	On inventory (yes/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

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	Not available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	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.
Lilly Lab Code	Health: 2 Fire: 1 Reactivity: 0 Special 1: A
Revision information	Physical & Chemical Properties: Multiple Properties Regulatory Information: Lilly Lab Codes
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