



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Monteban Premix</b>
<b>Other means of identification</b>	
<b>Item Code</b>	AF1535, AF0615, AH0615, AF0611, AF0506, AF0507, MS8260, AF0515, AF0511, AF0512, AF0510, MS8261, AF0505, AF1542
<b>Recommended use</b>	Feed additive (functional group coccidiostats)
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	
<b>Company Name</b>	Elanco Animal Health 2500 Innovation Way Greenfield, IN 46140 US
<b>Phone:</b>	1-877-Elanco1 (1-877-352-6261)
<b>Email:</b>	lilly_msds@lilly.com
<b>Emergency Telephone Numbers:</b>	Elanco Product Technical Support / Human or Animal Exposure Reporting: 1-888-545-5973 Transportation Emergency Telephone: CHEMTREC: 1-800-424-9300 (Outside U.S. 1-703-527-3887)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, respiratory	Category 1
	Specific target organ toxicity, repeated exposure	Category 1
<b>OSHA defined hazards</b>	Combustible dust	
<b>Label elements</b>		

**Signal word** Danger

### Hazard statement

H302	May form combustible dust concentrations in air.
H315	Harmful if swallowed.
H318	Causes skin irritation.
H334	Causes serious eye damage.
H372	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	Causes damage to organs (Heart, Nervous system, Muscle) through prolonged or repeated exposure.

### Precautionary statement

#### Prevention

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.

#### Response

P304 + P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
<b>Storage</b>	Not available.
<b>Disposal</b>	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Narasin	(2R)-2-((2R,3S,5S,6R)-6-[(1S,2S,3S,5R)-5-((2S,5S,7R,9S,10S,12R,15R)-2-[(2R,5R,6S)-5-ethyl-5-hydroxy-6-methyltetrahydro-2H-pyran-2-yl]-15-hydroxy-2,10,12-trimethyl-1,6,8-trioxadispiro[4.1.5.3]pentadec-13-en-9-yl)-2-hydroxy-1,3-dimethyl-4-oxoheptyl]-3,5-dimethyltetrahydro-2H-pyran-2-yl)butanoic acid Salinomycin, 4-methyl-, (4S)-	55134-13-9	5 - 11
Excipient: Grain Dust		NA	88
Anti-dusting oil	MINERAL OIL	8012-95-1	2

Remaining components are non-hazardous and/or below required reporting limits.

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

### 4. First-aid measures

<b>Inhalation</b>	This formulation is not considered to be toxic by inhalation due to its coarse granular nature and its low potential for aerosolization. If inhaled, remove to fresh air. Oxygen or artificial respiration if needed. Call a physician or poison control center immediately.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Immediate rinsing may prevent permanent damage. Get medical attention.
<b>Ingestion</b>	Give several glasses of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician or poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Causes serious eye irritation. May cause skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Change in heart rate or rhythm.
<b>Indication of immediate medical attention and special treatment needed</b>	Immediate rinsing may prevent permanent damage (eyes).
<b>General information</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water. Carbon dioxide (CO2). Dry chemical.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Fire or excessive heat may produce hazardous decomposition products. Dust may form explosive mixture with air.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective clothing.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Wear suitable protective clothing, gloves and eye/face protection. See Section 8 of the SDS for Personal Protective Equipment.

### Methods and materials for containment and cleaning up

#### Small Spillages:

Do not sweep. Collect spill using a vacuum cleaner with a HEPA filter. 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 Spillages:

Prevent further migration into the environment. Remove sources of ignition. Collect in a non-combustible container for prompt disposal. Local authorities should be advised if significant spillages cannot be contained. Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC and Elanco Animal Health for assistance.

### Environmental precautions

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

## 7. Handling and storage

### Precautions for safe handling

Caution! Do not allow adult turkeys, horses or other equines access to formulations containing Narasin. Ingestion of narasin by equines and adult turkeys has been fatal. Do not feed to laying chickens.

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Minimize dust generation and accumulation. Keep away from heat and sources of ignition. Avoid release to the environment.

### Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures. Avoid contact with oxidizing agents. Do not store in open or unlabelled containers.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### Lilly (LEG) Components

Components	Type	Value
Narasin (CAS 55134-13-9)	TWA (12hrs)	11 ug/m3

### Occupational exposure limits

#### ACGIH

#### Components

Components	Type	Value	Form
Excipient: Grain Dust (CAS NA)	TWA	4 mg/m3	(grain dust)

#### US. ACGIH Threshold Limit Values Components

Components	Type	Value	Form
Anti-dusting oil (CAS 8012-95-1)	TWA	5 mg/m3	Inhalable fraction.

#### U.S. - OSHA Components

Components	Type	Value	Form
Excipient: Grain Dust (CAS NA)	TWA	10 mg/m3	(grain dust)

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components

Components	Type	Value	Form
Anti-dusting oil (CAS 8012-95-1)	PEL	5 mg/m3	Mist.

#### US. NIOSH: Pocket Guide to Chemical Hazards Components

Components	Type	Value	Form
Anti-dusting oil (CAS 8012-95-1)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

<b>Appropriate engineering controls</b>	Use appropriate control measures such as fume hood, ventilated enclosure, local exhaust ventilation, or down-draft booth.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear goggles/face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
<b>Other</b>	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
<b>Respiratory protection</b>	Use an approved respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.
<b>Thermal hazards</b>	Not available.
<b>General hygiene considerations</b>	Use good industrial hygiene practices in handling this material.
	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.
	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

<b>Appearance</b>	Granular.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Tan to Brown
<b>Odor</b>	No data available.
<b>Odor threshold</b>	No data available.
<b>pH</b>	No data available.
<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.
<b>Upper/lower flammability or explosive limits</b>	
<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>Vapor pressure</b>	No data available.
<b>Vapor density</b>	No data available.
<b>Relative density</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	No data available.
<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 information</b>	
<b>Density</b>	No data available.

**Explosive properties** Not explosive  
**Oxidizing properties** The substance or mixture is not classified as oxidizing.  
**Percent volatile** No data available.  
**VOC (Weight %)** No data available.

**9.2. Other information**

**Minimum Ignition Temperature** No data available.

**10. Stability and reactivity**

**Reactivity** Not available.  
**Chemical stability** Material is stable under normal conditions.  
**Possibility of hazardous reactions** Hazardous polymerization does not occur.  
**Conditions to avoid** None known.  
**Incompatible materials** Strong oxidizing agents.  
**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions..

**11. Toxicological information**

**Information on toxicological effects**

**Acute toxicity** Harmful if swallowed.  
This formulation is not considered to be toxic by inhalation due to its coarse granular nature and its low potential for aerosolization.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Monteban Premix (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	5000 mg/kg No mortality. No toxicity.
<i>Oral</i>		
LD50	Rat	331 mg/kg
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Narasin (CAS 55134-13-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD	Rabbit	> 500 mg/kg No mortality. No toxicity.
<i>Inhalation</i>		
LC50	Rat	87 mg/m3, 4 h
<i>Oral</i>		
LD50	Rat	26.9 mg/kg
<b>Skin corrosion/irritation</b>	Rabbit: Severe skin irritation.	
<b>Serious eye damage/eye irritation</b>	Rabbit: Immediate rinsing may prevent permanent damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	May cause sensitization by inhalation. (Grain dust)	
<b>Skin sensitization</b>	Did not cause sensitization on laboratory animals. (Narasin) 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 (Narasin) Remaining ingredients: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Based on available data, the classification criteria are not met.	
<b>Carcinogenicity</b>	No effects identified in animal studies. No ingredients present at 0.1% (one-tenth percent) or greater are listed by IARC, NTP, ACGIH, or OSHA. (Narasin) Based on available data, the classification criteria are not met.	

## IARC Monographs. Overall Evaluation of Carcinogenicity

Anti-dusting oil (CAS 8012-95-1)

3 Not classifiable as to carcinogenicity to humans.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

<b>Reproductive toxicity</b>	No effects identified in animal studies. (Narasin) Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	No effects identified in animal studies. (Narasin) Remaining ingredients: No significant target organ toxicity reported. Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Animal studies have reported the following effects: Central nervous system effects. Convulsions. Tremors. Heart effects. Change in heart rate or rhythm. Skeletal muscle effects. (Narasin)
<b>Aspiration hazard</b>	No aspiration toxicity classification.

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
Narasin (CAS 55134-13-9)			
	LC50	Earthworm ( <i>Eisenia fetida</i> )	46.4 mg/kg, 14 d
Other	LC50	Duck	3800 mg/l, 5 d Dietary (mycelial)
		Quail	630 mg/l, 5 d Dietary (mycelial)
			73.96 mg/kg, 14 d Male
			70 - 100 mg/kg, 14 d Female
<i>Acute</i>			
Other	EC50	<i>Pseudokirchnerella subcapitata</i>	2.92 mg/l, 72 h (average specific growth rate) 0.77 mg/l, 72 h (biomass)
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	<i>Daphnia magna</i>	7.72 mg/l, 48 h
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	3.27 mg/l, 96 h
		Rainbow Trout	1.4 - 2 mg/l, 96 h

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

Soil biodegradation half-life (days): 21, 49, 29 (sandy loam, loam, clay loam) (Narasin)  
Soil microflora: Carbon transformation: no significant effects at 17.43 mg/kg  
Nitrogen transformation: no significant effects at 17.43 mg/kg (Narasin)

### Photolysis

#### Half-life (Photolysis-aqueous)

Narasin 1.5 days, (pH 7)

#### Half-life (Photolysis-soil)

Narasin 8.8 days

### Hydrolysis

#### Half-life (Hydrolysis)

Narasin 3.5 days, (pH 5)

**Bioaccumulative potential** Kow < 4 (Narasin)

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

Narasin > 6.2, (HPLC)  
4.85, (pH 8)

**Mobility in soil** No data available.

### Adsorption

#### Soil/sediment sorption - log Koc

Narasin > 5.63, (pH 4.5 and 6)

**Other adverse effects** German Water Hazard Classification: WGK 3 (severe hazard to waters)

## Ecotoxicological Properties

### Drinking Water

#### Components

Narasin

#### Test Results

30 µg/l, (Lilly Aquatic Exposure Guideline)

### Chronic Exposure of Aquatic Organisms

#### Components

Narasin

#### Test Results

15.5 µg/l, (Lilly Aquatic Exposure Guideline)

### Acute Exposure of Aquatic Organisms

#### Components

Narasin

#### Test Results

139 µg/l, (Lilly Aquatic Exposure Guideline)

## 13. Disposal considerations

### Disposal instructions

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

## 14. Transport information

### DOT

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

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

**US. Massachusetts RTK - Substance List**

Anti-dusting oil (CAS 8012-95-1)

**US. New Jersey Worker and Community Right-to-Know Act**

Anti-dusting oil (CAS 8012-95-1)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Anti-dusting oil (CAS 8012-95-1)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	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, including date of preparation or last revision****Issue date** 06-03-2014**Revision date** 12-01-2014**Version #** 02

**Lilly Lab Code** Health: 3  
 Fire: 1  
 Reactivity: 0  
 Special 1: A

**List of abbreviations** LEG: Lilly Exposure Guideline  
 TWA: Time Weighted Average

**Disclaimer** As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:  
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 00+1-800-428-4441

**Revision Information** Composition / Information on Ingredients: Ingredients  
 Physical & Chemical Properties: Multiple Properties  
 Stability and reactivity: Hazardous decomposition products  
 Disposal considerations: Disposal instructions  
 GHS: Classification