

## 1. Identification

<b>Product identifier</b>	<b>Coban Premix</b>
<b>Other means of identification</b>	
<b>Item Code</b>	AF1306, AF1309, AF1316, AF1318, AF1323, AF1324, MS8250, AF1321
<b>Synonyms</b>	Coban 45 * Coban 60 * Coban 90 * Monensin Sodium * Monensin * Coban
<b>Recommended use</b>	Veterinary Product
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company name</b>	Elanco Animal Health
<b>Division</b>	Eli Lilly Canada Inc.
<b>Address</b>	Research Park Center 150 Research Lane, Suite 120 Guelph, ON N1G 4T2
<b>Country</b>	Canada
<b>Telephone</b>	+1+317-276-2000
<b>E-mail</b>	elanco_sds@elanco.com

<b>Dangerous Goods</b>	CANUTEC (24 HR) 1-613-996-6666
<b>Emergency</b>	
<b>Supplier</b>	Not available.

## 2. Hazard identification

<b>Physical hazards</b>	Combustible dusts	Category 1
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Serious eye damage/eye irritation	Category 1
	Sensitization, respiratory	Category 1
	Specific target organ toxicity following repeated exposure	Category 2 (Heart, Muscles)
<b>Environmental hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May form combustible dust concentrations in air. Harmful if swallowed. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs (Heart, Muscles) through prolonged or repeated exposure.
<b>Precautionary statement</b>	
<b>Prevention</b>	Do not breathe dust/fume. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Rinse mouth. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	Not available.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Monensin sodium		22373-78-0	9 - 13.2
Excipient: Grain Dust		NA	84.8
Anti-Dusting Oil	MINERAL OIL	8012-95-1	2

**Composition comments** Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.  
The anti-dusting oil reduces potential exposure under normal handling conditions of use.

### 4. First-aid measures

**Inhalation** Move to fresh air. Oxygen or artificial respiration if needed. IF exposed or concerned: Get medical advice/attention.

**Skin contact** 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.

**Eye contact** In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate rinsing may prevent permanent damage. Get medical attention immediately.

**Ingestion** 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 centre immediately.

**Most important symptoms/effects, acute and delayed** Harmful if swallowed. Causes eye burns. May cause allergic respiratory reaction. Prolonged or repeated exposure may cause: May cause heart effects. May cause muscle effects.

**Indication of immediate medical attention and special treatment needed** Immediate rinsing may prevent permanent damage (eyes).

**General information** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 5. Fire-fighting measures

**Suitable extinguishing media** Water. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** Dust may form explosive mixture with air.  
Fire or excessive heat may produce hazardous decomposition products.

**Special protective equipment and precautions for firefighters** 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 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 further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

### 7. Handling and storage

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

**Conditions for safe storage, including any incompatibilities**

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

## 8. Exposure controls/personal protection

### Occupational exposure limits

ACGIH Components	Type	Value	Form
Excipient: Grain Dust	TWA	4 mg/m3	(grain dust)
Elanco OEL Components	Type	Value	
Monensin sodium (CAS 22373-78-0)	TWA (12hrs)	15 ug/m3	

### Biological limit values

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

### Appropriate engineering controls

Laboratory fume hood or local exhaust ventilation.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear goggles/face shield.

#### Skin protection

##### Hand protection

Chemical resistant gloves.

##### Other

Chemical-resistant gloves and impermeable body covering to minimize skin contact.

#### Respiratory protection

Use an approved respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator.

#### Thermal hazards

Not available.

### General hygiene considerations

NOT INTENDED FOR HUMAN USE.

Caution: Do not feed undiluted to animals. Product is for replacement chickens intended for use as cage layers only. Do not feed to laying chickens. Do not feed to chickens over 16 weeks of age. Do not allow horses, other equines, mature turkeys, or guinea fowl access to feed containing monensin sodium. Ingestion of monensin sodium by horses, mature turkeys, and guinea fowl has been fatal. Some strains of turkey coccidia may be monensin sodium tolerant or resistant. Monensin sodium may interfere with development of immunity to turkey coccidiosis. Coccidiosis risk in young turkeys not receiving anticoccidials outweighs the risk of infrequent coccidiosis outbreaks that may occur following drug withdrawal. Coccidiosis is more pathogenic to young than older turkeys, but non-immune turkeys may experience weight loss if infected after drug withdrawal. In the absence of coccidiosis in broiler chickens, the use of monensin sodium with no withdrawal period may limit feed intake resulting in reduced weight gain.

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.

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

Dry flowable granules.

#### Physical state

Solid.

#### Form

Solid.

#### Colour

Brown

### Odour

Musty.

### Odour threshold

No data available.

<b>pH</b>	5 - 6 (50% suspension)
<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 flash up to 65.6 C (150 F)
<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 ignition up to 2.0 oz/cu ft.
<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>	185 °C (365 °F) (Coban 45) 190 °C (374 °F) (Coban 60)
<b>Decomposition temperature</b>	No data available.
<b>Viscosity</b>	No data available.
<b>Other information</b>	
<b>Density</b>	No data available.
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	The substance or mixture is not classified as oxidizing.
<b>Percent volatile</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity</b>	Not water reactive.
<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>	None known.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions..

## 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** Harmful if swallowed.

Product	Species	Test Results
Coban Premix		
<b>Acute</b>		
<b>Dermal</b>		
LD	Rabbit	> 2000 mg/kg (Coban 45: mortality)
LD50	Rabbit	2000 mg/kg (Coban 60: no deaths or toxicity)

Product	Species	Test Results
<b>Inhalation</b>		
LC50	Rat	4950 mg/m <sup>3</sup> , 1 hr (mortality)
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Monensin sodium (CAS 22373-78-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD	Rabbit	> 500 mg/kg (24% monensin sodium mixture)
<b>Inhalation</b>		
LC50	Rat	> 370 mg/m <sup>3</sup> , 1 h (24% monensin sodium mixture)
<b>Oral</b>		
LD50	Rat	34 mg/kg
<b>Skin corrosion/irritation</b>	Rabbit: Slight irritation. Based on available data, the classification criteria are not met.	
<b>Serious eye damage/eye irritation</b>	Rabbit: Corrosive. Immediate rinsing may prevent permanent damage.	
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Allergic reactions in a manufacturing setting have been reported. (Monensin Sodium) Grain dusts may cause sensitization by inhalation.	
<b>Skin sensitisation</b>	Did not cause sensitization on laboratory animals. (Monensin Sodium) Based on available data, the classification criteria are not met.	
<b>Germ cell mutagenicity</b>	In vitro and in vivo tests did not show mutagenic effects. (Monensin Sodium) Based on available data, the classification criteria are not met.	
<b>Carcinogenicity</b>	Animal testing did not show any carcinogenic effects. (Monensin Sodium) This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Based on available data, the classification criteria are not met.	
<b>Reproductive toxicity</b>	No effects identified in animal studies. (Monensin Sodium) Based on available data, the classification criteria are not met.	
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.	
<b>Specific target organ toxicity - repeated exposure</b>	Heart effects (degenerative and reparative tissue changes, electrocardiogram changes, congestive heart failure), muscle effects (skeletal muscle changes, elevated blood enzymes of muscle origin). (Monensin Sodium)	
<b>Aspiration hazard</b>	No aspiration toxicity classification.	

## 12. Ecological information

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

Components	Species	Test Results
Monensin sodium (CAS 22373-78-0)		
<b>Aquatic</b>		
Algae	EC50	Green Algae (Pseudokirchneriella subcapitata)
	NOEC	Green Algae (Pseudokirchneriella subcapitata)
Crustacea	EC50	Daphnia magna
Fish	LC50	Bluegill (Lepomis macrochirus)
		Rainbow trout
<b>Terrestrial</b>		
Other	LC50	Quail

### LILLY AQUATIC EXPOSURE GUIDELINES:

#### Monensin Sodium

Drinking water LAEG (at the point where surface water is taken for drinking water): 75 µg/l  
Chronic LAEG (at the edge of the chronic mixing zone): 55 µg/l

## Monensin Sodium

Acute LAEG (at the edge of the acute mixing zone):

562 µg/l

**Persistence and degradability**      Photolysis half-life (days): 43.9  
Photolysis rate constant (1/day): 0.0158  
Hydrolysis: none measured (pH 5, 7, 9)  
Soil degradation half-life (days): 7.5  
Greater than 50% loss in sandy, silt, and clay loam soils in less than 14 days. (Monensin Sodium)  
No data is available on the degradability of this product.

**Bioaccumulative potential**      No data available for this product.

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

Monensin sodium      2.75, (pH 7)  
3.79, (pH 9)  
4.24, (pH 5)

## Mobility in soil

### Adsorption

#### Soil/Sediment Sorption - Log Koc

Monensin sodium      > 5.63  
Result: (pH 4.5 and 6)

**Other adverse effects**      Not available.

## 13. Disposal considerations

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

## 14. Transport information

### TDG

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 available.

## 15. Regulatory information

### Canadian regulations

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

Not listed.

#### Precursor Control Regulations

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
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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** 21-September-2016

**Revision date** 15-February-2019

**Version No.** 02

**List of abbreviations** LEG: Lilly Exposure Guideline.

**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 SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY 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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**Revision information** Physical & Chemical Properties: Multiple Properties  
Physical and chemical properties: Explosive properties  
Other information: Disclaimer  
Other information: List of abbreviations