

1. Identification

Product identifier Trifexis

Other means of identification

Item Code CA4337, CA4339, CA4341, CA4342, CA4344, CA4332, CA4333, CA4334, CA4335, CA4336

Recommended use Veterinary Pharmaceutical

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company Name Elanco Animal Health
2500 Innovation Way
Greenfield, IN 46140
US

Phone: 1-877-Elanco1 (1-877-352-6261)

Email: lilly_msds@lilly.com

Emergency Telephone Numbers:

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

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SPINOSYN A		131929-60-7	50
SPINOSYN D		131929-63-0	9
Milbemycin A4 5-oxime		93074-04-5	0.7
Milbemycin A3 5-oxime		114177-14-9	0.2

Composition comments	Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels. Spinosad is a mixture of the following components: Spinosyn A (CAS# 131929-63-0) and Spinosyn D (CAS# 131920-60-7).
4. First-aid measures	
Inhalation	If crushed and exposure to content occurs: Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician for specific advice.
Skin contact	Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
Eye contact	If crushed and exposure to content occurs: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
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 center immediately.
Most important symptoms/effects, acute and delayed	May cause temporary irritation on skin or eye contact.
5. Fire-fighting measures	
Suitable extinguishing media	Water. Carbon dioxide (CO ₂). Dry chemical.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Fire or excessive heat may produce hazardous decomposition products.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing.
General fire hazards	Dust may form explosive mixture with air.
6. Accidental release measures	
Personal precautions, protective equipment and emergency procedures	Wear suitable protective clothing, gloves and eye/face protection. Avoid inhalation of dust. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	The following are recommended for manufacturing or other situations where exposure to contents may occur. Vacuum material with appropriate dust collection filter in place. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping. Be aware of potential for dust explosion when using electrical equipment. 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. Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes.
7. Handling and storage	
Precautions for safe handling	NOT INTENDED FOR HUMAN USE. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wear personal protective equipment. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Storage temperature: between 20 and 25 C (68 to 77 F). Excursions permitted from 15 to 30 C (59 to 86 F).
8. Exposure controls/personal protection	
Exposure guidelines	Supplier: TWA 0.3 mg/m ³ (Spinosad)
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Laboratory fume hood or local exhaust ventilation. The following are recommended for manufacturing or other situations where exposure to contents may occur.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear goggles/face shield.

Skin protection	
Hand protection	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
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.
Thermal hazards	Not available.
General hygiene considerations	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.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Tablet.
Color	Tan
Odor	Musty
Odor threshold	No data available
pH	No data available.
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.

Vapor pressure No data available.

Vapor density No data available.

Relative density No data available.

Solubility(ies)

Solubility (water) No data available.

Partition coefficient (n-octanol/water) No data available.

Auto-ignition temperature No data available.

Decomposition temperature No data available.

Viscosity No data available.

Other information

Density No data available.

Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

Potential for dust explosion 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 polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Fire or excessive heat may produce hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Components	Species	Test Results
Spinosad (CAS 168316-95-8)		
Acute		
<i>Dermal</i>		
LD	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5180 mg/m ³ , 4 hours
<i>Oral</i>		
LD	Rat	> 5000 mg/kg (female)
LD50	Rat	4444 mg/kg (male)
SPINOSYN A (CAS 131929-60-7)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l
Skin corrosion/irritation	Rabbit: No irritation (Spinosad) Based on available data, the classification criteria are not met.	
Serious eye damage/eye irritation	Rabbit: Slight irritation. (Spinosad) Based on available data, the classification criteria are not met.	
Respiratory or skin sensitization		
Respiratory sensitization	Due to lack of data the classification is not possible.	
Skin sensitization	Guinea pig: Not a skin sensitizer. Based on available data, the classification criteria are not met.	
Germ cell mutagenicity	Result in genetic toxicity assays (in vitro and in vivo): Negative (Spinosad) Based on available data, the classification criteria are not met.	
Carcinogenicity	Animal testing did not show any carcinogenic effects. (Spinosad) Based on available data, the classification criteria are not met.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. (Spinosad) Based on available data, the classification criteria are not met.	
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible.	
Specific target organ toxicity - repeated exposure	In animals, has been shown to cause vacuolation of cells in liver, kidney, and bone tissues and changes in blood and serum biochemistry. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. (Spinosad) Based on available data, the classification criteria are not met.	
Aspiration hazard	No aspiration toxicity classification (spinosad)	

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Spinosad (CAS 168316-95-8)			
Aquatic			
Algae	EC50	Algae	0.107 mg/l Navicula sp.
		Green algae (Selenastrum capricornutum)	105.5 ppm (currently known as Pseudokirchneriella subcapitata)
Crustacea	EC50	Daphnia	92.7 mg/l, 48 h
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	30 mg/l, 96 h
		Sunfish (Lepomis)	5.94 mg/l, 96 h

Persistence and degradability 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)

SPINOSYN A 2.8, at pH 5

Mobility in soil No data available.

Other adverse effects Not available.

13. Disposal considerations

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

14. Transport information

General information Sealed packets and articles containing less than 10 ml or 10 g of an environmentally hazardous substance may be transported as non-regulated under Special Provisions, IATA (SP A158), IMDG (SP 335), ADR (SP 335) and the U.N. Model Regulations (SP 335).

DOT

Not regulated as dangerous goods.

IATA

UN number UN3077
UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (Spinosad, Milbemycin Oxime)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards Yes
ERG Code 9L
Special precautions for user Not available.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN3077
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SPINOSAD, MILBEMYCINE OXIME)
Transport hazard class(es)
Class 9
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F

Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations This product is not known to be 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 - No
Delayed Hazard - No
Fire Hazard - No
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

Not regulated.

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

Not listed.

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

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

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** 09-17-2014**Version #** 01**Lilly Lab Code** Health: 1
Fire: 1
Reactivity: 0**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:

Elanco Animal Health
00+1+877-352-6261
00+1-800-428-4441**Revision Information**

Product and Company Identification: Product Codes
 Composition / Information on Ingredients: Undisclosed Ingredient Statement
 Exposure Controls / Personal Protection: OELs
 Physical & Chemical Properties: Multiple Properties
 Ecological Information: Ecotoxicity
 Transport Information: Material Transportation Information
 Regulatory Information: United States
 GHS: Classification