SAFETY DATA SHEETS

This SDS packet was issued with item:

078826123

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078826131 078826149 078826156 078826164 078849329 078849337 078849345 078849352 078849360 078905662 078905663 078926185 078926186 078926187 078926188 078926189

SAFETY DATA SHEET

1. Identification

Product identifier Trifexis

Other means of identification

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

Veterinary Pharmaceutical Recommended use

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information Elanco Animal Health **Company Name** 2500 Innovation Way Greenfield, IN 46140

US

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

Elanco Product Technical Support / Human or Animal Exposure Reporting: **Emergency Telephone:**

1-888-545-5973

Email: elanco_sds@elanco.com CHEMTREC: 1-800-424-9300 **Transportation Emergency** (Outside U.S. 1-703-527-3887) Telephone:

2. Hazard(s) identification

Physical hazards Not classified. Not classified. **Health hazards OSHA** defined hazards Not classified.

Label elements

Hazard symbol None. None. Signal word

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

Precautionary statement

Not available. Prevention Not available. Response Not available. Storage Not available. **Disposal** None known.

Hazard(s) not otherwise

classified (HNOC)

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Spinosad		168316-95-8	59
Milbemycin A4 5-oxime		93074-04-5	0.7
Milbemycin A3 5-oxime		114177-14-9	0.2

Remaining components of this product are non-hazardous and/or are present at concentrations **Composition comments**

below reportable levels.

Spinosad is a mixture of the following components: Spinosyn A (CAS# 131929-63-0) and Spinosyn

D (CAS# 131920-60-7).

Material name: Trifexis SDS US

4510 Version #: 03 Revision date: 03-29-2019 Issue date: 09-17-2014

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

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from

the chemical

Special protective equipment and precautions for firefighters

Water. Carbon dioxide (CO2). Dry chemical.

Fire or excessive heat may produce hazardous decomposition products.

Wear self-contained breathing apparatus and protective clothing.

General fire hazards Dust may form explosive mixture with air.

None known.

None known.

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

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

Occupational exposure limits

its This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

Biological limit values

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

Exposure guidelines Supplier: TWA 0.3 mg/m3 (Spinosad)

A Lilly exposure guideline has not been established. The above exposure guideline has been

established by the supplier.

Appropriate engineering controls

Laboratory fume hood or local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Chemical resistant gloves.

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

Respiratory protection Respirator selection must be based on known or anticipated exposure levels, the hazards of the

product and the safe working limits of the respirator. Use an approved respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate

protection factor.

Thermal hazards Not available.

Material name: Trifexis SDS US

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 Not available. Not available. Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

Flash point Not available. Not available. **Evaporation rate**

Flammability (solid, gas) No test data available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Vapor pressure Not available. Not available. Vapor density Relative density Not available.

Solubility(ies)

Solubility (water) Not available. Not available. **Partition coefficient**

(n-octanol/water)

Not available. **Auto-ignition temperature Decomposition temperature** Not available. Not available. **Viscosity**

Other information

Not explosive. **Explosive properties**

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

10. Stability and reactivity

Reactivity Not water reactive.

Chemical stability Material is stable under normal conditions. Possibility of hazardous Hazardous polymerization does not occur.

Conditions to avoid

None known.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

Fire or excessive heat may produce hazardous decomposition products.

products

reactions

11. Toxicological information

Information on toxicological effects

Material name: Trifexis 3/7

4510 Version #: 03 Revision date: 03-29-2019 Issue date: 09-17-2014

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

Components **Species Test Results**

Spinosad (CAS 168316-95-8)

Acute Dermal

LD Rabbit > 5000 mg/kg

Inhalation

LC50 Rat > 5180 mg/m3, 4 hours

Oral

LD50 Rat > 2000 mg/kg

Rabbit: No irritation. (Spinosad) Skin corrosion/irritation

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

Serious eye damage/eye

Rabbit: Slight irritation. (Spinosad) Based on available data, the classification criteria are not met. irritation

Respiratory or skin sensitization

Respiratory sensitization Due to lack of data the classification is not possible.

Guinea pig: Not a skin sensitizer. (Spinosad) Skin sensitization

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

Result in genetic toxicity assays (in vitro and in vivo): Negative (Spinosad) Germ cell mutagenicity

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.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

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.

No aspiration toxicity classification (spinosad) **Aspiration hazard**

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Milbemycin A3 5-oxime	e (CAS 114177-14-	9)	
Aquatic			
Acute			
Fish	LC50	Carp (Cyprinus carpio)	0.059 mg/l, 48 hours
Spinosad (CAS 168316	6-95-8)		
	ErC50	Navicula pelliculosa	0.079 mg/l, 120 h (static)
	NOEC	Navicula pelliculosa	0.036 mg/l
Aquatic			
Algae	NOEC	Duckweed (Lemna minor)	1.4 mg/l
Crustacea	EC50	Daphnia	7.37 mg/l, 48 h
		Water flea (Daphnia magna)	> 1 mg/l, 48 h (static)
	NOEC	Water flea (Daphnia magna)	0.0012 mg/l, 21 days (flow thorugh)

Material name: Trifexis SDS US
 Components
 Species
 Test Results

 Fish
 LC50
 Carp (Cyprinus carpio)
 4.5 mg/l, 96 h (flow through)

 NOEC
 Oncorhynchus mykiss
 0.5 mg/l Early life-stage (flow through)

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

Bioaccumulative potential No data available for this product.

Bioconcentration factor (BCF)

Spinosad < 500

Mobility in soilNo data available.Other adverse effectsNot available.

13. Disposal considerations

Disposal instructionsDispose 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 Effective January 1, 2015 by Special Provision, UN3077 and UN3082 when packaged in inner

packages of 5L / 5 KG or less are not subject to the dangerous goods regulations.

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 with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

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

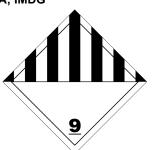
Environmental hazards

Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Not available.
sport in bulk according to Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

IATA; IMDG



Material name: Trifexis sps us

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.

Toxic Substances Control Act (TSCA)

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 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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.

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

 Revision date
 03-29-2019

Version # 03

List of abbreviations TWA: Time Weighted Average

Material name: Trifexis SDS US

4510 Version #: 03 Revision date: 03-29-2019 Issue date: 09-17-2014

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 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 0011+1-877-352-6261 0011+1-800-428-4441

Material name: Trifexis