



SAFETY DATA SHEET

1. Identification

Product identifier Component T-H Implant with Tylan

Other means of identification

Item Code AH0512

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 Sensitization, respiratory Category 1
Sensitization, skin Category 1
Reproductive toxicity Category 1A

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement

H360 May damage fertility or the unborn child.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.

Precautionary statement

Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume.
P280 Wear protective gloves/protective clothing.
P285 In case of inadequate ventilation wear respiratory protection.
P264 Wash thoroughly after handling.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Storage	
P405	Store locked up.
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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	%
Trenbolone Acetate		10161-34-9	59.88
Tylosin Tartrate	Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt) LSN 029510	1405-54-5	8.68

Other components below reportable levels

Composition comments	This product consists of Trenbolone Acetate (Component T-H) and Tylosin Tartrate packaged independent of one another and encased in a plastic cartridge belt that poses no exposure risk unless the belt is damaged.
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4. First-aid measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get medical attention immediately.
Skin contact	Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. 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. Get medical attention immediately.
Ingestion	If conscious, give the victim plenty of water to drink. 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 allergic skin reaction. May cause allergic respiratory reaction. May cause reproductive effects. Intact implants are not considered hazardous under normal handling procedures. Caution should be used to avoid contact with the contents which contain trenbolone acetate.

In men, overexposure may lead to gynecomastia (breast tenderness, breast nodules or enlarged breasts), galactorrhea (secretion of milk), decreased libido and damage to the testes resulting in atrophy and infertility. In women, overexposure may cause menstrual irregularities (breakthrough bleeding, change in menstrual flow, spotting, amenorrhea), temporary infertility, breast changes (tenderness, enlargement, and secretion), hirsutism (excessive hair growth), and fluid retention. Based on its similarity to estradiol even intermittent absorption of small amounts of trenbolone acetate may result in relatively high systemic levels.

General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
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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	Hazardous decomposition products formed under fire conditions.
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 inhalation of dust and contact with skin and eyes. See Section 8 of the SDS for Personal Protective Equipment.
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Methods and materials for containment and cleaning up

If pellets remain intact, scoop or scrape up material into containers for disposal. If pellets are broken, contain dry material by lightly misting with water, followed by vacuuming. 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

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection**Occupational exposure limits****Lilly (LEG)
Components****Type****Value**

Trenbolone Acetate (CAS
10161-34-9)

TWA (12hrs)

0.05 ug/m3

TWA (8hrs)

0.07 ug/m3

Biological limit values

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

Exposure guidelines

LEG = Lilly Exposure Guideline: 12 hour TWA <100 ug/m3 (Tylosin Tartrate)

Appropriate engineering controls

Open handling is not recommended. Use appropriate control measures such as fume hood, ventilated enclosure, isolator (eg. glovebag, glovebox), or closed material transfer systems.

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

In case of inadequate ventilation, use respiratory protection. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor. If material is handled in a fume hood or ventilated enclosure, consider using redundant respiratory protection.

Thermal hazards

Not available.

General hygiene considerations

The intact implant is not considered hazardous under normal handling procedures.

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

Cylindrical pellets packaged as an implant.

Color

Blue (Tylosin Tartrate)

White (Trenbolone Acetate)

Odor

Odorless

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	No oxidizing properties.
Potential for dust explosion	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

Components	Species	Test Results
Trenbolone Acetate (CAS 10161-34-9)		
<u>Acute</u>		
Oral		
LD	Rat	> 5000 mg/kg
LD50	Mouse	2700 mg/kg
Tylosin Tartrate (CAS 1405-54-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 600 mg/m3, 1 h

Components	Species	Test Results
Oral LD50	Rat	> 6200 mg/kg
Skin corrosion/irritation	This information is not available.	
Serious eye damage/eye irritation	May be irritating to eyes. (Tylosin Tartrate) Based on available data, the classification criteria are not met.	
Respiratory or skin sensitization		
Respiratory sensitization	May cause sensitization by inhalation.	
Skin sensitization	May cause sensitization by skin contact.	
Germ cell mutagenicity	Results in genetic toxicity assays (in vitro): Negative (Trenbolone Acetate)	
Carcinogenicity	Mutagenic in one mammalian test system. Not mutagenic in bacterial cell tests and other mammalian cell tests. Unlikely to pose a genotoxic risk to man. (Tylosin Tartrate, as free base) Based on available data, the classification criteria are not met.	
	IARC has not classified trenbolone acetate for carcinogenicity. NTP and OSHA have not listed trenbolone as a human carcinogen. Androgens as a class are considered probable human carcinogens.	
	Animal testing did not show any carcinogenic effects. (Tylosin Tartrate, as free base) Based on available data, the classification criteria are not met.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	May damage fertility or the unborn child.	
Specific target organ toxicity - single exposure	This information is not available.	
Specific target organ toxicity - repeated exposure	This information is not available.	
Aspiration hazard	No aspiration toxicity classification	

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Trenbolone Acetate (CAS 10161-34-9)			
Aquatic			
Crustacea	NOEC	Daphnia magna	0.58 mg/l, 48 h
Acute			
Crustacea	EC50	Daphnia magna	1.34 mg/l, 48 h
Tylosin Tartrate (CAS 1405-54-5)			
	EC50	Oats (Seedling)	140 mg/kg (Growth, as free base)
		Soybean (Seedling)	53 mg/kg (Growth, as free base)
		Tomato (Seedling)	43 mg/kg (Growth, as free base)
Acute			
	LC50	Duck (Mallard duck)	> 5000 mg/kg, 5 days (dietary, as free base)
		Quail (Bobwhite quail)	> 5000 mg/kg, 5 days (dietary, as free base)
Other	EC50	Pseudokirchnerella subcapitata	0.22 mg/l (average specific growth rate) (as free base)
Chronic			
	LC50	Earthworms (Eisenia fetida)	> 102.6 mg/kg, 14 days
		Quail (Bobwhite quail)	> 2000 mg/kg, 14 days
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	> 300 mg/l (as free base)

Components	Species	Test Results
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) Rainbow Trout
		> 300 mg/l (as free base) > 300 mg/l (as free base)
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	The product contains potentially bioaccumulating substances.	
Partition coefficient n-octanol / water (log Kow)		
Tylosin Tartrate	17, (pH 7) 17, (pH 9) 5, (pH 5)	
Mobility in soil	Soil degradation half-life (100 ppm): 62 days (tylosin factor A); 37 days (tylosin factor D) Soil degradation half-life (1 mg/kg; 4 soils): 50.3 to 105 days Leaching in soil column: none	
Adsorption		
Soil/sediment sorption - log Koc		
Tylosin Tartrate	1652 Silt Loom (pH 5.7) 200 Sandy Loom (pH 4.6) 2233 Sandy Loom (pH 7.6)	
Other adverse effects	Not available.	

Ecotoxicological Properties

Drinking Water

Components	Test Results
Tylosin Tartrate	36 µg/l, (Lilly Aquatic Exposure Guideline)

Chronic Exposure of Aquatic Organisms

Components	Test Results
Tylosin Tartrate	99 µg/l, (Lilly Aquatic Exposure Guideline)

Acute Exposure of Aquatic Organisms

Components	Test Results
Tylosin Tartrate	220 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.
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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.
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DOT

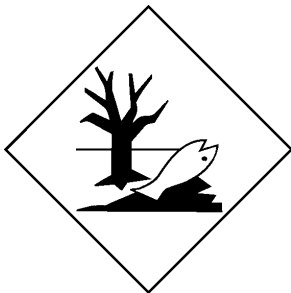
Not regulated as dangerous goods.

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Trenbolone Acetate, Tylosin Tartrate)
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. (Trenbolone Acetate, Tylosin Tartrate)

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** Not available.**Annex II of MARPOL 73/78 and
the IBC Code****IATA; IMDG****Marine pollutant****15. Regulatory information****US federal regulations**

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

CERCLA/SARA Hazardous Substances - Not applicable.

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 - 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 06-10-2015

Version # 01

Lilly Lab Code Health: 1
Fire: 1
Reactivity: 0
Special 1: R
Special 2: P
Special 3: A

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

Revision Information Product and Company Identification: Product Codes
Composition / Information on Ingredients: Undisclosed Ingredient Statement
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data
Ecological Information: Ecotoxicity
Transport Information: Material Transportation Information
Regulatory Information: United States
GHS: Classification