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SIGMA-ALDRICH

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Material Safety Data Sheet

Version 4.4

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Tylosin tartrate

Product Number : 33847

Brand : Fluka

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Respiratory sensitiser, Skin sensitiser

GHS Classification

Respiratory sensitization (Category 1)

Skin sensitization (Category 1)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P280 Wear protective gloves.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification

Health hazard: 2

Chronic Health Hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 2

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation

Skin

Eyes

Ingestion

May be harmful if inhaled. May cause respiratory tract irritation.

May be harmful if absorbed through skin. May cause skin irritation.

May cause eye irritation.

May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Classification	Concentration
Tylosin tartrate, D		
	Resp. Sens. 1; Skin Sens. 1; H317, H334	10 - 30 %
Desmycosin tartrate		
CAS-No. 84416-37-5	Resp. Sens. 1; Skin Sens. 1; H317, H334	10 - 30 %
Macrocin, D-tartrate		
CAS-No. 11049-17-5	Resp. Sens. 1; Skin Sens. 1; H317, H334	10 - 30 %
Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt)		
CAS-No. 74610-55-2	Resp. Sens. 1; Skin Sens. 1; H317, H334	10 - 30 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

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Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

Heat sensitive. Moisture sensitive. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OVIAG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	powder
Colour	light yellow

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available

Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	ca. 50 g/l
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY**Chemical stability**

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Oral LD50**

LD50 Oral - rat - > 6,200 mg/kg (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Inhalation LC50

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Dermal LD50

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Other information on acute toxicity

TDLo Subcutaneous - rat - 2,800 mg/kg (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Remarks: Dermatitis

LD50 Intravenous - rat - 695 mg/kg (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Convulsions or effect on seizure threshold.

Skin corrosion/irritation

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Serious eye damage/eye irritation

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Respiratory or skin sensitization

May cause sensitization by inhalation. (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

May cause sensitization by skin contact. (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Germ cell mutagenicity

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

(Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))
(Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Teratogenicity

(Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))
no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

Dermatitis (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

Synergistic effects

no data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards

Respiratory sensitiser, Skin sensitiser

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Tylosin tartrate, D	-	
Desmycosin tartrate	84416-37-5	
Macrocin, D-tartrate	11049-17-5	
Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt)	74610-55-2	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Tylosin tartrate, D	-	
Desmycosin tartrate	84416-37-5	
Macrocin, D-tartrate	11049-17-5	
Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt)	74610-55-2	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Text of H-code(s) and R-phrases mentioned in Section 3

H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Resp. Sens.	Respiratory sensitization
Skin Sens.	Skin sensitization

Further information

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