1. **IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING Product identifiers** 1.1 Tylosin tartrate Product name 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses Laboratory chemicals, Manufacture of substances 2. **HAZARDS IDENTIFICATION** 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] Respiratory sensitization (Category 1) Skin sensitization (Category 1) Classification according to EU Directives 67/548/EEC or 1999/45/EC May cause sensitization by inhalation and skin contact. Label elements 2.2 Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) May cause an allergic skin reaction. H317 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H334 Precautionary statement(s) P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves. P280 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ P342 + P311

Supplemental Hazard Statements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



physician.

none

R-phrase(s) R42/43	May cause sensitization by inhalation and skin contact.
S-phrase(s)	Do not breathe dust.
S22	Wear suitable protective clothing and gloves.
S36/37	In case of accident or if you feel unwell, seek medical advice immediately
S45	(show the label where possible).

2.3 Other hazards - none

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

3.2 Mixtures

Component		Classification	Concentration
Tylosin, (2R,3R)-2,3-dih	ydroxybutanedioate (salt)		
CAS-No.	74610-55-2	Resp. Sens. 1; Skin Sens. 1; H317, H334 Xn, R42/43	25 %
Desmycosin tartrate			
CAS-No.	84416-37-5	Resp. Sens. 1; Skin Sens. 1; H317, H334 Xn, R42/43	25 %
Macrocin, D-tartrate			
CAS-No.	11049-17-5	Resp. Sens. 1; Skin Sens. 1; H317, H334 Xn, R42/43	25 %
Tylosin tartrate, D			
v ,		Resp. Sens. 1; Skin Sens. 1; H317, H334 Xn, R42/43	25 %

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

4. FIRST AID MEASURES

4.1 **Description of first aid measures**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhale d

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.

- 4.2 Most important symptoms and effects, both acute and delayed Dermatitis (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))
- Indication of immediate medical attention and special treatment needed 4.3 no data available

5. **FIRE-FIGHTING MEASURES**

5.1 Extinguishing media

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

- Special hazards arising from the substance or mixture 5.2 no data available
- **Precautions for fire-fighters** 5.3 Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 **Further information** no data available

ACCIDENTAL RELEASE MEASURES 6.

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 **Environmental precautions** Do not let product enter drains.

- Methods and materials for containment and cleaning up 6.3 Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- **Reference to other sections 6.4** For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling 7.1

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, including any incompatibilities 7.2

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

Recommended storage temperature: 2 - 8 °C

Heat sensitive. Moisture sensitive.

7.3 Specific end uses no data available

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters**

Components with workplace control parameters

8.2 **Exposure controls**

Appropriate engineering controls

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

Personal protective equipment

Eye/face 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 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/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).

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties 9.1

- Form: powder a) Appearance Colour: light yellow
 - no data available Odour b) 1 4 .1 1 1

c)	Odour Threshold	no data available	
d)	pН	no data available	
e)	Melting/freezing point	no data available	
f)	Initial boiling point and boiling range	no data available	
g)	Flash point	no data available	
h)	Evaporation rate	no data available	
i)	Flammability (solid, gas) no data available		
j)	Upper/lower flammability or explosive limits	no data available	
k)	Vapour pressure	no data available	
1)	Vapour density	no data available	
m) Relative density no data available		no data available	
n)	Water solubility	ca.50 g/l	
0)	Partition coefficient: n- octanol/water	no data available	
p)	Autoignition temperature	no data available	
q)	Decomposition temperature	no data available	
r)	Viscosity	no data available	
s)	Explosive properties	no data available	
t)	Oxidizing properties	no data available	
Other safety information no data available			

10. **STABILITY AND REACTIVITY**

10.1 Reactivity no data available

9.2

- 10.2 **Chemical stability** no data available
- Possibility of hazardous reactions 10.3 no data available
- **Conditions to avoid** 10.4 no data available
- **Incompatible materials** 10.5 Strong oxidizing agents
- Hazardous decomposition products 10.6 Other decomposition products - no data available

11. **TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity

11.1

LD50 Oral - rat - > 6.200 mg/kg (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

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))

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.

Reproductive toxicity

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

Specific target organ toxicity - single exposure no data available (Tylosin, (2R,3R)-2,3-dihydroxybutanedioate (salt))

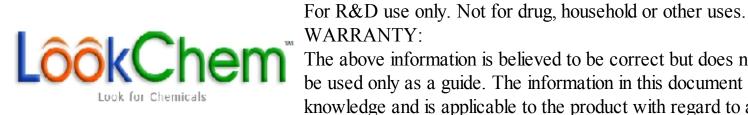
Specific target organ toxicity - repeated exposure no data available

	Aspiration hazard no data available (Tylosin, (2R,3R)-2	2,3-dihydroxybutanedioate (salt))		
	Potential health effects			
	Inhalation	May be harmful if inhaled. May cause re	espiratory tract irritation.	
	Skin	May be harmful if swallowed. May be harmful if absorbed through skir May cause eye irritation.	n. May cause skin irritation.	
	Signs and Symptoms of Exposure Dermatitis (Tylosin, (2R,3R)-2,3-dih			
	Additional Information RTECS: Not available			
12.	ECOLOGICAL INFORMATIO	Ν		
12.1	Toxicity no data available			
12.2	Persistence and degradability no data available			
12.3	Bioaccumulative potential no data available			
12.4	Mobility in soil no data available (Tylosin, (2R,3R)-2	2,3-dihydroxybutanedioate (salt))		
12.5	Results of PBT and vPvB assess no data available	sment		
12.6	Other adverse effects no data available			
13.	DISPOSAL CONSIDERATION	8		
13.1	Waste treatment methods			
	* •	lutions to a licensed disposal company. I in a chemical incinerator equipped with		
	Dispose of as unused product.			
14.	TRANSPORT INFORMATION			
14.1	UN-Number ADR/RID: -	IMDG: -	IATA: -	
14.2	UN proper shipping nameADR/RID:Not dangerous goodsIMDG:Not dangerous goodsIATA:Not dangerous goods			
14.3	Transport hazard class(es) ADR/RID: -	IMDG: -	IATA: -	
14.4	Packaging group ADR/RID: -	IMDG: -	IATA: -	
14.5	Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no	
14.6	Special precautions for users no data available			
15.	REGULATORY INFORMATIO	N		
	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.			
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture no data available			
15.2	Chemical Safety Assessment no data available			
16.	OTHER INFORMATION			

Text of H-code(s) and R-phrase(s) 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
Xn	Harmful
R42/43	May cause sensitization by inhalation and skin contact.

Further information



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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.